



HULL WATER POLLUTION CONTROL FACILITY

August
2021

MONTHLY OPERATING REPORT



woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

NPDES NO. MA0101231

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Cover pictures:

[top] Pump Station #4 bypass pump set up, while piping repairs being completed

[bottom] D Street Stormwater station – auxiliary pump set up in the event needed during forecasted August tropical storms/rain events.

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 August 2021.

- No lost-time incidents for the month of August.
- Continued/On-going covid-19 safety operations: Regular daily operations and staff scheduling, adhering to company and CDC guidelines and updates. Staffing levels normal as it pertains to covid19. Resume face mask use per Town mandate.
- There were **152** effluent samples taken in the month of August [details on page (12).] All effluent samples collected were compliant. The average daily flow for the month was 1.58 MGD. A total of 5.33 inches of rainfall was recorded, with the highest daily total amount recorded on 8/4-8/5 [3.17"]. Process conditions remained compliant. The peak daily flow for 8/5 was 4.04 MG. Additional staff coverage and remote assistance provided to maintain plant systems during the high flow periods.
- There was one Sanitary System Overflows [SSO] reported, because of a small overflow at the Primary Distribution Box, a high flow period.
- The plant and collection system odors were low to moderate as flows were above average during the month. Remote monitoring with the Vapor-Link to monitor H2S levels.
- The MCC #2 electrical incident corrective work continued and was completed by the end of August. W&C worked with the HSD on providing information and assistance as needed.
- Evaluation of aeration Tank #3 – tank cleaning completed and hardware and piping inspection
- The Asset Management Accounts summaries for contract year #7 is attached. Latest revision date: 11/22/21.
- There were four grinder pump replacement call outs during the month of August.
- Tentative date for electrical MCC and switch gear maintenance by EESCO set for September
- W&C O&M continued to support the Engineering projects – pump station #9, plant influent and secondary system, pump station #4 change-order work.
- Plant Staffing – Plant O&M Tech 1 – new employee started on 8/4/21.
- Weekly Bio Bot sampling continuing. [Covid-19 Wastewater Monitoring Program].

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



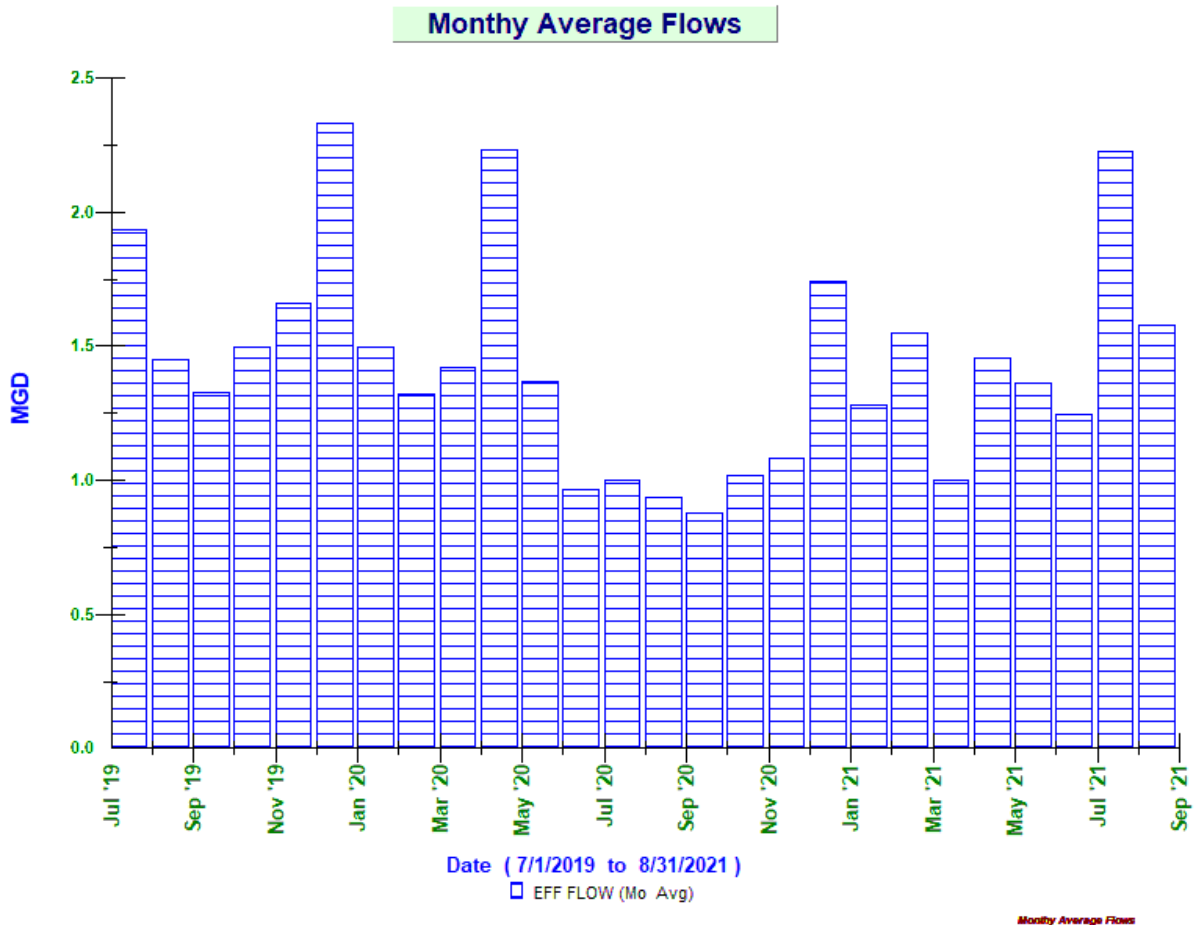
Average Daily Flows and Loadings for the Month:

| | Eff Flow MGD | Inf Flow MGD | Inf BOD LBS | Inf TSS LBS | Eff BOD LBS | EFF TSS LBS |
|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| Aug 2019 | 1.449 | 1.684 * | 1617 | 4326 | 64 | 142 |
| Aug 2020 | 0.936 | 0.975* | 1145 | 1875 | 42 | 135 |
| Aug 2021 | 1.579 | 1.89* | 1970 | 3516 | 37 | 74 |

* On-Going -The existing influent flow meters are strap on doppler flow meters, and the internal & external pipe condition prevents getting a strong signal. The staff utilizes the area velocity meter in the aeration tank inlet channel as well as the headworks influent Parshall Flume meter. 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.

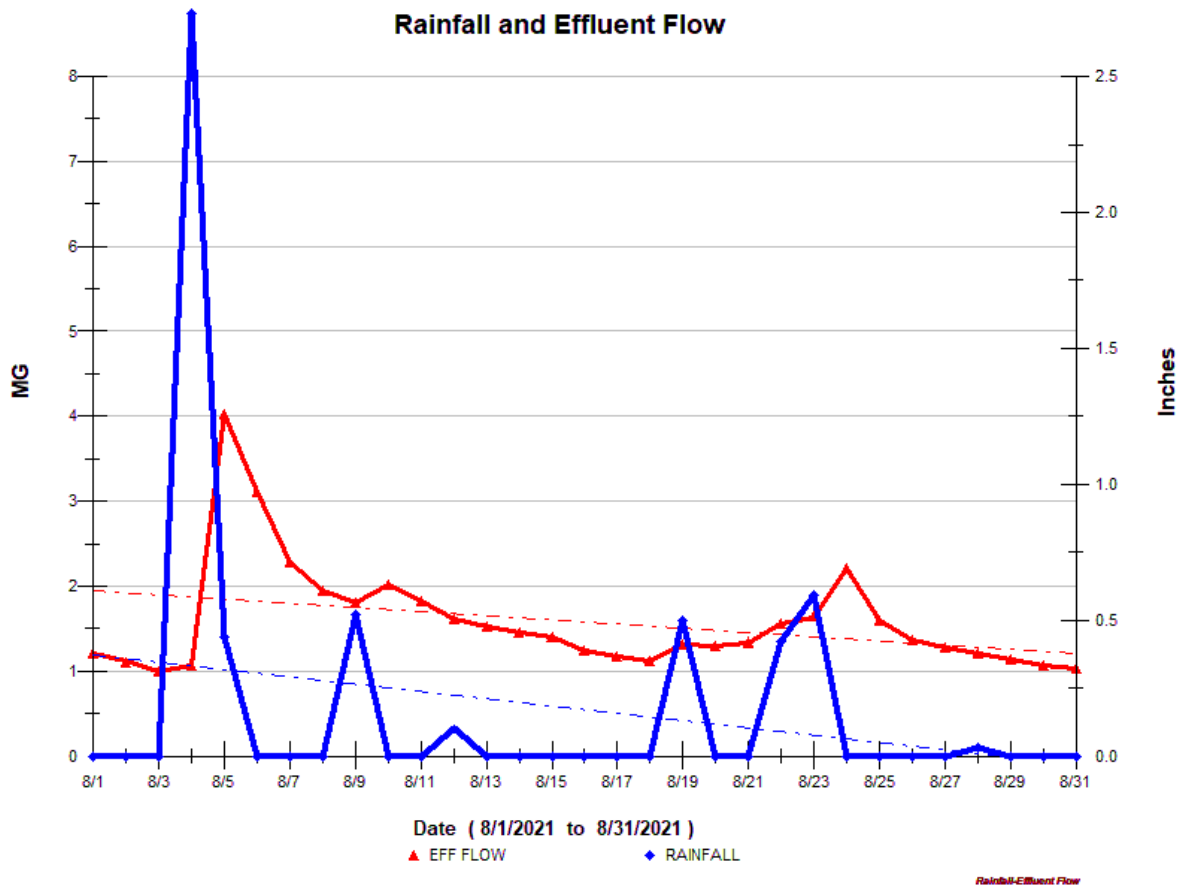
2.1 AVERAGE EFFLUENT MONTHLY FLOWS – 2+ YEAR COMPARISON

ery

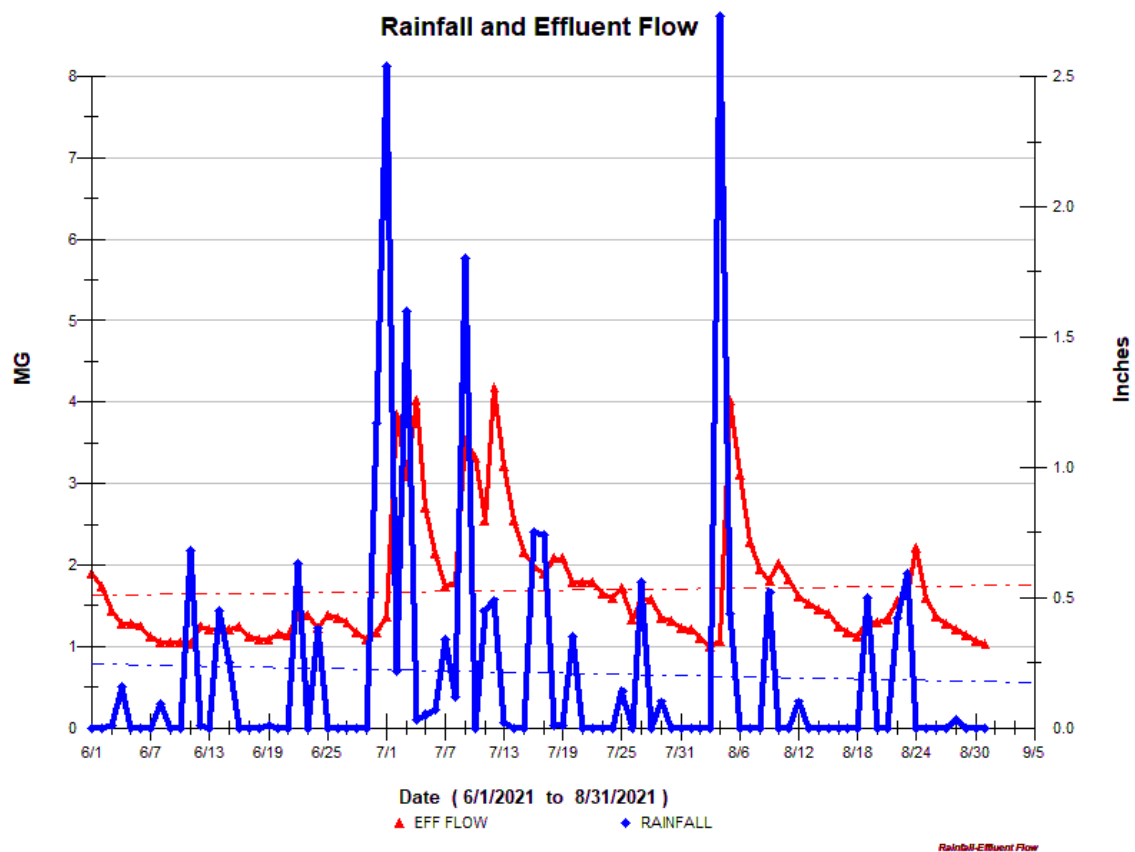


The monthly average flow for August was 1.58 MGD, lower than the previous month, but considered a wet month. The total precipitation for the month was 5.33 inches, with 3.17 inches of rain on 8/4-5. The graph shows the 2-plus year summary of the monthly average flows. 2021 August average almost 0.5MGD higher than August 2020.

