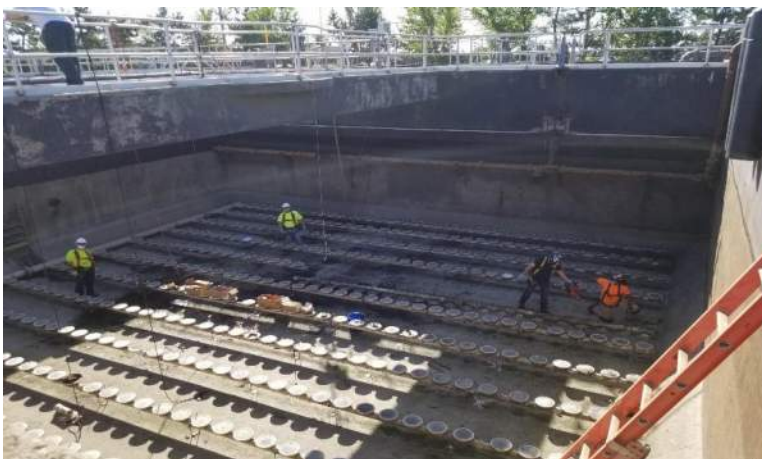




HULL WATER POLLUTION CONTROL FACILITY

July 2020

MONTHLY OPERATING REPORT



NPDES NO. MA0101231

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

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Cover pictures:

[top] Hull WPCF view from roof overlooking the secondary clarifiers

[bottom] Aeration Tank #1 – repairs to air diffuser piping

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 July 2020.

- No lost-time incidents for the month of July.
- Covid-19 Safety planning and operations: Regular daily operations and staff scheduling. Contractor/Vendor/Visitor form. Following Town, State and Company mandated safety protocols due to the Covid-19 Emergency. On-going procurement of necessary safety supplies, signage, procedures related to Covid-19.
- There were 154 effluent samples taken in the month of July. [details on page (12).] All effluent samples compliant. The average daily flow for the month was 1.002 MGD. A total of 1.54 inches of rainfall was recorded. There were no significant rain events that occurred during the month.
- The diffused aeration system grid piping in aeration tank #1 that broke apart in June, was repaired and the aeration tank was returned to service on 7/27. Process conditions were fair. Additional chlorine contact tank cleanings performed.
- There was one Sanitary System Overflow Report [SSO] submitted in July.
- The plant and collection system odors were low. The Bioxide system was in full operation in July and adjustments being made as needed for Bioxide addition. There were 2 odor complaints related to plant odors, because of floating sludge in the secondary clarifier.
- The 06M Asset Management Accounts checkbook summary and planned expenses updated for contract year #6 are attached.
- There were 4 grinder pump call outs during the month of July with pump replacements.
- Many street mark outs and manhole frames/covers checked ahead of the roadway paving project completed.
- W&C O&M continued to support many of the Engineering projects including: SSES yard piping test pit construction support and actual onsite inspection/excavation, and punch list items around the plant related to the Interceptor lining work for the headworks effluent pipe, coordination with engineering and GMPS.
- There was ongoing work on the Artificial Intelligence project, as well as the associated data management, cyber security upgrades, and daily rounds improvements with the “DMZ” computer capabilities.