2.2 MONTHLY SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



This graph shows the days where precipitation occurred [rainfall] [Blue Peaks]. This graph indicates that there were several wet weather days in August. The wet weather did impact on the plant flows.



This graph shows the data from the last 3 months and indicates the times when rainfall impacted the plant flows. 3.17 inches of rain fell during the 8/4-5 period.

3 COMPLIANCE



➤ Plant Effluent

There were no permit exceedances in the month of August.

- Plant process conditions were very stable during the month, even as the daily flow average was 0.5 MGD higher for the month.
- Continued with one diffused aeration tank and one mechanical aeration tank in service while aeration tank #3 repairs being made. The process mode continues as a complete mix arrangement where RAS flow was returned to both aeration tanks.
- Pictured [L to R]: Aeration tank #1, #3, final clarifier



Aeration tank #3 loss of air due to piping failure Aeration tank #2 – mechanical aerator

- High flow management activity –
 - 8/5 – rain event pushed flows up, where throttling of the influent flows needed. Additional tanks put online, and the influent gate used for remainder of the day into the late evening to manage flows into the facility. One additional primary clarifier and an additional secondary clarifier placed on-line. Remote SCADA monitoring and adjustments as need.

- 8/19-21 – storm preparation for anticipated TS. Flood barriers installed, various areas sandbagged, trash pumps set up at D Street, and secondary clarifiers.
 - 8/20 - storm planning. Several calls made for electrician availability and other needs. Preparedness update form completed and sent to HSD. Provided updates as needed to HSD over the course of the weekend.
- A Copy of the monthly NPDES reports for August 2021 was submitted to the EPA & DEP and then forwarded to the Hull Sewer Dept.
- Quarterly WET test samples collected.
- Storm preparedness for tropical Storms in late August – “Henri” and “Ida”.



- There was one sanitary system overflow event logged, as plant flows rose very quickly due to excessive rainfall. While initiating additional tankage online and throttling back on the influent gate that allows flow into the facility, a small quantity of sewage overflowed the distribution box by the primary clarifiers. The liquid quantity was small, and confined to the plant property, with no runoff to the nearby drainage structures. A full SSO report for the 8/5 incident was submitted. The area was cleaned up and lime applied.





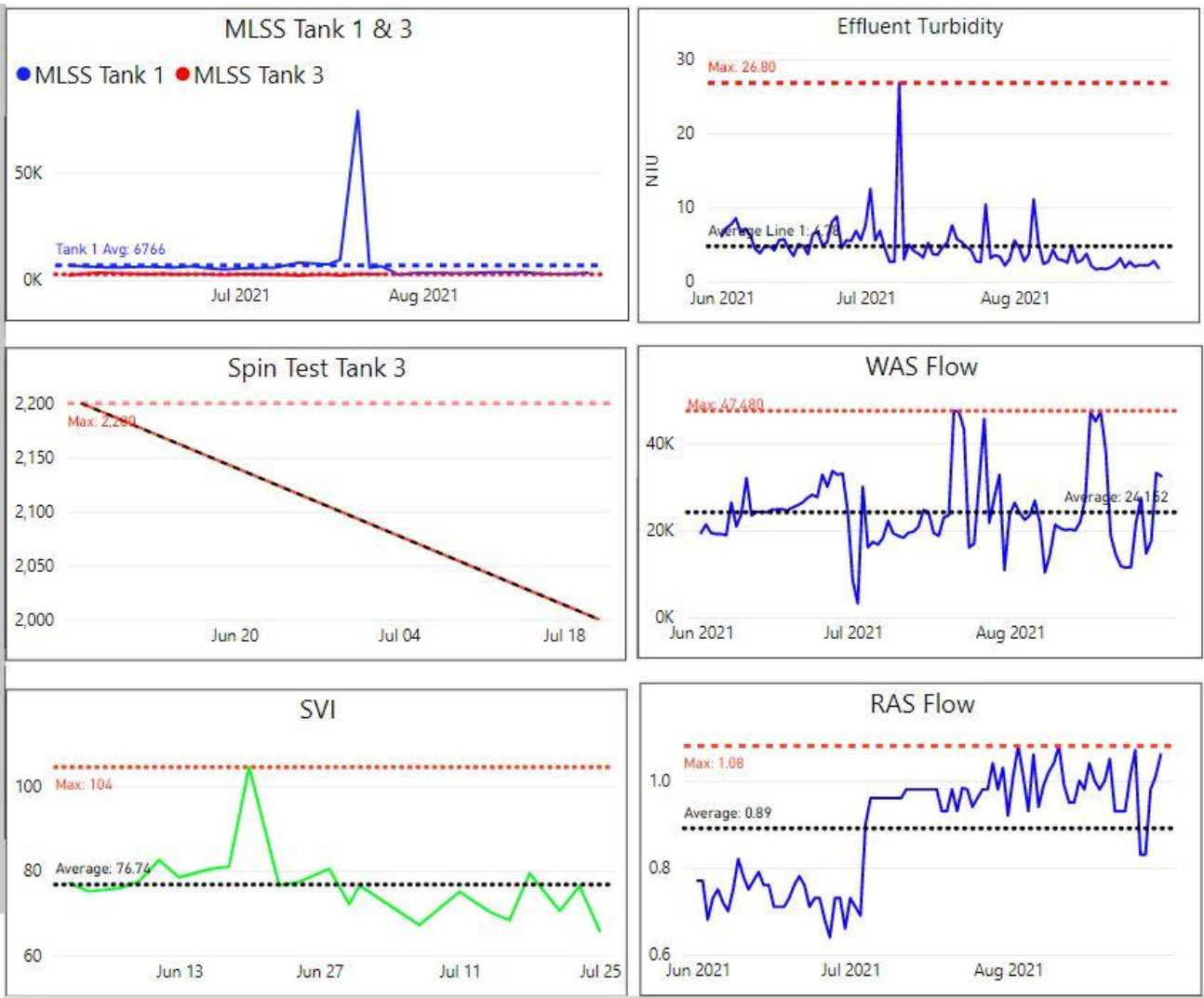
Hull Wastewater Treatment Facility

8/1/2021

8/31/2021



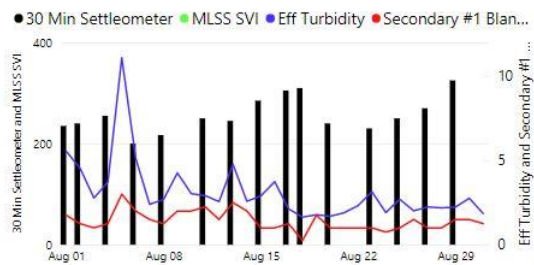
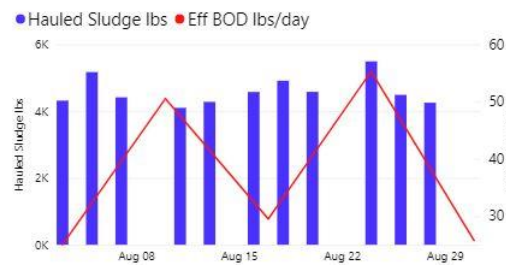
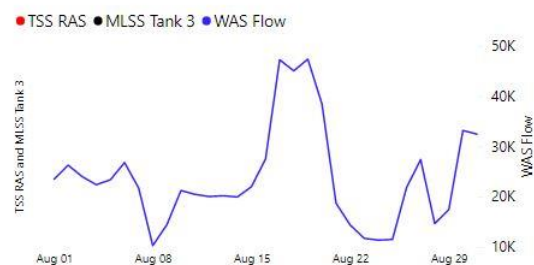
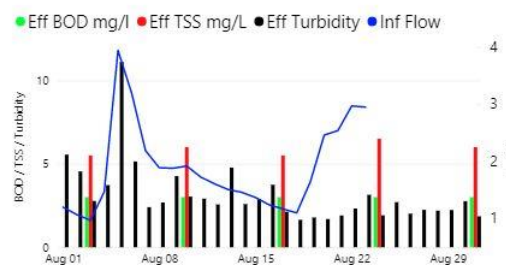
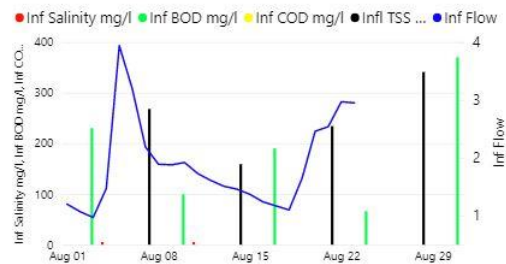
Monthly Process Summary graphs from power BI – August 2021.



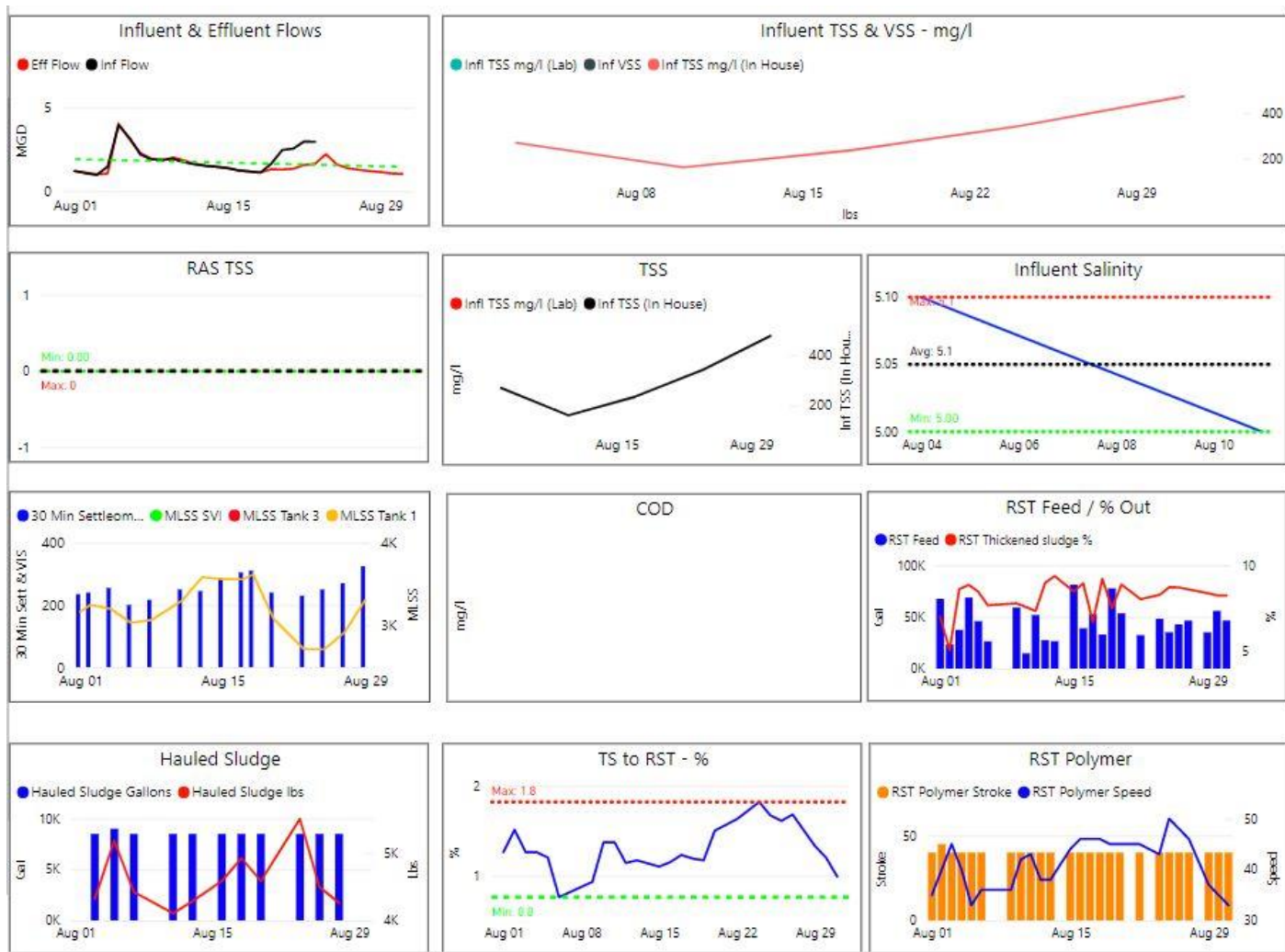
Graphs shows trending of secondary processes using Power BI for the 3-month period ending on 8/31/21. The tank solids levels under aeration showed little or no change, and wasted gallons were stable until the end of the July when the aeration system piping issue arose. The sludge settling that is measured as SVI [sludge volume index] remained low [a positive sign]. Effluent turbidity was stable and trending lower.