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

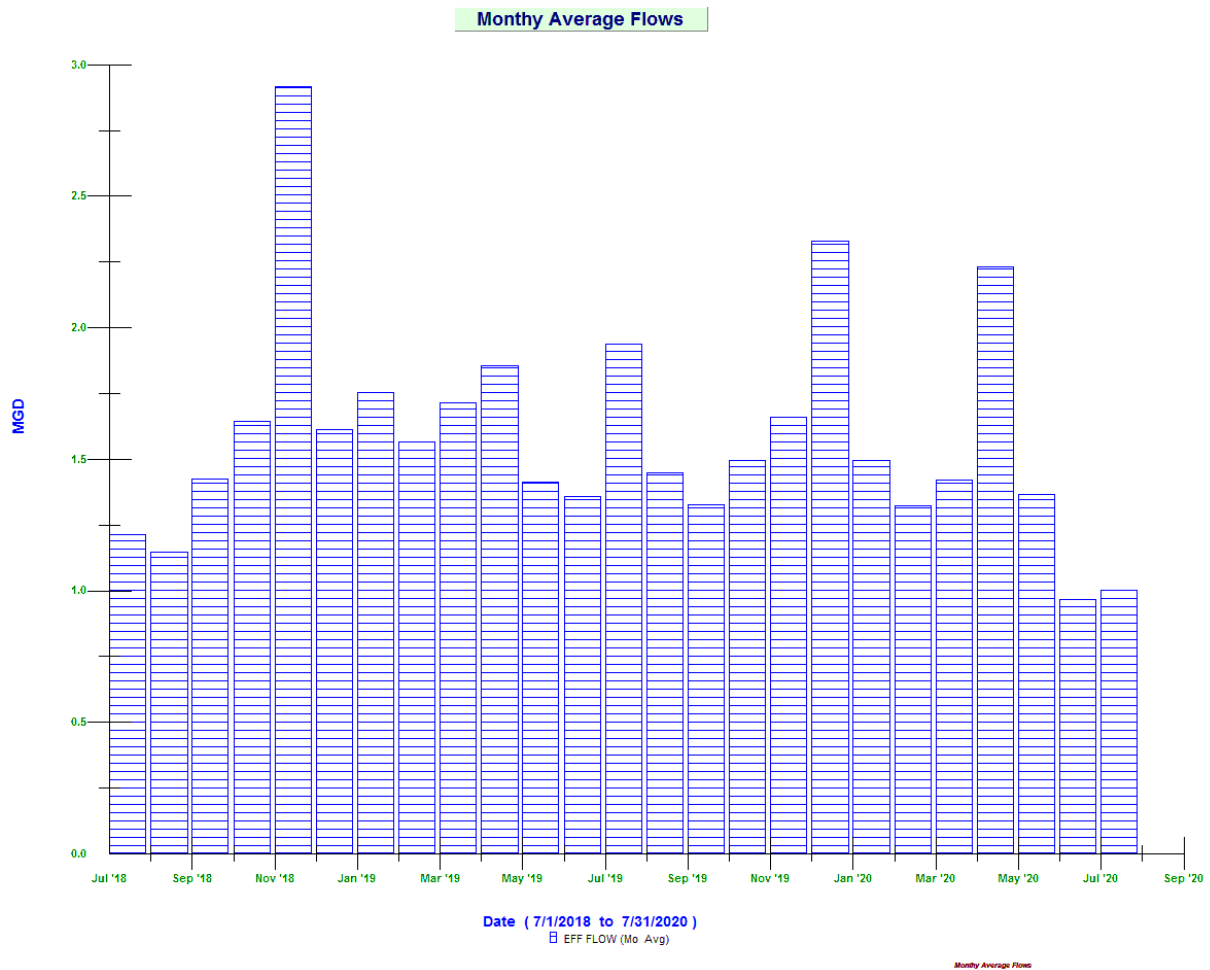


Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
July 2018	1.213	1.877*	1679	1918	82	165
July 2019	1.937	2.044*	4374	9130	67	215
July 2020	1.002	1.121*	1846	2258	81	185

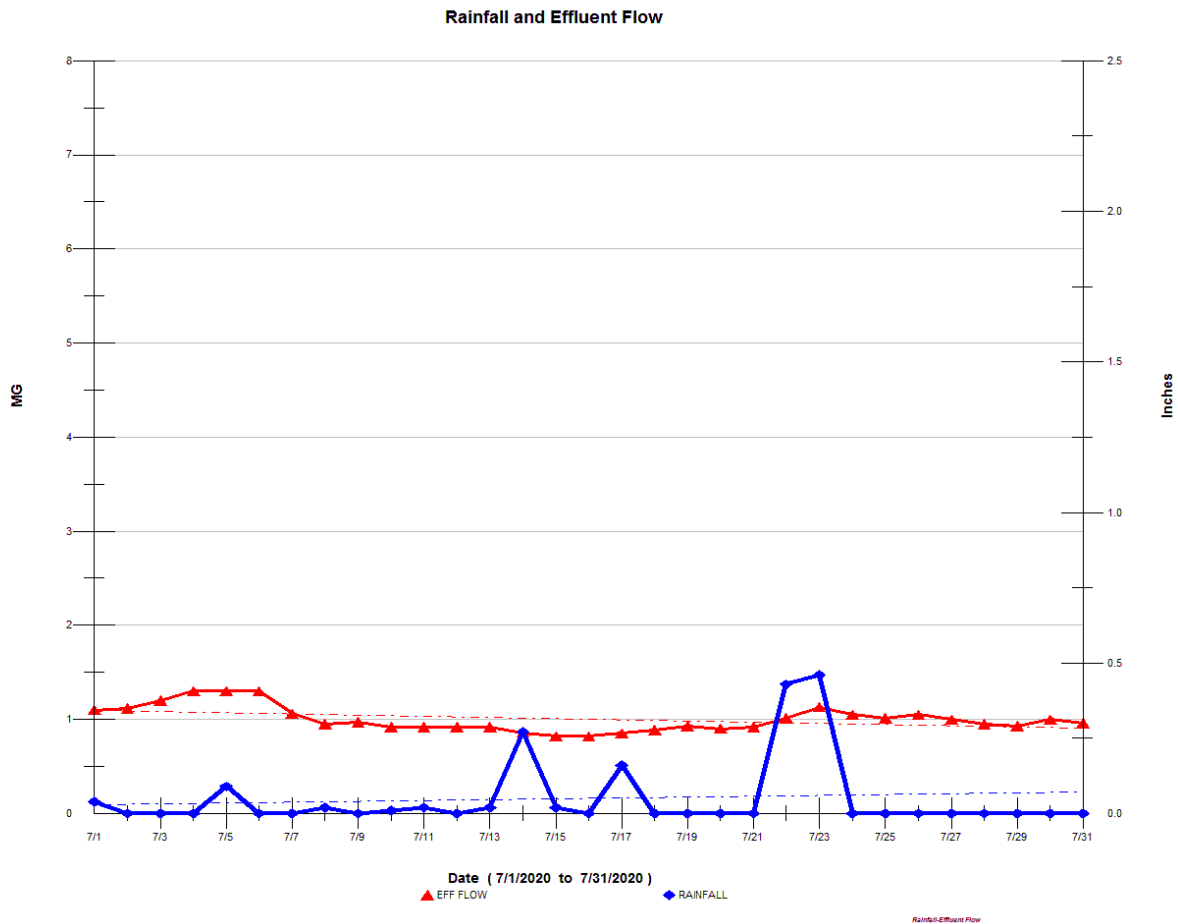
* The influent flow meters are strap on doppler flow meters, and the internal pipe condition prevents getting a strong signal. The staff utilizes the area velocity meter in the aeration tank inlet channel as well as the headworks influent Parshall Flume meter. All reported loadings are based on the effluent flow meter. All meters are tied into the Scada system so that influent flows can be monitored. Flows in 2020 are lower due to improvements in the collection system to reduce inflow and infiltration. The influent loadings for 2019 are higher and were affected by the GMPS interceptor cleaning by GMPS.

2.1 AVERAGE EFFLUENT MONTHLY FLOWS – TWO YEAR COMPARISON

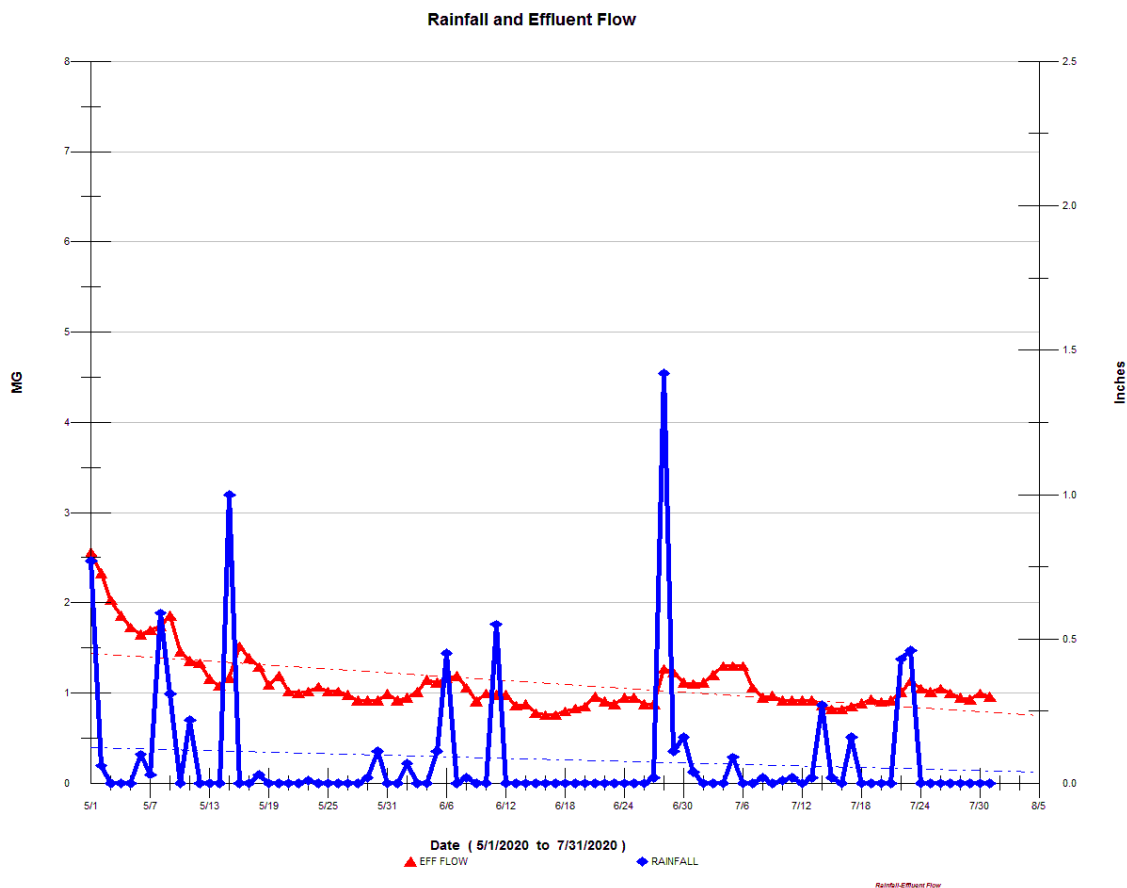


The monthly average flow for July was 1.002 MGD, almost the same as June. Increased summertime activity in the Town. The total precipitation for the month was 1.57 inches. The graph shows the 2-year summary of the monthly average flows.