Hull Wastewater Treatment Facility Drylet Parameters

8/1/2021 8/31/2021



Various Power BI Graphs [related to Drylet] shows trending of various processes – August 2021.



Additional Power BI Graphs that show trending of various parameters – August 2021

4 KEY PERFORMANCE INDICATORS

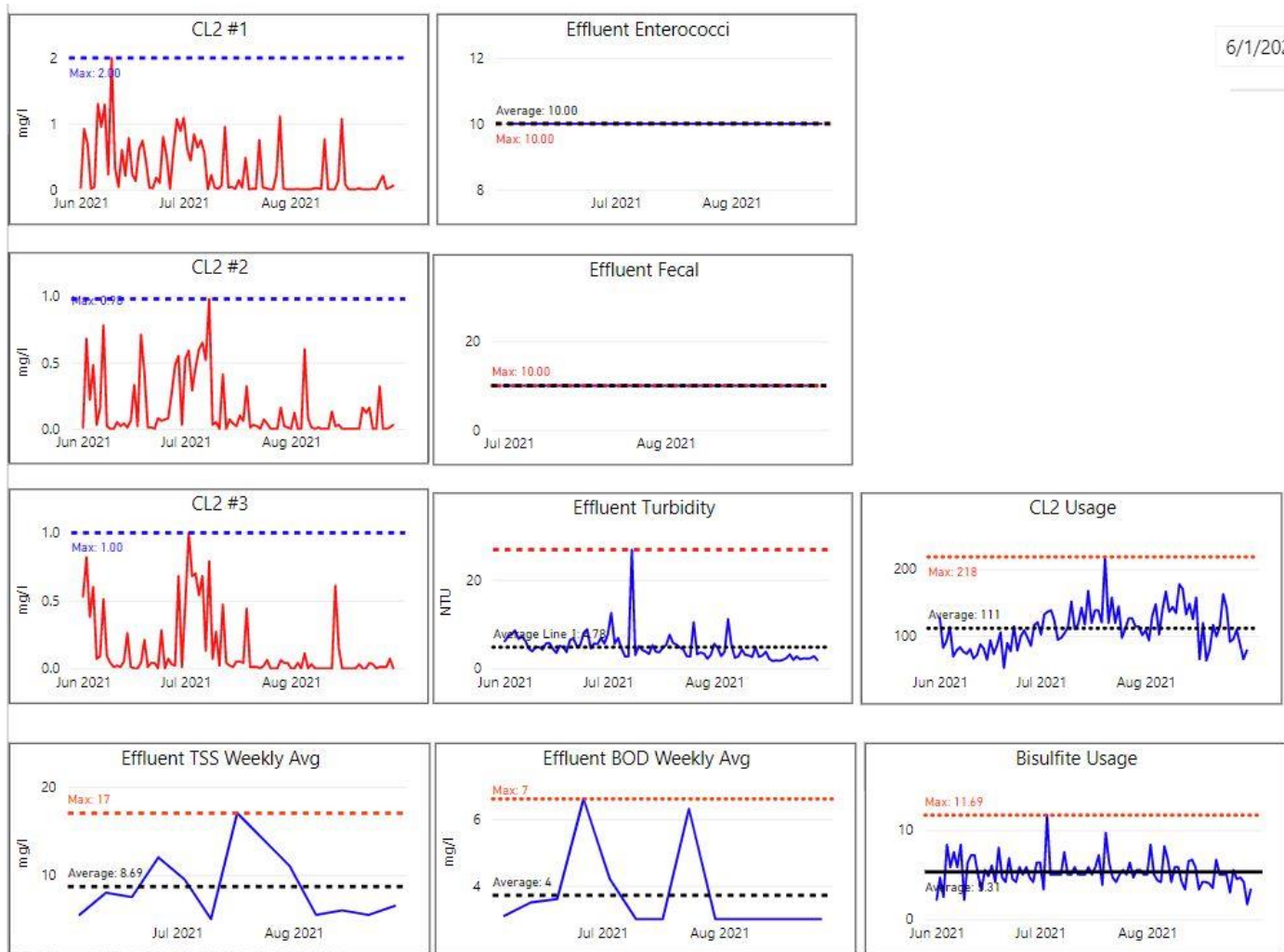


4.1 WATER QUALITY – AUGUST 2021

| 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 | 5.5 | 6.9 | 5 | 0 |
| Eff TSS | LBS | | | 1152 | 768 | 1 X Week | 74.5 | 45.9 | 119.8 | | 0 |
| % TSS Rem | % | | 85 | | | 1 X Month | 98.0 | | | | 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 | 37.2 | 25.0 | 55.3 | | 0 |
| % BOD Rem | % | | 85 | | | 1 X Month | 98.4 | | | | 0 |
| Eff Chlorine | MG/L | 1.0 | | | 0.7 | 3 X Day | 0.06 | 0.00 | 0.36 | 93 | 0 |
| Eff Fecal | #/100 ML | 260 | | | 88 | 1 X Week | 10 | 10 | 10 | 4 | 0 |
| Eff pH | SU | 8.5 | 6.5 | | | 1X Daily | 6.9 | 6.8 | 7.1 | 31 | 0 |
| Enterococci | CFU/100 ML | 276 | | | 35 | 1 X Week | 10 | 10 | 10 | 4 | 0 |

There were **152** effluent samples taken in the month of August.

6/1/2021

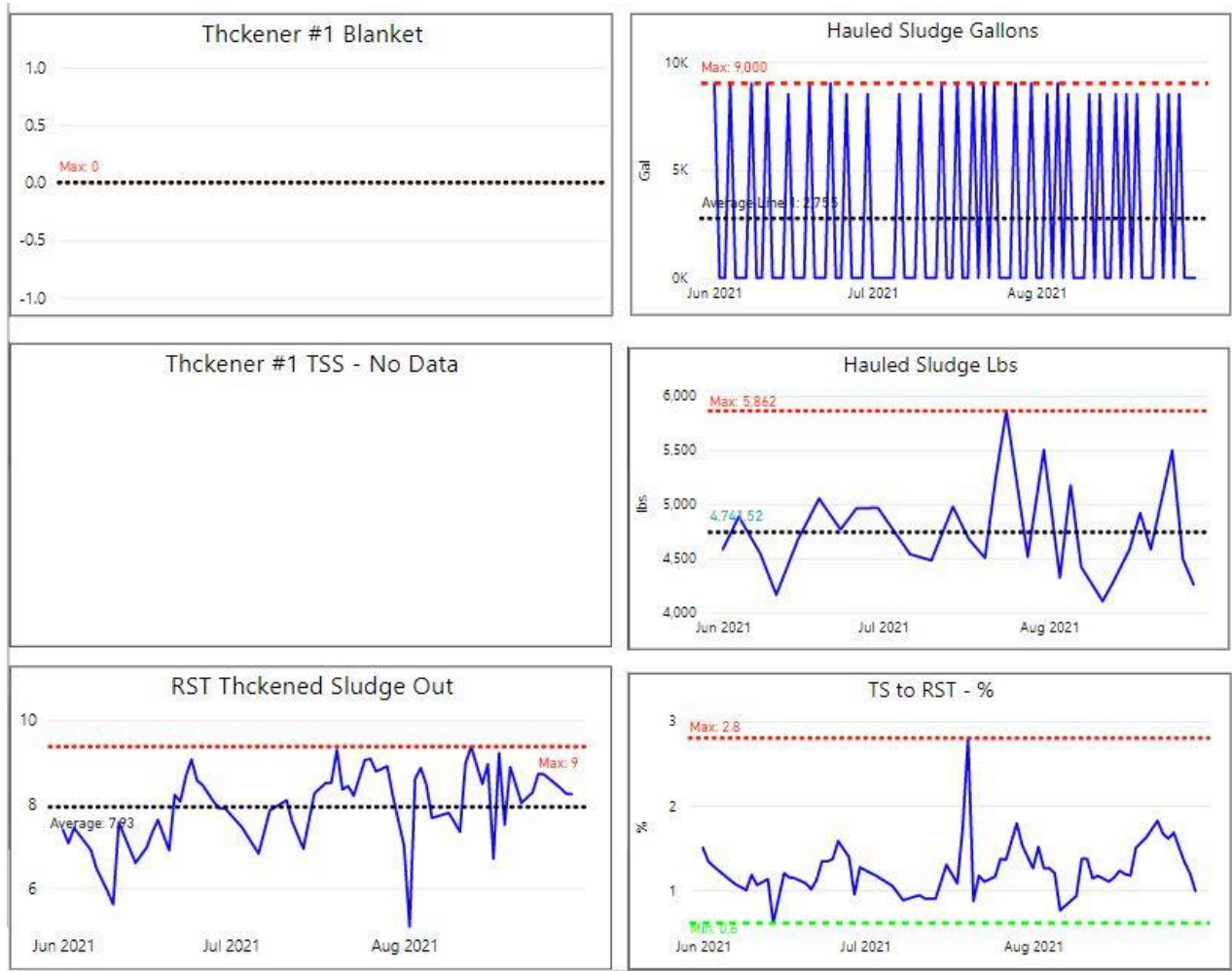


Power BI graphs showing effluent compliance for the last 3-month period ending on 8/31/21 - chlorine residuals, effluent compliance, & chemical use. Bleach [sodium hypochlorite] & sodium bisulfite stable, and effluent quality was stable. Turbidity [clarity] of the effluent improved.

Gallons Treated vs Sludge Disposed

| Month | Effluent Treated, MG | Sludge Disposed, Gals |
|-------------|----------------------|-----------------------|
| August 2019 | 44.90 | 78,500 |
| August 2020 | 29.01 | 42,500 |
| August 2021 | 48.96 | 94,000 |

Additional Power BI graphs for sludge solids for 3-month period ending 8/31/21. Trends indicate heavier solids/sludge production for July-Aug period. Process changes due to aeration system failure, and partly due to seasonal increase.