2.2 MONTHLY SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



This graph typically shows the days where plant flows were higher due to rainfall [Blue Peaks]. Like June, this graph indicates that there were very few wet days in July and any rainfall had little/no impact on plant flows. As noted in recent months, the collection system work to reduce inflow and infiltration [I&I] out in the collection system has had very positive results and lowered daily plant flows.



This graph shows the last 3 months: May, June, and July and the very minor impacts of rainfall/precipitation on plant flows. The last 3 months were very dry months.

3 COMPLIANCE



➤ Plant Effluent

There were no permit exceedances in the month of July.

- Plant process conditions were difficult during the month of July. With the transfer of the aeration system to the mechanical aeration tanks, efforts were made to recover the process to the level where things were before the diffused aeration system failure. There were challenges to supply enough oxygen to the process tanks and balance the flows to each of the aeration tanks. The process efficiency was not optimal, as the mechanical aerators would surge a lot, causing uneven waves in the tank and poor oxygen transfer. Also, various undesirable filamentous bacteria became predominant in the system which led to odorous floating sludge on the surface of the secondary clarifier. Chlorination of the return sludge was initiated to combat the problem, with some success, however, the biological growth and aging of the system bacteria was hindered. The Drylet dose was doubled for approximately 3 weeks to add bacteria to the system. Two sets of samples were sent out for microbiological examination in July to provide additional information on the system operation. The process control plan was in the process of trying to raise the system's sludge age and implementing some of the control strategies recommended by the outside lab's analysis. The pictures below show the undesirable sludge and conditions that plagued the facility for much of July. The regional contact person from the MADEP was informed of the plant status and issues.



Floating sludge on clarifier surface



Mechanical aerator – insufficient mixing



Settleometer results in lab

Attached is an excerpt from the analytical report from the lab where samples were sent to.

At the time of the sample the dispersed growth, septicity, and denitrification appear to be the most significant findings. For denitrification to occur three factors must be present 1) presence of nitrate 2) anoxic conditions 3) a carbon source. It is suspected that the oxygen uptake rate and available carbon (either soluble or stored as PHB within many of the filaments) is serving as a carbon source. Often in these instances increasing the sludge age/ mixed liquor concentration and/or lowering the F/M ratio at the front end of the aeration basin (decreasing organic acid/volatile acid concentrations/ not always possible) are recommended control strategies. Note that Microthrix is currently very common in abundance. If the mixed liquor or sludge age is increased this has the potential to encourage Microthrix growth so if these steps are taken RAS chlorination may be needed to control Microthrix.

The flocs were relatively firm and irregular in shape ranging from 100-850 μm in dimension (average of 350 μm). Dispersed single cell bacteria and dispersed Spirilla and Flexibacter were ranked very common in the bulk liquid between the flocs. Dispersed filamentous bacteria were ranked common in abundance. Flagellates (predominant), stalked ciliates (several types), testate amoebae, and free-swimming ciliates were observed. Filamentous bacteria were ranked very common- abundant with moderate impact on the overall floc structure (some filaments extending from the flocs). Of filaments viewed >95% were healthy. Zoogloea bacteria were common in abundance and low amounts of tetrads were present. Polysaccharide was judged normal upon staining indicating adequate nutrients available for the bacteria. Nitrosomonas and Nitrobacter were viewed in occasional flocs. Based on the findings the foam appears to be related to denitrification and high abundance of Microthrix. The diagnosis of denitrification is supported by quick rise time in the thirty-minute settleability test as well as significantly larger average floc size within the foam than the underlying mixed liquor (nitrogen gas entrapment).

Morphotype/ Indicator	Rank	Abundance
Dispersed single cell bacteria	1	Very Common
Flexibacter and Spirilla	1	Very Common
Microthrix	1	Very Common
Thiothrix	1	Very Common
Zoogloea	2	Common
Nostocoida limicola (I and II)	2	Common
Haliscomenobacter	3	Some
Type 0411	3	Some
Type 0092	4	Few

- A Copy of the NPDES report for July 2020 was submitted to the EPA & DEP and then forwarded to the Hull Sewer Dept.

- There was an SSO reported for 7/13/20 due to an overflow of sewage from the primary distribution box, because of a malfunction of the influent channel screen. The channel screen did not start up as it was supposed to, and when the unit restarted, a surge of flow into the facility resulted, causing all of the influent pumps to start up, which overwhelmed the D-box structure. An immediate response by the plant staff kept the overflow gallons to a minimum [less than 200 gallons], and the area was cleaned up with a vacuum truck that was called in. The incident was investigated with no specific findings, but additional alarms and safeguarding controls were added to the process. Left picture shows area of spilled sewage [highlighted]; Right picture shows a closer view of the affected area around the D-box.

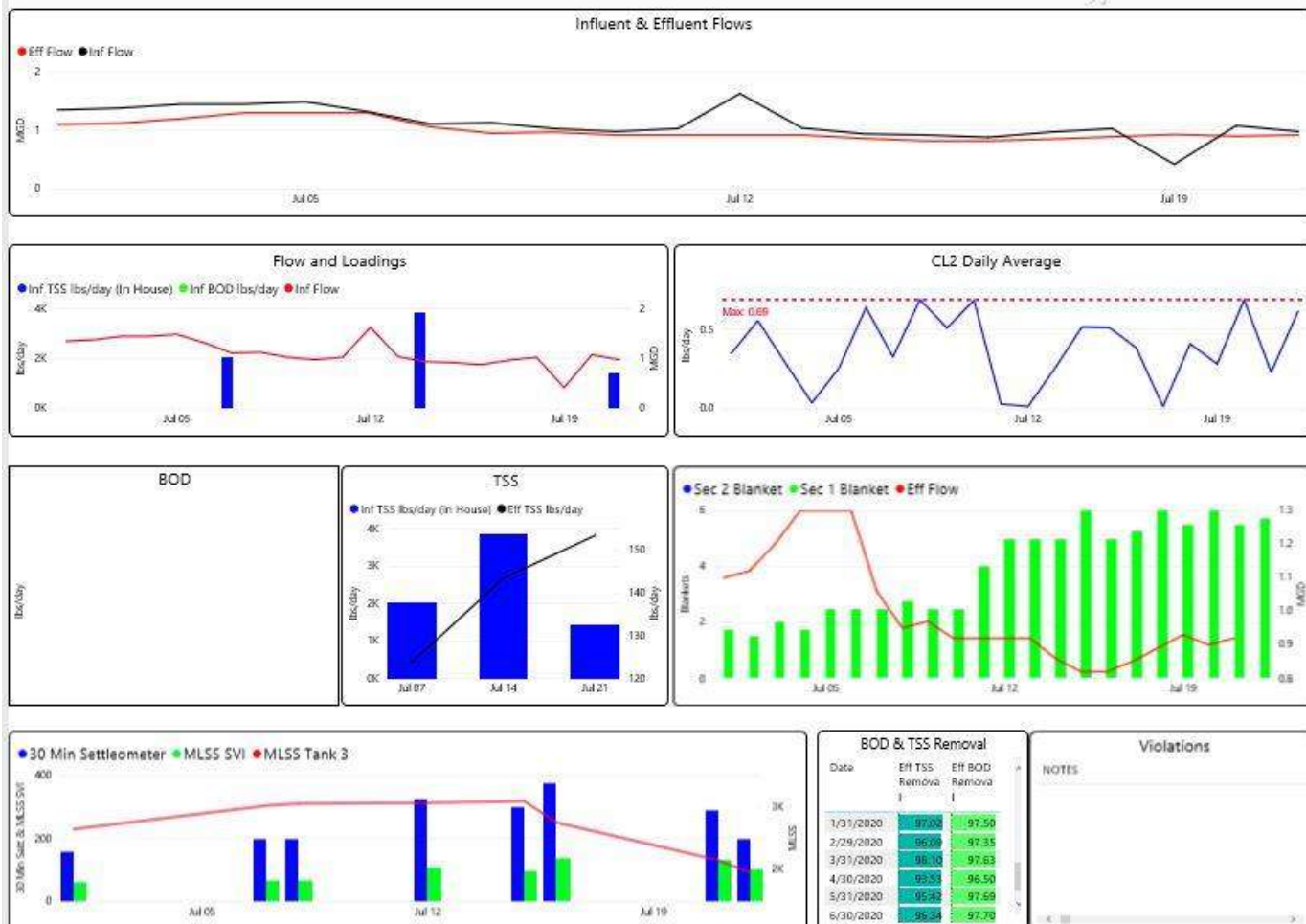




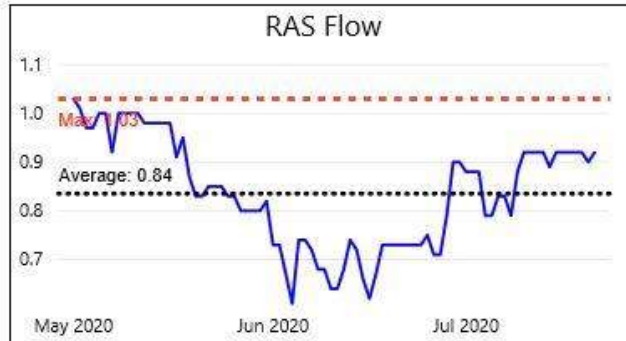
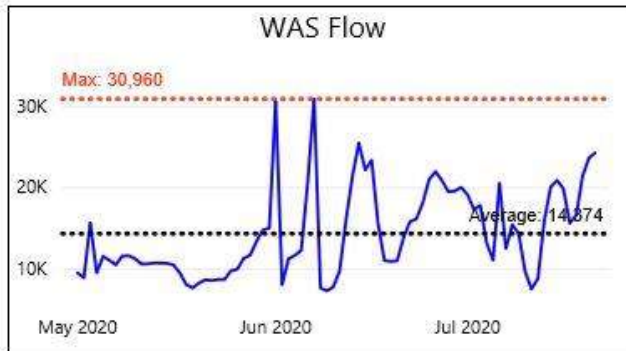
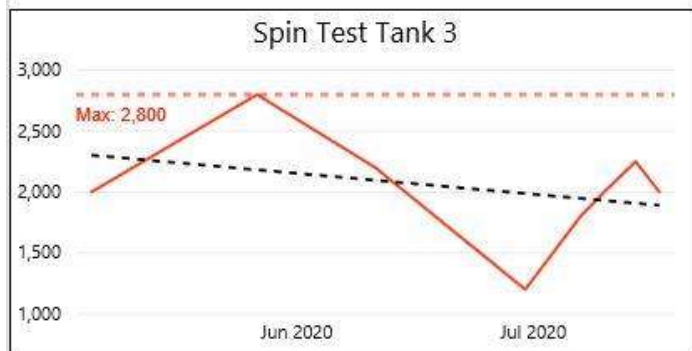
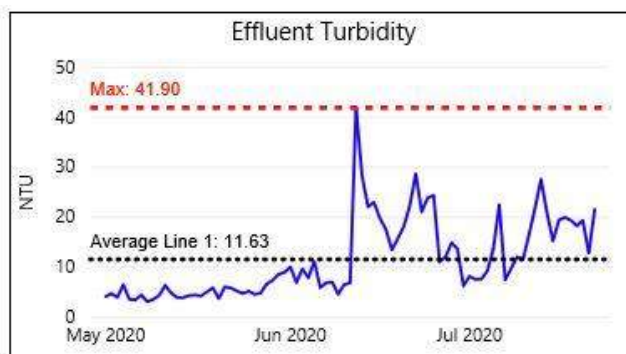
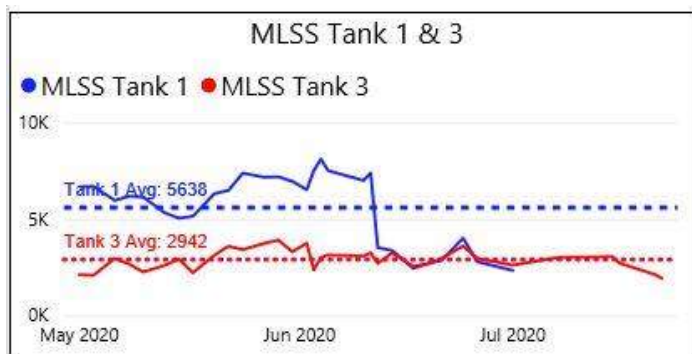
Hull Wastewater Treatment Facility

7/1/2020

7/31/2020



Monthly Process Summary graphs from power BI – July 2020.



Graphs shows trending of secondary processes using Power BI for 3-month period ending on 6/30/20. The tank solids levels under aeration did drop towards the end of June when the 3rd aeration tank was put online. Effluent turbidity was on the rise in mid-June and stayed high in July.