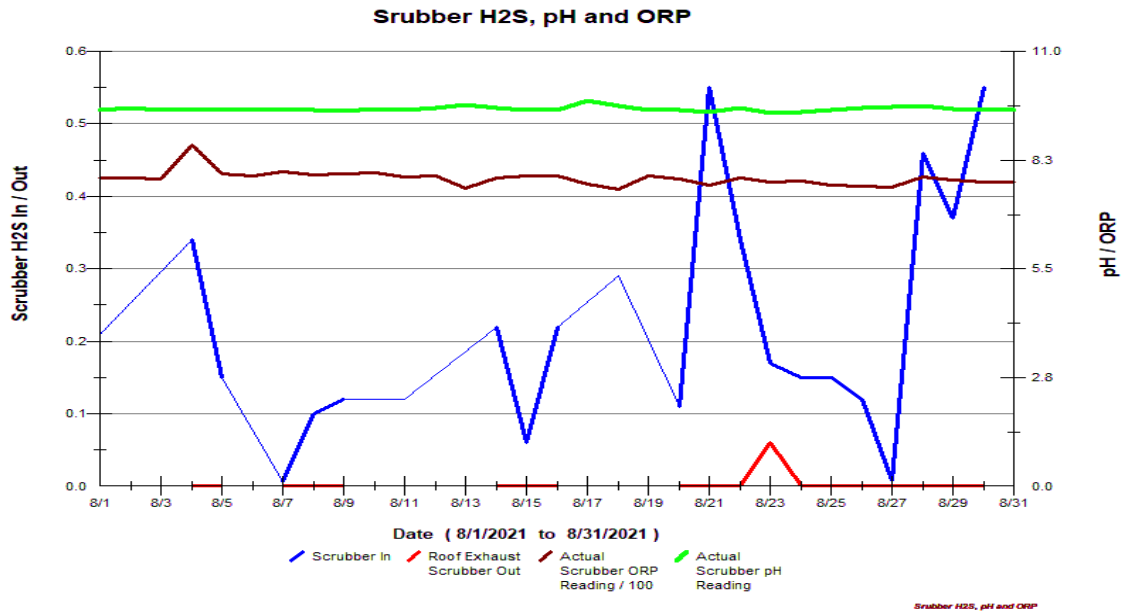
5 ODOR CONTROL

There were two odor complaint calls received during the month of August.

- 8/1 at 2pm– aeration tank #3 – remaining solids from taking tank offline. Tank cleaning was still in progress.
- 8/3 at 6pm – odors from aeration feed channel, due to stagnant area. Additional flushing water added to move things around and lessen the odor.

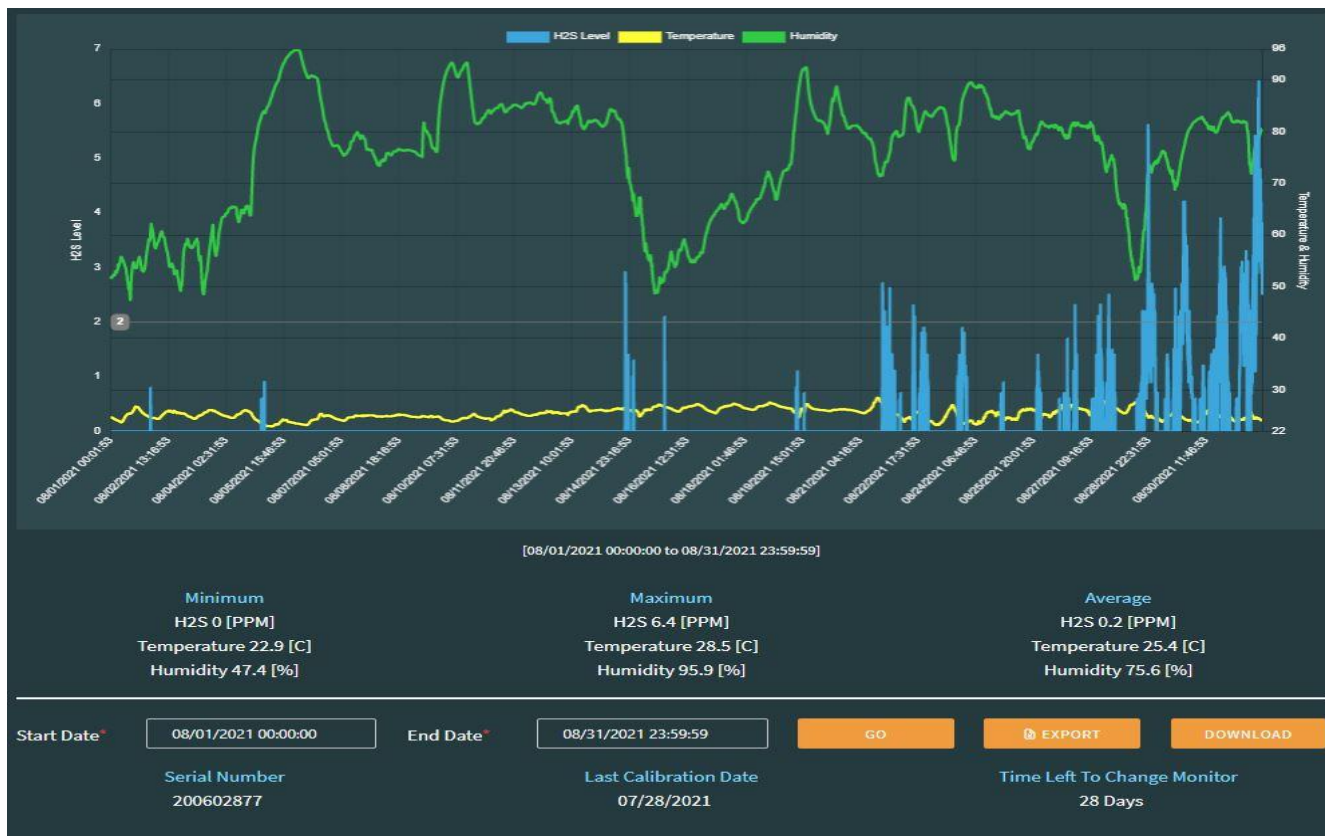
The Bioxide system was on, and the feed rates were adjusted as needed according to data seen at Nantasket/Water MH and XYZ/Nantasket MH. The monthly graphs are attached below.

- “In-Pipe” bacteria – no monthly or bi-monthly changeouts completed in August.
- No changes: Mixing systems/aerators were all functional and in timed mode at the pump stations with, except for pump station #3. [Bioxide addition is at PS 3], and at PS #5, with newer Flygt pumps, as the mixer is causing air entrapment in the new pumps.
- No changes - Hydrogen sulfide monitoring units [H₂S] were recording and being trended on the odor scrubber for monitoring inlet and outlet H₂S levels. The scrubber fan speed increased to maximum speed. [see graph below]
- Weekly Neighborhood monitoring around the plant done as needed.
- The gravity thickener remained off-line. The Primary tanks were used only as needed for high flow management. [In service for very short duration and tanks then were pumped down and cleaned out.



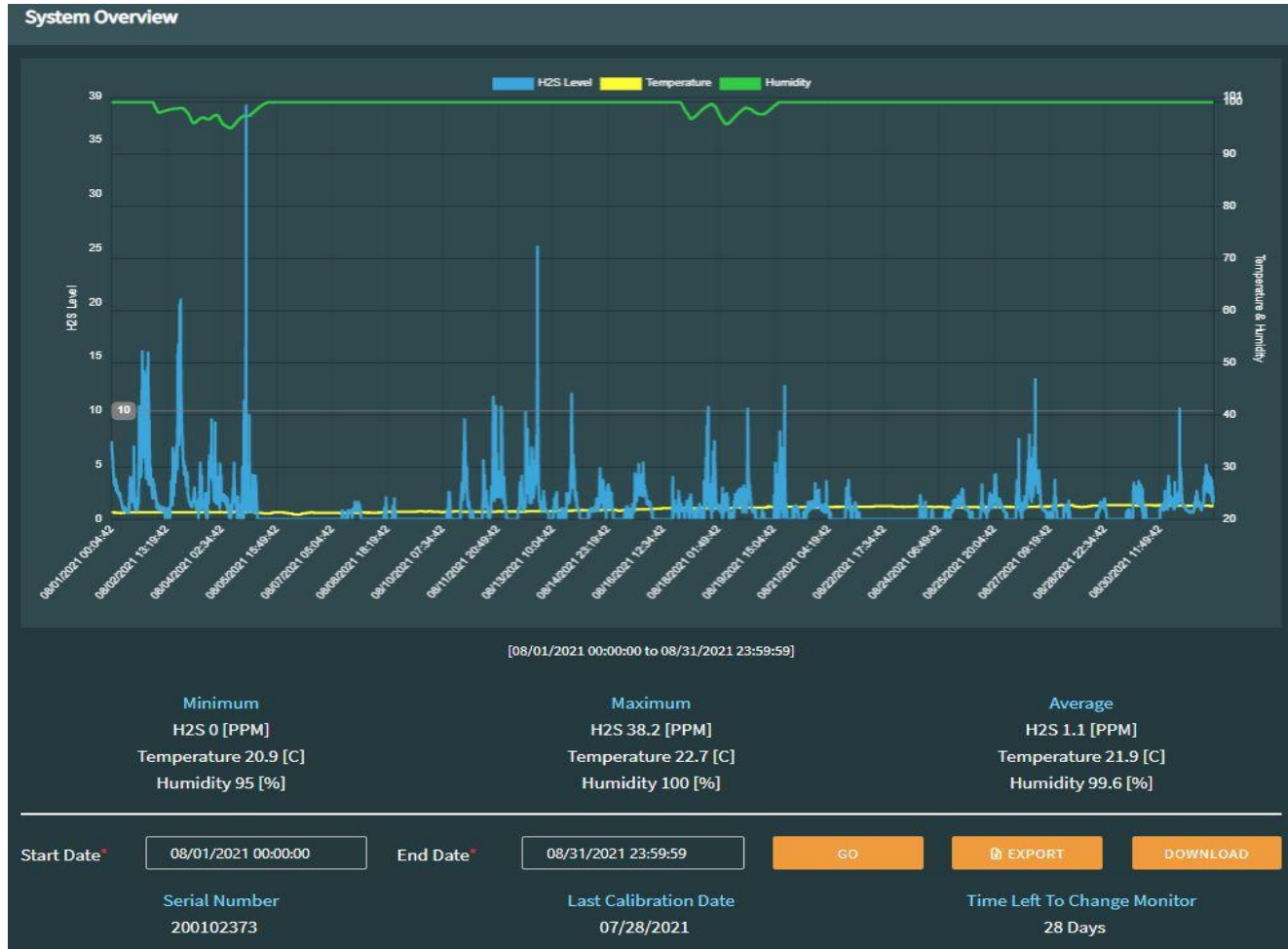
[pictured below: Scrubber trend, and trending graphs for H2S levels recorded from the vapor link system cellular at manhole at XYZ Street/Nantasket Ave and Nantasket Ave/Water Street.

XYZ – Nantasket Ave [closest to plant]



The odor data logging unit at XYZ that was being used to monitor overall H2S levels close to the plant has had little or no H2S present. There were spikes seen and feed rates were increased as needed from mid-month forward. When system flows were high, the chemical feed rates were lowered, as there is less sulfide production seen

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



Pump station #3 - Bioxide stored here and where the chemical is added. The H2S level is monitored at the end of the force main at Nantasket & Water Street. The goal is for the excess nitrate concentration remaining in the sewage to be available to treat the additional H2S added from other parts of the system – PS4, contributions from lines feeding the interceptor, PS5, PS6, etc. all the way to the plant.

6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

The SEMS monthly work order summary for August is compiled and attached for review.

Additional key items of note are listed below.

- Continued working on MCC2 issues. Completed the installation of the two new VFD's for the aeration blowers, repair all damaged wiring, clean up MCC and area.



- Aeration tank #3 repairs – evaluation of the tank hardware deficiencies made, and replacement hardware needed. All new concrete floor anchors installed, due to corrosion of the existing components. W&C staff working with Lydon to complete the repairs needed. Pictured: Ongoing repairs, and corroded anchor plate.



- Pump Station #4 repairs – Bypass pumping set up by D&C Construction and repair work commenced on Monday 8/16. W&C cleaned out the wet well, after the bypass pumping was started and the sewer line to the wet well was plugged. D&C work started with the demo/removal of the old valves and piping, followed by W&C's inspection and cleaning of the pumps. The new suction HDPE pipes were sleeved in from the wet well and fused by D&C. Then the pump discharge piping was also replaced. The new valves, check valves, and piping pieces were installed, and work completed in 4 days. The station service was resumed on Thursday 8/20. All the work was completed safely and without incident. [pictured – L to R: concrete debris removed from pump, bypass set up, old pipe components]



Pictured: New components installed: top – new suction pipe and valve, bottom: new discharge check valve, isolation valve and 3-way pipe & discharge HDPE pipe.



- 75HP aeration blower motor sent out for overhaul to First Electric – bearing and shaft issues.
- Send out several motors that were stored in blower room [second floor] for evaluation, after inventory and several of the motors were for equipment no longer at the facility.
- Electrician installed new piping from top level to mid-level for control of pumps and deragger equipment. New conduit and fixtures for lower pump room lighting also installed.
- Develop request for quotation [RFQ] for new pump replacements “in kind” at PS 4.
- RAS pump #1 rotating assembly sent out for repairs.



6.2 ASSET MANAGEMENT ACCOUNTS

- Please see the attached summary totals and planned expenditures for the Asset Management accounts for contract year (7). Most recent through **11/22/21**.
- Planned expenditure list updated. Monthly review & update.

7 SAFETY



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

- No lost time incidents reported for August
- Monthly PM's - Emergency eyewash and shower inspections, fire extinguisher and emergency lighting inspections completed. Monthly facility safety inspection completed.
- On-going Coronavirus Covid-19 awareness and updates discussed – daily & as needed. Post updated signage, discuss covid protocol changes. Ongoing: Work with onsite contractors to ensure that Covid-19 procedures in place and being followed. Company Covid Standdown to discuss company changes.
- On-going – daily safety briefing meetings with staff, covid updates & reminders, site specific safety policies for sub-contractors, safety tailgate meetings. Pure Safety topic– August – Respiratory Protection.
- Monthly staff safety meeting conducted on 8/31/21. Major topics discussed: Covid updates, living well reminders, Job Aids: heat stress, hearing protection, hurricane preparedness, H&S attitude. Other topics: Hurricane preparedness, face coverings, dehydration, and heat stress, hearing protection.
- Staff CPR/First Aid training renewal where needed. New hire training/on-boarding.

8 STAFF DEVELOPMENT

Training is an important part of any operation to ensure employee health and safety is assured, quality standards are maintained, 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. W&C “near-miss” incidents at all projects for July discussed. Staff required to complete Cyber Security training from W&C.
- Regular [usually daily] operational updates and process control discussions, pump station operations, especially with construction projects going on at the plant and pump stations. Safety Covid-19, dig-safes, etc.

Staffing related items:

- The regular staff labor was supplemented by the two O&M Specialists as needed to cover all the necessary shifts, since the regular staff was reduced by one person. Paul Horigan and Jody St. George provided the additional assistance.
- Weekend staff schedule updated and continued to have some Saturday & Sunday staff coverage on overtime basis and with use of part-time staff. Sunday coverage rotation continued with Aram, Roger, and Joe.
- Mass Maritime [MM] intern Joel Terrio completed internship & worked out very well. An internship survey/questionnaire was completed. Joel T will remain on staff in a part-time role [working weekends] through Summer 2022. Pictured below: Joel Terrio presenting summary of internship experience in Hull.
- New hire Luis Bello [O&M Tech 1] started on 8/4/21, On-board training & orientation completed.



9 COLLECTION SYSTEM

9.1 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 | | | | | | | | |
| April 2022 | | | | | | | | |

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

9.2 COLLECTION SYSTEM MAINTENANCE

Woodard & Curran assisted/conducted camera work and sewer system support in the Hull collection system at the following areas during the month of August.

- In-Pipe units – on-going maintenance of dosing units as needed. Staff conducts board troubleshooting, dosing pump repairs and replacements, and works with “In-Pipe” technician on these issues.
- All Pump station generators loaded, and non-loaded generator runs were done for the month.
- All Pump station wet wells were inspected in August. Monthly Pump Station Inspections completed and combined with monthly station PM's.
- Upload new/updated tie-cards to the UC as requested.

- Grinder pump summary:
 - 11 North Truro
 - 15 Logan Ave.
 - 26 Rockview.
 - 49 Rockaway

Dig Safe mark outs:

- 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.

Collection system support: Ongoing backup and blockage call outs requiring an increase in manpower and time to support. Below summarizes W&C's efforts at the various call out locations.

- Complete emergency dig-safe requests & regular dig safe mark outs, when able to complete them.
- 8/4 – 297 Nantasket Ave – back up call at 3pm. Main lines were clear
- 8/22 – various responses to pump stations due to tropical storm – no major issues.
- 8/26 – PS 1 – reset soft starters for pumps after power loss.
- 26 Roosevelt - blockage was homeowner side. Main was clear. Use sewer push camera to locate the lateral off the main.
- 8/30 - DW/JT assist DPW at 8 Pt Allerton - use push camera to inspect 4-inch pipe through a broken lateral on a drain line. Also, provide couplings and pipe for repair.
- 8/21 - Late day comm fail at PS6 - found UPS had tripped. Reset and PLC powered back up. All ok.

Collection system work is being documented and tracked in Utility Cloud and a summarized report for the month of August has been included as an attachment with the Monthly Operating Report.

10 PROJECT MANAGEMENT & ADMINISTRATION



10.1 ON-GOING PROJECTS AND SUPPORT ITEMS

August updates:

- PS1 – mid-level leakage checked out and determined that the leakage is unrelated to ALU's recent work. Some remediation will be needed for the crack in the foundation.
- Review of effluent pump replacement needs at the facility – the 60HP pump was sent out for evaluation, a replacement 35HP pump due to age and lack of seal protection is recommended. Requested a replacement cost for the 20HP effluent pump.
- Ongoing – support of engineering projects with review and feedback provided – PS9 and generator questions, & 90% design on the influent pumps/secondary project. As able to participate in the discussion calls, GMPS inspections.
- Pump capacity flow checks at PS 4 and LS A with Jason K and Claudia B. New pressure gauges installed and wet well drawdowns and fill up conducted several times. AV assisted.



- Worked with HSD, investigation team, & electrician to restore full operability to MCC #2. Town eventually decided not to pursue an insurance claim.
- Ordered parts from Xylem/Sanitaire to replace the parts needed to fix aeration tank #3. All mounting hardware was replaced with 316 SS hardware.
- Project **On Hold**: Sludge holding tank #1, diffuser piping. Consider for possible 2022 [08M] project [year #8].
- Radio Communications Project - Working on procurement document of radio communications system equipment for pump stations [Sue Hines & Doug Tirrell]
- Drawdown testing to calculate pump capability at LS A conducted, and the output flows not as poor as anticipated. One of the pumps is delivering about 75% flow, and the other pump is delivering 50%. The flow meter will need to be looked at and repositioned to give a more accurate flow indication.
- **Ongoing [noted last month]**: Influent FM pipes in sub-basement – an area of concern and being monitored. No change in status.
- Pending & possibly could be a 2022 project: GT1 sandblasting/painting – determined not feasible in 2021.
- Contacted Duperon Corp, supplier of the bar screen for a site visit. The visit is on their service calendar and will be scheduled when the company has another client service call in the area.
- New Sludge Transfer pump installation and piping proposals reviewed and Industrial Pump of Tiverton, RI awarded the work.
- Working on Thompson trash pumps – new control panels.
- On-going work with FRMahony for E-1 pump repairs and new pump replacements. Repair response had been slow, and new inventory very limited. Hull Sewer inventory of spare pumps very low.
- Based upon EESCO's IR study, a mid-September electrical shutdown is planned for the MCC and Switchgear maintenance and cleaning.
- Initiated a RFQ from several pump manufacturers – replacement portable 6-inch trash pump.
- Mersino Pump presented a proposal to modify the 12-inch bypass piping by the Primary D-Box, so that bypassed influent pumped flow can go to the D-Box before the screenings box, in addition to directly to the screenings box.

| Asset Management Accounts - Year 7 | | | | | | | |
|------------------------------------|---------------------------|---------------------|---------------------|---------------------|-------------------------------|---------------------|---------------------|
| | | 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 | \$81,787.14 | \$131,241.59 | \$41,200.00 | \$122,987.14 | \$90,041.59 |
| 07M-102B | Capital and Major Repairs | \$140,000.00 | \$84,839.96 | \$55,160.04 | \$113,400.00 | \$198,239.96 | (\$58,239.96) |
| 07M-103A | Major Sub Contractors | \$180,465.81 | \$123,211.76 | \$57,254.05 | \$95,000.00 | \$218,211.76 | (\$37,745.95) |
| blank | | | | | #REF! | | |
| | Asset Management | \$533,494.54 | \$289,838.86 | \$243,655.68 | #REF! | \$539,438.86 | (\$5,944.32) |

#REF!

| Budget expended | Time Status | |
|-----------------|-------------|------------|
| | NOW= | 11/22/2021 |
| | Start | 5/1/2020 |
| 38.4% | 156.3% | 117.9% |
| 60.6% | 156.3% | 95.7% |
| 68.3% | 156.3% | 88.0% |
| | | |
| 54.3% | 156.3% | 102.0% |

| | | | | | | | |
|-----|----------|------------|------------|------------|--------|------------|------------|
| 07S | D Street | \$7,500.00 | \$2,183.39 | \$5,316.61 | \$0.00 | \$2,183.39 | \$5,316.61 |
|-----|----------|------------|------------|------------|--------|------------|------------|

| | | |
|-------|--------|--------|
| 29.1% | 156.3% | 127.2% |
|-------|--------|--------|

| | | | | | | | |
|-----|------------------------|--------------|-------------|-------------|--------|-------------|-------------|
| 07C | Odor Control Chemicals | \$100,000.00 | \$81,192.00 | \$18,808.00 | \$0.00 | \$81,192.00 | \$18,808.00 |
|-----|------------------------|--------------|-------------|-------------|--------|-------------|-------------|

| | | |
|-------|--------|-------|
| 81.2% | 156.3% | 75.1% |
|-------|--------|-------|

For August 2021
M.O.R.

Estimated total
remaining 07M,
07C, 07S

\$18,180.29

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)

Maintenance Account - Year 7 - 05_01_21 to 04_30_22

FOR AUGUST 2021 MOR

#REF!

11/22/2021 13:02

| 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 | \$9,000.00 | | | Jody St. George, Paul Horgan & 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. |
| 1 | Pump and Motor Repairs [invoiced and pcard] | On Going | | 101A | \$6,000.00 | | | to keep existing equipment running - utilize various outside contractor repair shops, new purchases. orig budget \$20,000; adjust to 6000 11/22. |
| 1 | Lubricants | On Going | | 101A | \$1,500.00 | | | Various Suppliers for oil and grease. Budgeted \$3500. |
| 1 | Generator Repairs | On Going | | 101A | \$2,000.00 | | | General Repair Work - Original Placeholder \$3,000; pending invoice for water solenoid main gen oct 2020; Adj 11/22 to \$2000. |
| 1 | Fire Alarm Inspections and Service | On Going | | 101A | \$2,000.00 | | | Semi Annual - Hart Security (October & April, central station, & Service) Orig budget \$3000. |
| 2 | Universal waste disposal | Pending | | 101A | \$500.00 | | | Placeholder - \$500; zero the budget, will incur if needed |
| 1 | Service the Forklift | Pending | | 101A | \$400.00 | | | Placeholder \$400 - Annual cost - outside vendor |
| 1 | Overhead Hoist Inspection | Pending | | 101A | \$1,500.00 | | | Annual task - Applied Dynamics - PO is usually issued for April. \$1500 |
| 1 | Flow meter verification and calibration | Pending | | 101A | \$1,000.00 | | | Placeholder - Annual - Ray Ferland 1 visit annually [orig budget \$1,000 |
| 1 | Facility Building - Roof Inspection | Pending | | 101A | \$2,800.00 | | | \$2800 Annual Placeholder - Established contract with Tecta America |
| 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 | \$2,500.00 | | | Estimated annual expenditures - Orig budget \$4,000; |
| 1 | Manhole Inspections | Pending | | 101A | | | | As required, and/or scheduled |
| 2 | General mechanical and electrical items/supplies | On Going | | 101A | \$6,500.00 | | | Grainger, FWWebb, EJP, Hoadley, McMasterCarr, etc; orig budget \$18,000, adjust to \$9,000 on 10/20; adjust to 6500 on 11/22; |
| 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 | On Going | | 101A | \$4,500.00 | | | in process - started Oct 2021; Readjust budget to \$4,500 on 11/22. |
| 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. |