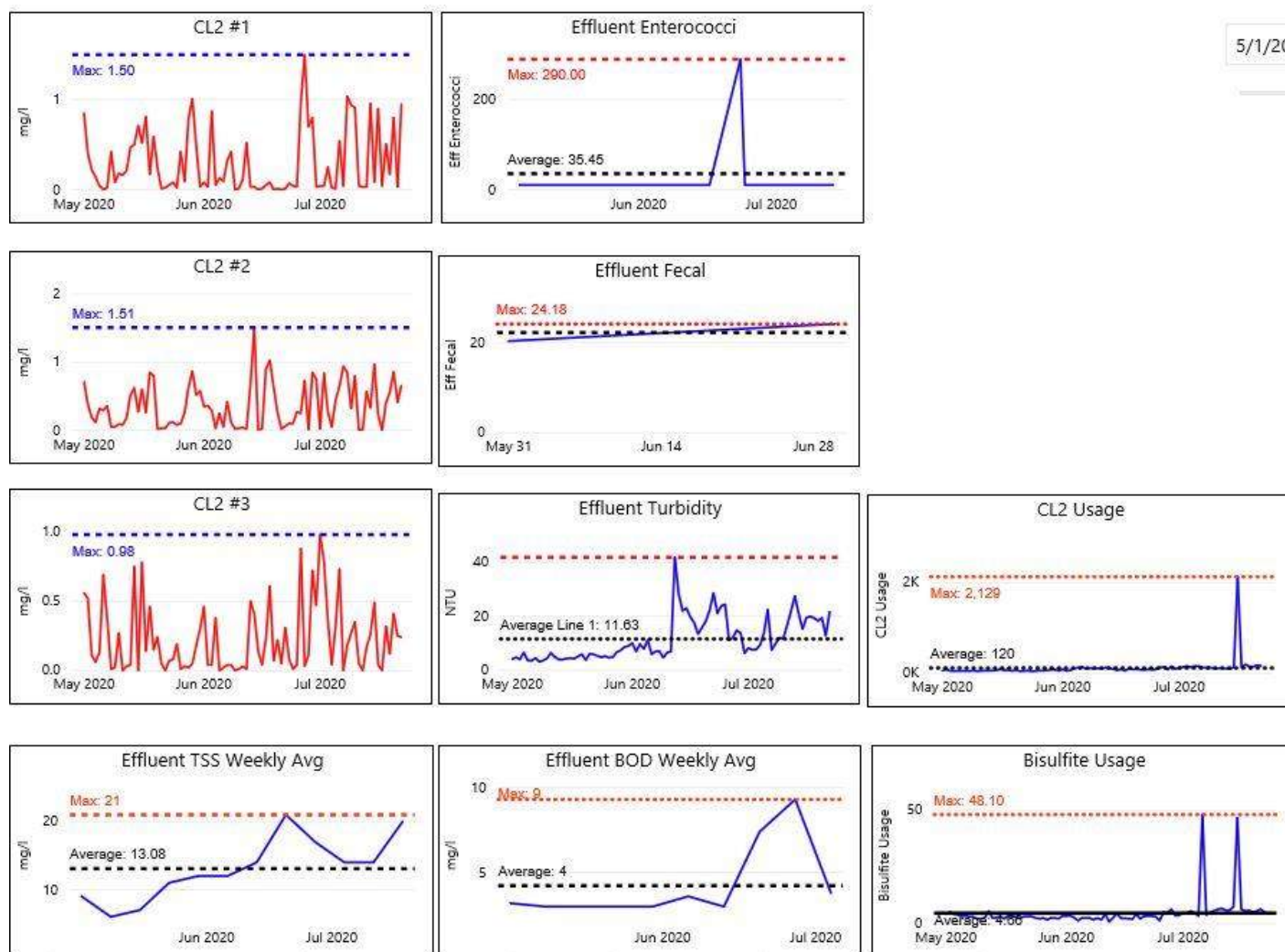
4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY – JULY 2020

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	23.6	14.0	45	5	0
Eff TSS	LBS			1152	768	1 X Week	184.9	123.8	356.5		0
% TSS Rem	%		85			1 X Month	91.9				0
Eff BOD	MG/L	50		45	30	1 X Week	10.5	4.2	20.0	5	0
Eff BOD	LBS			1152	768	1 X Week	81.0	37.1	158.5		0
% BOD Rem	%		85			1 X Month	95.6				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.32	0.01	0.92	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	7.2	7.0	7.3	31	0
Enterococci	CFU/100 ML	276			35	1 X Week	14	10	50	5	0

There were **154** effluent samples taken in the month of July.

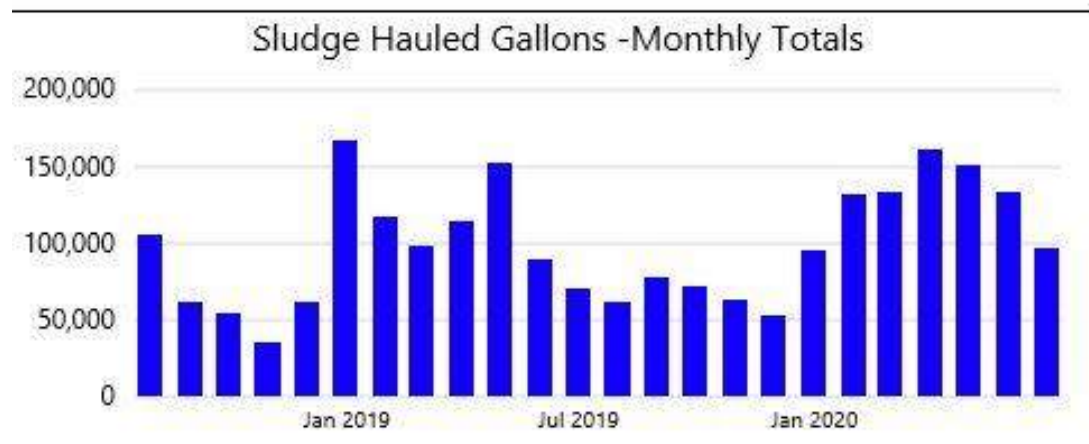


Power BI graphs showing effluent compliance for the last 3 months, chlorine residuals, effluent compliance, & chemical use. Bleach [sodium hypochlorite] use increased significantly because of the process issues.