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)

Maintenance Account - Year 7 - 05_01_21 to 04_30_22

FOR AUGUST 2021 MOR

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11/22/2021 13:02

| Priority [1=high] | Description | Status | completed | Task | Estimates & funds remaining | Final Completed Cost | Lead | Comments |
|----------------------|---|-----------|-----------|------|--------------------------------|-------------------------|------|--|
| 2 | Misc. Materials | On Going | | 101A | \$1,000.00 | | | Hardware Store - \$200.00 per month - reoccurring expense; orig budget \$2,400; |
| 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 1 & 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 | \$5,000.00 | | | sub-contractor labor - pending; Have materials on hand |
| 1 | Pump Station #4 - purchase two new pumps | Completed | | 102B | | | | Cost: On a PO with MSI - # estim \$35,000 - by AEPump |
| 1 | Pump Station #4 - install new pumps | Completed | | 102B | \$10,000.00 | | | Most likely by D & C |
| 1 | Effluent Pump #3 - repairs | On Going | | 102B | \$25,000.00 | | | Currently the 60HP pump is at Flygt Repair shop - estimated repairs and new power cord - \$25,000 |
| 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 | Pending | | 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. |
| 2 | New 6" portable trash pump | On Going | | 102B | \$60,000.00 | | | Purchase from either Sourcewell or other -best estimate: |
| 1 | New Effluent Flygt Pump #4 | On Going | | 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 ? |
| 2 of 4 | AUMA spare electric actuator | Pending | | 102B | \$4,400.00 | | | one spae unit, for inventory - Quoted by A&N. PO requested. |

2020_05_01_07M_Checkbook_YTD draft

07M Planned Costs

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)

Maintenance Account - Year 7 - 05_01_21 to 04_30_22

FOR AUGUST 2021 MOR

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| Priority [1=high] | Description | Status | completed | Task | Estimates & funds remaining | Final Completed Cost | Lead | Comments |
|----------------------|---|-----------|-----------|------|--------------------------------|-------------------------|------|---|
| 1 | Grit classifier system parts | Pending | | 102B | \$9,000.00 | | | No spare parts - tail shaft housing, tail shaft, bushing, retainer plate, etc. Estimate from DGMarshall, and Envirodyne |
| 2 | Replacement Pumps LS A | Pending | | 102B | | | | Pump efficiency lower than desired - new pumps may be needed. Estimate ? |
| 1 | Electrical Work | On Going | | 103A | \$4,000.00 | | | 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. |
| 1 | SCADA Work | On Going | | 103A | \$12,500.00 | | | Steve Rose and the SCADA Support Team; orig budget \$25,000; |
| 1 | E-One Repairs and Replacement | On Going | | 103A | \$3,000.00 | | | 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 |
| 1 | Annual Generator Inspection | Pending | | 103A | \$5,000.00 | | | placeholder 2021 Annual \$4,900 - MSElectrical Power - Generator PM/Service work - due in November, Early Dec target completion. |
| 1 | Automatic Transfer Switch inspection and servicing | Pending | | 103A | \$2,400.00 | | | \$2400 - Annual Service planned for April Highland Power - NETS - Transfer Switch; Part of Gen Svc PO. |
| 1 | Wetwell Inspections and Cleaning - Plant/Pump Stations | On Going | | 103A | \$8,000.00 | | | As required, plant or pump stations; orig budget \$10,000 |
| 1 | Sewer Line Cleaning - Emergencies | On Going | | 103A | \$5,000.00 | | | 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 |
| 1 | Collection System and plant - emerg & unplanned calls - Jetting & CCTV work - various contractors | On Going | | 103A | \$10,000.00 | | | Budget - 15,000, adj down to 10K on 10/20; |
| 1 | Mersino 6" pump rental | On Going | | 103A | \$4,100.00 | | | approx 3k per month; adj budget down due to payments 11/22. |
| 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 06M - 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 |
| 1 | Low pressure sewer valve box insp & mtce | Pending | | 103A | | | | placeholder for contractor O&M inspections and potential repairs; Looking at Rosano-Davis or another contractor & W&C to investigate; budget of \$7,500 on hold |
| 1 | LS A pumps - Repairs to P2 by Industrial Pump | On Going | | 101A | | | | Placeholder - 4/12 - Evaluating cost for pump repair while replacement costs for parts or new pumps are looked at.. |
| 1 | PC #2 rake repairs - Lydon | On Going | | 103A | \$33,000.00 | | | Time and materials per proposal; (\$18,000) Revised estimate due to additional issues not seen with first inspection. Estimated additional \$\$ - \$15,000 |

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)

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|----------------------|--|----------|-----------|------|--------------------------------|-------------------------|------|--|
| 1 | PC2 remaining repairs - turnbuckles | Pending | | 103A | \$2,000.00 | | | Installation |
| 1 | Aeration Tank #1 mechanical assistance | Pending | | 103A | \$6,000.00 | | | hardware replacement and diffuser replacement - Late Nov, Early Dec. |
| 1 | Deragger PS3 for Pump #2 | On Going | | 102B | | | | Needs to be completed by MSI |
| TOTAL | | | | | \$249,600.00 | | | |



Maintenance History Report

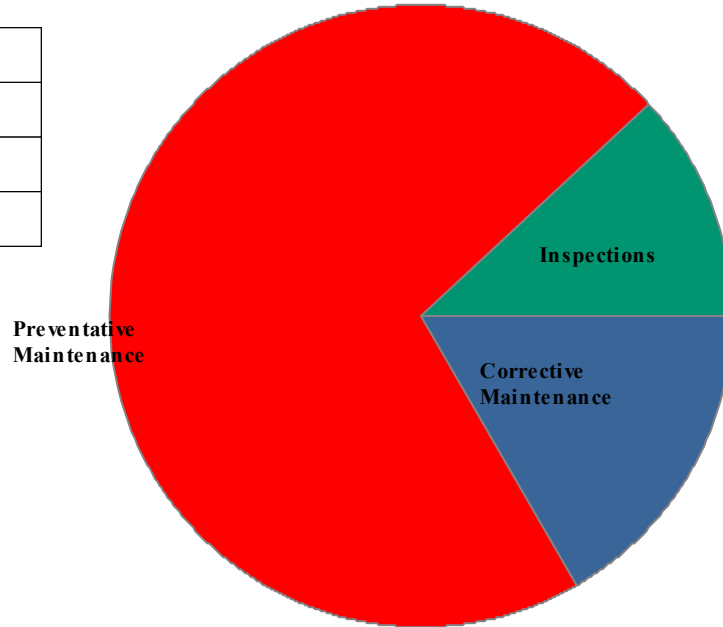
Hull Wastewater

Start Date: 8/1/2021

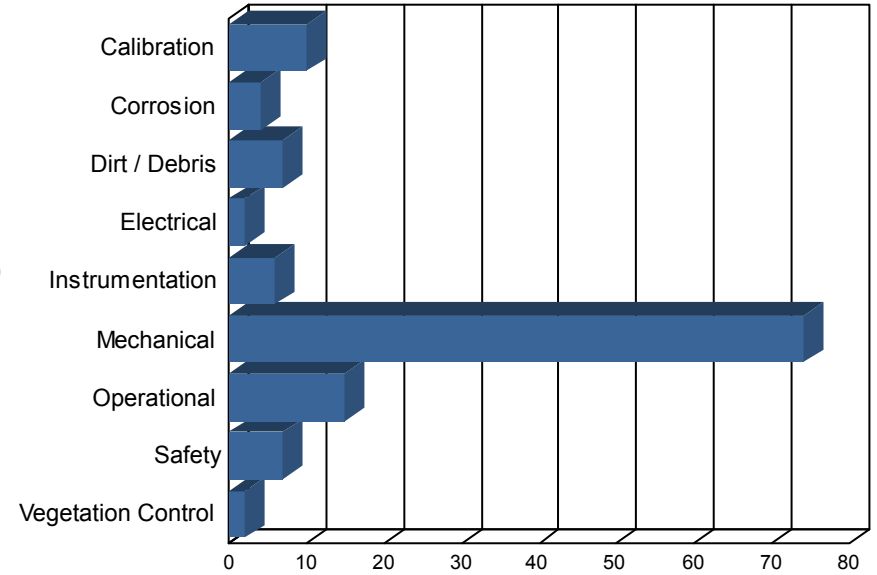
End Date: 8/31/2021

Work Order History By Type

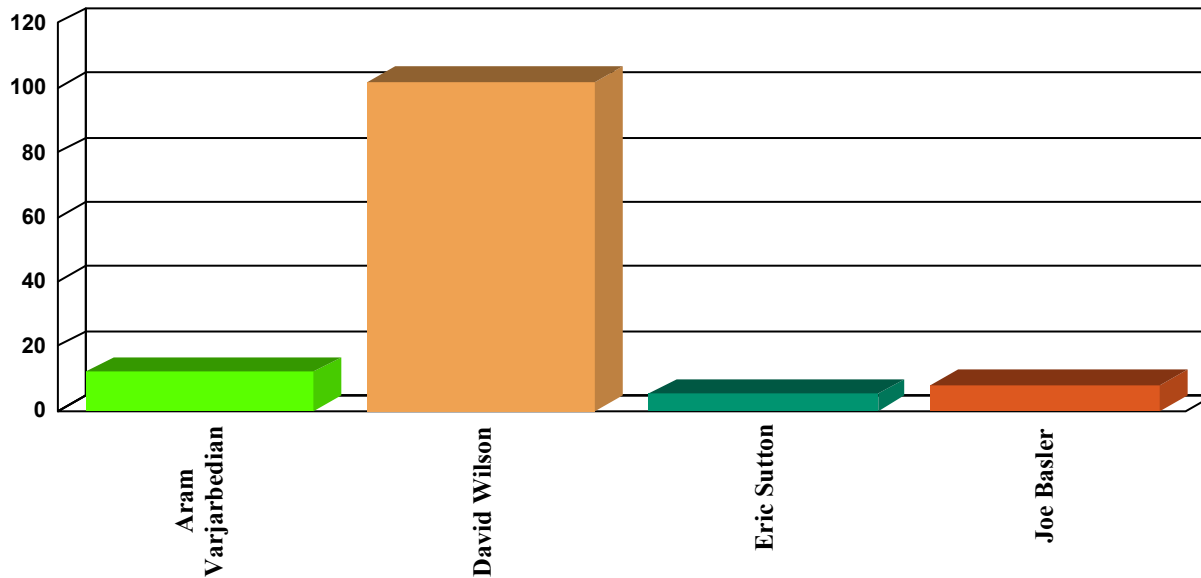
| | |
|--------------------------|------------|
| Corrective Maintenance | 21 |
| Inspections | 15 |
| Preventative Maintenance | 91 |
| Total Work Orders | 127 |



Work Order History by Reason



Work Order History By Employee



| Employee | WO Count | Labor Hours |
|-------------------|------------|-------------|
| Aram Varjarbedian | 12 | 29 |
| David Wilson | 102 | 27 |
| Eric Sutton | 5 | 3 |
| Joe Basler | 8 | 6 |
| Totals | 127 | 65 |

Corrective Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|---------------------------------|--|--|-------------------|---------------|------------|
| 8/4/21 | 14455 | Emergency Lighting & exit signs | Failed lights on emergency lighting unit. | Identified failed emergency lighting. | David Wilson | 8/4/21 | In Process |
| 8/4/21 | 14456 | Wet Scrubber System | Clean sight glass for recirculation pumps. | Shut down scrubber recirculation and caustic pumps. Removed flow meter for cleaning. Cleaned and installed. Returned to service. | David Wilson | 8/4/21 | Completed |
| 8/11/21 | 14457 | Fixed Gas Monitoring System | LEL sensor faulted | Verified fault. Red LED indicating fault. Read fault as Signal indeterminate. Troubleshoot with O&M manual. Performed manual reset and performed full calibration. Sensor would Zero but not span. Repeated flow chart and was able to calibrate sensor and verify the function. | David Wilson | 8/11/21 | Completed |
| 8/17/21 | 14463 | PS 4 Wet Well | clean wet well | with flow plugged off and station on contractor bypass, set up with Hoadley vac truck to clean out entire wet well for planned work. AV, DW, LB, ES. set up with Hoadley vac truck and clean wetwell. | Aram Varjarbedian | 8/17/21 | Completed |
| 8/17/21 | 14464 | PS A Wet Well | wet well needs cleaning | | David Wilson | 8/17/21 | Completed |
| 8/17/21 | 14465 | Primary Clarifiers | clean out scum well | with Hoadley vac truck, pump out and clean pri scum well, since process is off line. decant and dispose solids at landfill. DW, ES, LB | David Wilson | 8/17/21 | Completed |
| 8/17/21 | 14458 | Hypochlorite Pump 1 | high hypo use with low ratio | AV, MS check pump and found siphoning when pump was shut off. head assy last replaced 16 months ago. install new head, reset counter, check for leaks. | Aram Varjarbedian | 8/17/21 | Completed |
| 8/17/21 | 14459 | Aeration Tank 3 | air diffuser grid repairs | IPC LYDON, 2 TECHS, DAVE W, JOE B. CSE and permit. repairs day 1 approx 35 percent completed, new anchors and support hardware | Aram Varjarbedian | 8/17/21 | Completed |
| 8/18/21 | 14461 | PS 4 Pump 1 | clogged pump | with suction elbow off of pump, clear out pump debris, hardened rag buildup in between wear rings. A lot of internal wear. | Aram Varjarbedian | 8/18/21 | Completed |
| 8/18/21 | 14462 | PS 4 Pump 2 | clogged pump | AV, DW clean clogged pump, since suction elbow was removed from pump. Remove rags, and chunks of clay pipe jammed in impeller | Aram Varjarbedian | 8/18/21 | Completed |
| 8/18/21 | 14460 | Aeration Tank 3 | diffuser supports and anchors | Dw, Ms, and 2 Lydon - millwrights, continue diffuser support replacement and new floor anchor installation. tank now approx 70% completed. CSE into tank, and permit for the day. A lot of the floor anchor hardware had corroded. | Aram Varjarbedian | 8/18/21 | Completed |
| 8/25/21 | 14466 | PS 4 | yard weeds | JT, LB Weedwack area apply weedkiller. resident had called. | Aram Varjarbedian | 8/25/21 | Completed |
| 8/26/21 | 14468 | Aeration Tank 3 | Sanitaire diffuser system repair. | CSE ES as attendant DW and 2 millwrights from IPC Lydon as entrants. Replaced worn hardware and repaired broken pvc. | David Wilson | 8/27/21 | Completed |
| 8/27/21 | 14470 | PS 4 Building | Assist national grid for gas meter repair | Es jt on site removed bolts inside station to uncover protection for gas meter. Gas co did repair recovered protection | Eric Sutton | 8/27/21 | Completed |
| 8/27/21 | 14469 | PS 1 Building | Soft starter tripped during transfer loss of power | Es ph on site, reset soft start, due to power loss. | Eric Sutton | 8/26/21 | Completed |
| 8/27/21 | 14467 | Aeration Tank 3 | Sanitaire diffuser system repair. | CSE ES as attendant DW and 2 millwrights from IPC Lydon as entrants. Replaced worn hardware and repaired broken pvc. | David Wilson | 8/27/21 | Completed |

Corrective Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|-----------------------------|--|---|-------------------|---------------|-----------|
| 8/28/21 | 14471 | 34 - WW Secondary Treatment | Secondary clarifier complex. | Removed sump pump from pit in secondary water collection channel and cleared pump, reinstalled and pumped down secondary scum pit 1 | Joe Basler | 8/28/21 | Completed |
| 8/29/21 | 14472 | 23 - WW Pump Stations | PS 1, PS3 Yard area clean up | cut up old aluminum ladders for discard, and cut up large woody brush behind buildings for access and gas meter reading | Aram Varjarbedian | 8/29/21 | Completed |
| 8/31/21 | 14474 | PS 4 Pump 2 | Install new bleeder and pressure gauge | Isolated pump 1. Removed old threaded adapter, nipple and valve. Installed new adapters, nipples and pressure gauge. | David Wilson | 8/31/21 | Completed |
| 8/31/21 | 14475 | PS A Pump 1 | Replace failed guage | Isolated gauge and installed new replacement. 00-100psi | David Wilson | 8/31/21 | Completed |
| 8/31/21 | 14473 | PS 4 Pump 1 | Install bleeder and pressure guage. | Isolated pump 1. Removed old threaded adapter, nipple and valve. Installed new adapters, nipples and pressure gauge. | David Wilson | 8/31/21 | Completed |

Inspections

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|---------------------------------|--|---|-------------------|---------------|-----------|
| 8/4/21 | 13975 | Emergency Lighting & exit signs | Emergency Lighting Inspection - Monthly | Tested all emergency lighting. Found one failed. Corrective work order to follow. | David Wilson | 7/14/21 | Completed |
| 8/4/21 | 14099 | Fire Extinguishers | WWTF Fire Extinguisher Inspections - Monthly | Inspected all fire extinguishers. Unit outside of blower room on second floor needs to be replaced. | David Wilson | 8/2/21 | Completed |
| 8/4/21 | 13837 | Eyewash Stations | WWTF Eyewash Inspection - Weekly | | David Wilson | 7/25/21 | Completed |
| 8/7/21 | 14001 | Eyewash Stations | WWTF Eyewash Inspection - Weekly | Tested and inspected all high level alarms and floats. | Joe Basler | 8/1/21 | Completed |
| 8/9/21 | 14146 | Blower Room Exhaust Fan 1 | Monthly operational inspection | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14147 | Blower Room Exhaust Fan 2 | Monthly operational inspection | | David Wilson | 8/1/21 | Completed |
| 8/19/21 | 14064 | PS 9 | PS #9 Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14067 | PS A | PS #A Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14060 | PS 5 | PS #5 Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14063 | PS 6 | PS #6 Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14059 | PS 4 | PS #4 Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14055 | PS 1 | PS #1 Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14056 | PS 3 | PS #3 Inspection - Monthly | | David Wilson | 8/5/21 | Completed |
| 8/19/21 | 14123 | Truck 4 - 2015 Nissan Frontier | Monthly vehicle inspection on do-Forms | Recent July insp sticker. No issues, 128,000+ MILES INCL OIL CHG. | Aram Varjarbedian | 8/2/21 | Completed |
| 8/30/21 | 14003 | Eyewash Stations | WWTF Eyewash Inspection - Weekly | | David Wilson | 8/15/21 | Completed |

Preventative Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|------|------------|------------------|-------------------|----------|---------------|--------|
|-------------|------|------------|------------------|-------------------|----------|---------------|--------|

Preventative Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|-------------------------------------|--|---|-------------------|---------------|-----------|
| 8/4/21 | 13863 | Aeration Blower 2 | Aeration Blower #2 Air Filter Inspection - Monthly | Inspected air filter elements. Replaced with clean. | David Wilson | 7/22/21 | Completed |
| 8/4/21 | 13842 | Generator #2 - Backup Detroit 500 | Generator Weekly - Test Run no load | | David Wilson | 7/26/21 | Completed |
| 8/4/21 | 13846 | Generator #1- Emergency Kohler 750 | Generator Weekly - Test Run no load | | David Wilson | 7/26/21 | Completed |
| 8/4/21 | 13850 | Influent Sluice Isolation Gate | Weekly operate through full range | | David Wilson | 7/28/21 | Completed |
| 8/4/21 | 13950 | Generators "All Pump Station" | Generator Weekly - Test Run no load | | David Wilson | 7/26/21 | Completed |
| 8/4/21 | 14016 | Influent Sluice Isolation Gate | Weekly operate through full range | | David Wilson | 8/4/21 | Completed |
| 8/4/21 | 13862 | Aeration Blower 1 | Aeration Blower #1 Air Filter Inspection - monthly | | David Wilson | 7/27/21 | Completed |
| 8/5/21 | 13866 | Effluent Pumps | Effluent Pump - Monthly | All pumps operated during Aug 4th to Aug 5th high flow event. No issues | Aram Varjarbedian | 7/15/21 | Completed |
| 8/7/21 | 13942 | High level floats | Weekly High Float Alarm test | Tested and inspected all high level alarms. | Joe Basler | 7/25/21 | Completed |
| 8/9/21 | 13955 | All Plant Gear box reducers | GEAR BOX MAINT - WEEKLY | | David Wilson | 7/25/21 | Completed |
| 8/9/21 | 13925 | Ventis MX4 #2 - 4 Gas | 4 Gas Meter #2 Calibration - Monthly | | David Wilson | 7/29/21 | Completed |
| 8/9/21 | 13933 | GasAlert Max XTII #2 | monthly calibration | | David Wilson | 7/29/21 | Completed |
| 8/9/21 | 13926 | Ventis MX4 #3 - 4 Gas | 4 Gas Meter #3 Calibration - Monthly | | David Wilson | 7/29/21 | Completed |
| 8/9/21 | 13927 | Ventis MX4 #4 - 4 Gas | 4 Gas Meter #4 Calibration - Monthly | | David Wilson | 7/29/21 | Completed |
| 8/9/21 | 13928 | Ventis MX4 #5 - 4 Gas | 4 Gas Meter #5 Calibration - Monthly | | David Wilson | 7/29/21 | Completed |
| 8/9/21 | 13929 | Ventis MX4 #6 - 4 Gas | 4 Gas Meter #6 Calibration - Monthly | | David Wilson | 7/29/21 | Completed |
| 8/9/21 | 14100 | GasAlert Max XTII #1 | 4 gas meter calibration - monthly | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14139 | All Plant Gear box reducers | GEAR BOX MAINT - WEEKLY | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14124 | High level floats | Weekly High Float Alarm test | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14011 | Generator #1- Emergency Kohler 750 | Generator - Monthly Load Test | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14134 | Generators "All Pump Station" | Generator - Monthly Load Test | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14107 | PS Kohler Trailer Mounted Generator | Generator - Monthly Load Test | | David Wilson | 8/1/21 | Completed |
| 8/9/21 | 14089 | PS 9 Generator | PS #9 Generator Inspection and Test - Weekly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14088 | PS 9 Generator | PS #9 Generator Inspection and Load Test - Monthly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14093 | PS 6 Generator | PS #6 Generator Inspection and Test - Weekly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14083 | PS 5 Generator | PS #5 Generator Inspection and Test - Weekly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14097 | PS 6 Generator | PS #5 Generator Inspection and Load Test - Monthly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14079 | PS 4 Generator | PS #4 Generator Inspection and Test - Weekly | | David Wilson | 8/4/21 | Completed |

Preventative Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|--------------------------------------|--|--|--------------|---------------|-----------|
| 8/9/21 | 14087 | PS 5 Generator | PS #5 Generator Inspection and Load Test - Monthly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14073 | PS 3 Generator | PS #3 Generator Inspection and Test - Weekly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14078 | PS 4 Generator | PS #4 Generator Inspection and Load Test - Monthly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14069 | PS 1 Generator | PS #1 Generator Inspection and Test - Weekly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14077 | PS 3 Generator | PS #3 Generator Inspection and Load Test - Monthly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14030 | Secondary Clarifier 1 | Clean Launder Screens - Quarterly | | David Wilson | 8/2/21 | Completed |
| 8/9/21 | 14068 | PS 1 Generator | PS #1 Generator Inspection and Load Test - Monthly | | David Wilson | 8/4/21 | Completed |
| 8/9/21 | 14031 | Secondary Clarifier 2 | Clean Launder Screens - Quarterly | | David Wilson | 8/2/21 | Completed |
| 8/9/21 | 14132 | pH meter | Clean and Calibrate | | David Wilson | 8/1/21 | Completed |
| 8/11/21 | 14024 | Influent Pump 4 | Monthly Check Pump Couplings | | David Wilson | 8/4/21 | Completed |
| 8/11/21 | 14020 | Mechanical Screen & Washpress System | Monthly Maintenance | | David Wilson | 8/2/21 | Completed |
| 8/12/21 | 14054 | PS 1 | PUMP STATIONS - QUATERLY PM'S | Inspected hubs, couplings, pump seals, motor seals and valves. Exercised all valves. Greased all bearings. No unusual noises or vibrations. Ground water coming into dry well at mid level. Notified Pete Lyons. | David Wilson | 8/3/21 | Completed |
| 8/19/21 | 14071 | PS 1 Generator | PS #1 Generator Inspection and Test - Weekly | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14075 | PS 3 Generator | PS #3 Generator Inspection and Test - Weekly | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14081 | PS 4 Generator | PS #4 Generator Inspection and Test - Weekly | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14085 | PS 5 Generator | PS #5 Generator Inspection and Test - Weekly | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14091 | PS 9 Generator | PS #9 Generator Inspection and Test - Weekly | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14095 | PS 6 Generator | PS #6 Generator Inspection and Test - Weekly | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14008 | Generator #2 - Backup Detroit 500 | Generator Weekly - Test Run no load | | David Wilson | 8/16/21 | Completed |
| 8/19/21 | 14090 | PS 9 Generator | PS #9 Generator Inspection and Test - Weekly | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14084 | PS 5 Generator | PS #5 Generator Inspection and Test - Weekly | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14094 | PS 6 Generator | PS #6 Generator Inspection and Test - Weekly | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14074 | PS 3 Generator | PS #3 Generator Inspection and Test - Weekly | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14080 | PS 4 Generator | PS #4 Generator Inspection and Test - Weekly | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14070 | PS 1 Generator | PS #1 Generator Inspection and Test - Weekly | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14066 | PS A | PUMP STATIONS - QUATERLY PM'S | | David Wilson | 8/3/21 | Completed |

Preventative Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|-------------------------------------|--|--|-------------------|---------------|-----------|
| 8/19/21 | 14065 | PS 9 | PUMP STATIONS - QUATERLY PM'S | | David Wilson | 8/3/21 | Completed |
| 8/19/21 | 14062 | PS 6 | PUMP STATIONS - QUATERLY PM'S | | David Wilson | 8/3/21 | Completed |
| 8/19/21 | 14058 | PS 4 | PUMP STATIONS - QUATERLY PM'S | | David Wilson | 8/3/21 | Completed |
| 8/19/21 | 14061 | PS 5 | PUMP STATIONS - QUATERLY PM'S | | David Wilson | 8/3/21 | Completed |
| 8/19/21 | 14057 | PS 3 | PUMP STATIONS - QUATERLY PM'S | | David Wilson | 8/3/21 | Completed |
| 8/19/21 | 14135 | Generators "All Pump Station" | Generator - Annual PM | | Eric Sutton | 8/15/21 | Completed |
| 8/19/21 | 14136 | Generators "All Pump Station" | Generator Weekly - Test Run no load | | Eric Sutton | 8/16/21 | Completed |
| 8/19/21 | 14012 | Generator #1- Emergency Kohler 750 | Generator Weekly - Test Run no load | | David Wilson | 8/16/21 | Completed |
| 8/19/21 | 14104 | PS Kholer Trailer Mounted Generator | Generator Weekly - Test Run no load | | Eric Sutton | 8/16/21 | Completed |
| 8/19/21 | 14017 | Influent Sluice Isolation Gate | Weekly operate through full range | | David Wilson | 8/11/21 | Completed |
| 8/19/21 | 14018 | Influent Sluice Isolation Gate | Weekly operate through full range | | David Wilson | 8/18/21 | Completed |
| 8/19/21 | 14140 | All Plant Gear box reducers | GEAR BOX MAINT - WEEKLY | | David Wilson | 8/8/21 | Completed |
| 8/19/21 | 14141 | All Plant Gear box reducers | GEAR BOX MAINT - WEEKLY | | David Wilson | 8/15/21 | Completed |
| 8/19/21 | 14121 | Chlorine probe ATI | ATI, change membrane | AV,JB CHANGED MEMBRANE AND SOLUTION | Joe Basler | 8/1/21 | Completed |
| 8/19/21 | 14118 | Chlorine probe ATI | Weekly calibration | Cal against lab. | Joe Basler | 8/16/21 | Completed |
| 8/19/21 | 14117 | Chlorine probe ATI | Weekly calibration | Completed with Aug 19th service | Joe Basler | 8/2/21 | Completed |
| 8/19/21 | 14120 | Chlorine probe ATI | Change electrolyte | Changed when changing membrane | Joe Basler | 8/1/21 | Completed |
| 8/19/21 | 13935 | Chlorine probe ATI | Weekly calibration | Completed Aug 19th | Joe Basler | 7/19/21 | Completed |
| 8/19/21 | 14048 | Primary Sludge Pump 1 | Monthly Check Pump Couplings | New pump installed July 2021. Ran ok and minimally, since PC is off line | Aram Varjarbedian | 8/4/21 | Completed |
| 8/19/21 | 14049 | Primary Sludge Pump 2 | Monthly Check Pump Couplings | New pump installed Aug 2021 and new overload relay in panel by Hivoltage | Aram Varjarbedian | 8/4/21 | Completed |
| 8/19/21 | 14126 | High level floats | Weekly High Float Alarm test | | David Wilson | 8/15/21 | Completed |
| 8/24/21 | 14013 | Generator #1- Emergency Kohler 750 | Generator Weekly - Test Run no load | | David Wilson | 8/23/21 | Completed |
| 8/24/21 | 14009 | Generator #2 - Backup Detroit 500 | Generator Weekly - Test Run no load | | David Wilson | 8/23/21 | Completed |
| 8/24/21 | 14137 | Generators "All Pump Station" | Generator Weekly - Test Run no load | | David Wilson | 8/23/21 | Completed |
| 8/24/21 | 14105 | PS Kholer Trailer Mounted Generator | Generator Weekly - Test Run no load | | David Wilson | 8/23/21 | Completed |
| 8/26/21 | 14125 | High level floats | Weekly High Float Alarm test | | David Wilson | 8/8/21 | Completed |
| 8/27/21 | 14026 | Aeration Blower 1 | Aeration Blower #1 Air Filter Inspection - monthly | Inspected air filter. Replaced with a clean filter. Washed take off. | David Wilson | 8/24/21 | Completed |

Preventative Maintenance

| Status Date | WO # | Asset Name | Work Description | Work History Note | Employee | Schedule Date | Status |
|-------------|-------|--------------------------------|--|--|--------------|---------------|-----------|
| 8/27/21 | 14029 | Aeration Blower 2 | Aeration Blower #2 Air Filter Inspection - Monthly | Inspected air filter. Still clean. Blower offline. | David Wilson | 8/26/21 | Completed |
| 8/27/21 | 14032 | Aeration Tank 1 Oxygen Probe | AT #1 DO Probe Clean and Calibrate - Monthly | Cleaned and inspected LDO probe. Calibrated sensor. -0.3 offset. | David Wilson | 8/3/21 | Completed |
| 8/27/21 | 14033 | Aeration Tank 3 Oxygen Probe | AT #3 DO Probe Clean and Calibrate - Monthly | Cleaned and inspected LDO probe. Calibrated sensor. -.88 offset. | David Wilson | 8/3/21 | Completed |
| 8/30/21 | 14072 | PS 1 Generator | PS #1 Generator Inspection and Test - Weekly | | David Wilson | 8/25/21 | Completed |
| 8/30/21 | 14076 | PS 3 Generator | PS #3 Generator Inspection and Test - Weekly | | David Wilson | 8/25/21 | Completed |
| 8/30/21 | 14082 | PS 4 Generator | PS #4 Generator Inspection and Test - Weekly | | David Wilson | 8/25/21 | Completed |
| 8/30/21 | 14086 | PS 5 Generator | PS #5 Generator Inspection and Test - Weekly | | David Wilson | 8/25/21 | Completed |
| 8/30/21 | 14092 | PS 9 Generator | PS #9 Generator Inspection and Test - Weekly | | David Wilson | 8/25/21 | Completed |
| 8/30/21 | 14096 | PS 6 Generator | PS #6 Generator Inspection and Test - Weekly | | David Wilson | 8/25/21 | Completed |
| 8/30/21 | 14019 | Influent Sluice Isolation Gate | Weekly operate through full range | | David Wilson | 8/25/21 | Completed |

| Date | Asset ID | Asset Description | Asset Class | Name | Workflow Class |
|-----------------|-----------------|------------------------------|--------------------|--------------|---------------------------------|
| 8/19/2021 8:11 | 01-020 | 3 ARTHUR ST | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/10/2021 11:39 | 02-026-A | 1 CHANNEL ST | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/24/2021 10:17 | 09-094 | 12 PT ALLERTON AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/24/2021 10:00 | 09-095 | 8 PT ALLERTON AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/19/2021 13:08 | 10-013 | 39 PT ALLERTON AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/19/2021 13:07 | 10-017 | 29 PT ALLERTON AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/19/2021 10:33 | 10-023 | 0 PT ALLERTON AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/9/2021 10:06 | 11 N Truro St | 11 N Truro St Grinder Pump | Hull Grinder Pumps | Sutton, Eric | Hull - Grinder Pump Maintenance |
| 8/5/2021 11:49 | 13-045 | 4 T STREET | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/5/2021 11:45 | 13-045 | 4 T STREET | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/9/2021 12:24 | 13-133 | 303 BEACH AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/12/2021 14:00 | 15 Logan Ave | 15 Logan Ave Grinder Pump | Hull Grinder Pumps | Sutton, Eric | Hull - Grinder Pump Maintenance |
| 8/19/2021 9:42 | 15-104 | 259 BEACH AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/23/2021 12:47 | 23-005 | 547 NANTASKET AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/10/2021 12:05 | 23-038 | 125 KENBERMA ST | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/4/2021 13:28 | 25-079 | 43 BEACH AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/30/2021 10:37 | 26 Rockview Rd | 26 Rockview Rd Grinder Pump | Hull Grinder Pumps | Sutton, Eric | Hull - Grinder Pump Maintenance |
| 8/5/2021 11:48 | 27-137 | 11 WHITEHEAD AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/5/2021 8:15 | 33-042 | 297 NANTASKET AVE | Hull Parcels | Sutton, Eric | Hull - Sewer Backup |
| 8/5/2021 10:06 | 33-042 | 297 NANTASKET AVE | Hull Parcels | Sutton, Eric | Hull - Sewer Backup |
| 8/4/2021 13:35 | 33-128 | 39 MERRILL RD | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/27/2021 13:31 | 35-070 | 26 ROOSEVELT AVE | Hull Parcels | Sutton, Eric | Hull - Sewer Backup |
| 8/2/2021 10:45 | 36-060 | 61 BAY STREET | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/4/2021 14:14 | 45-168 | 56 NORTH TRURO ST | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/6/2021 14:30 | 49 Rockaway Ave | 49 Rockaway Ave Grinder Pump | Hull Grinder Pumps | Sutton, Eric | Hull - Grinder Pump Maintenance |
| 8/23/2021 12:45 | 51-041 | 23 STONY BEACH RD | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/2/2021 11:13 | 53-033 | 124 ATLANTIC AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/6/2021 14:09 | 54-029 | 16 DRIFTWAY | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/4/2021 12:55 | 56-001 | 1 HARBOR VIEW RD | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/4/2021 13:02 | 56-037 | 1153 NANTASKET AVE | Hull Parcels | Sutton, Eric | Hull - Markout |
| 8/19/2021 13:12 | MH-20236 | SEMS_Asset | Sanitary Manhole | Sutton, Eric | MH Frame & Cover Inspection |
| 8/19/2021 13:16 | MH-20390 | SEMS_Asset | Sanitary Manhole | Sutton, Eric | MH Frame & Cover Inspection |
| 8/9/2021 12:19 | MH-20490 | SEMS_Asset | Sanitary Manhole | Sutton, Eric | MH Frame & Cover Inspection |
| 8/5/2021 8:41 | MH-20818 | SEMS_Asset | Sanitary Manhole | Sutton, Eric | Hull - Sewer Backup |
| 8/5/2021 9:53 | MH-20818 | SEMS_Asset | Sanitary Manhole | Sutton, Eric | Hull - Markout |