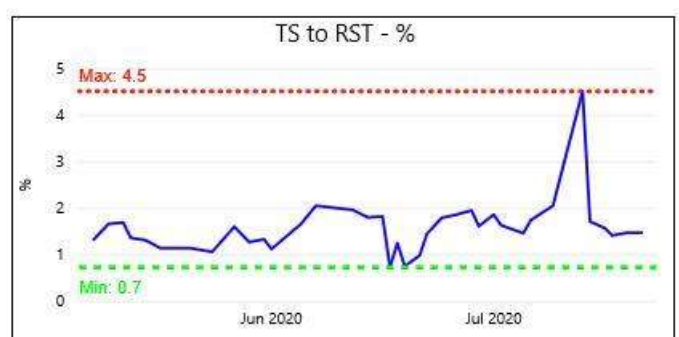
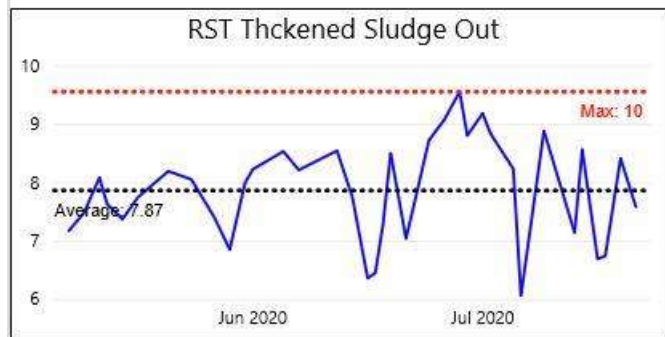
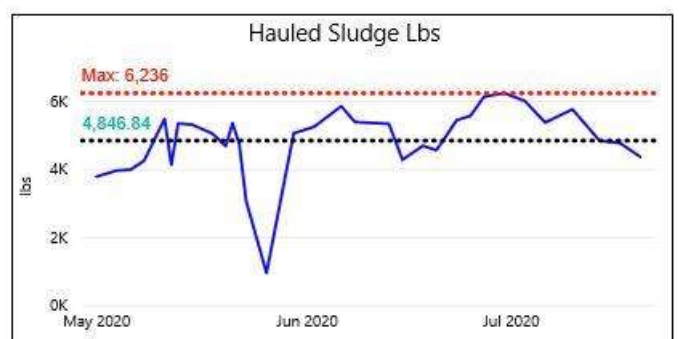
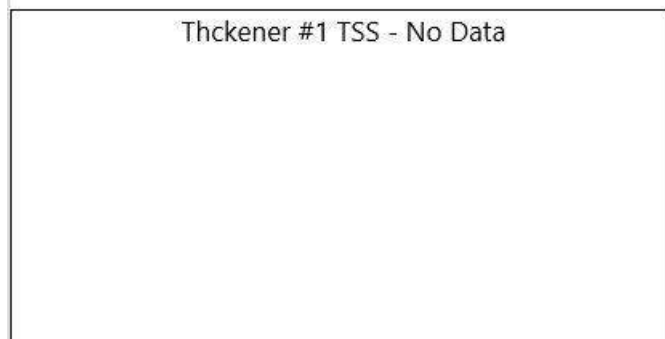
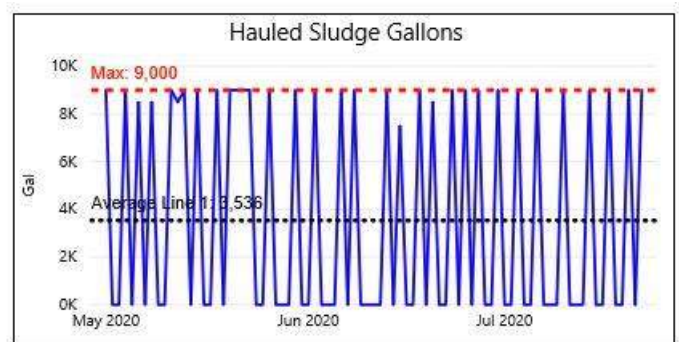
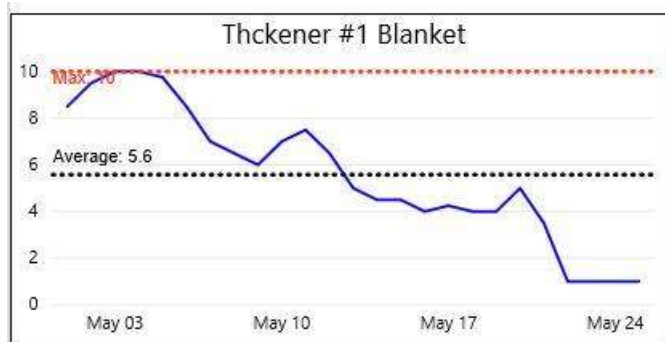
Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
July 2018	37.60	105,500
July 2019	60.05	62,500
July 2020	31.06	71,500

Power BI graphs for sludge solids & gallons hauled for past three years



Additional Power BI graphs for sludge solids for May, June, July.



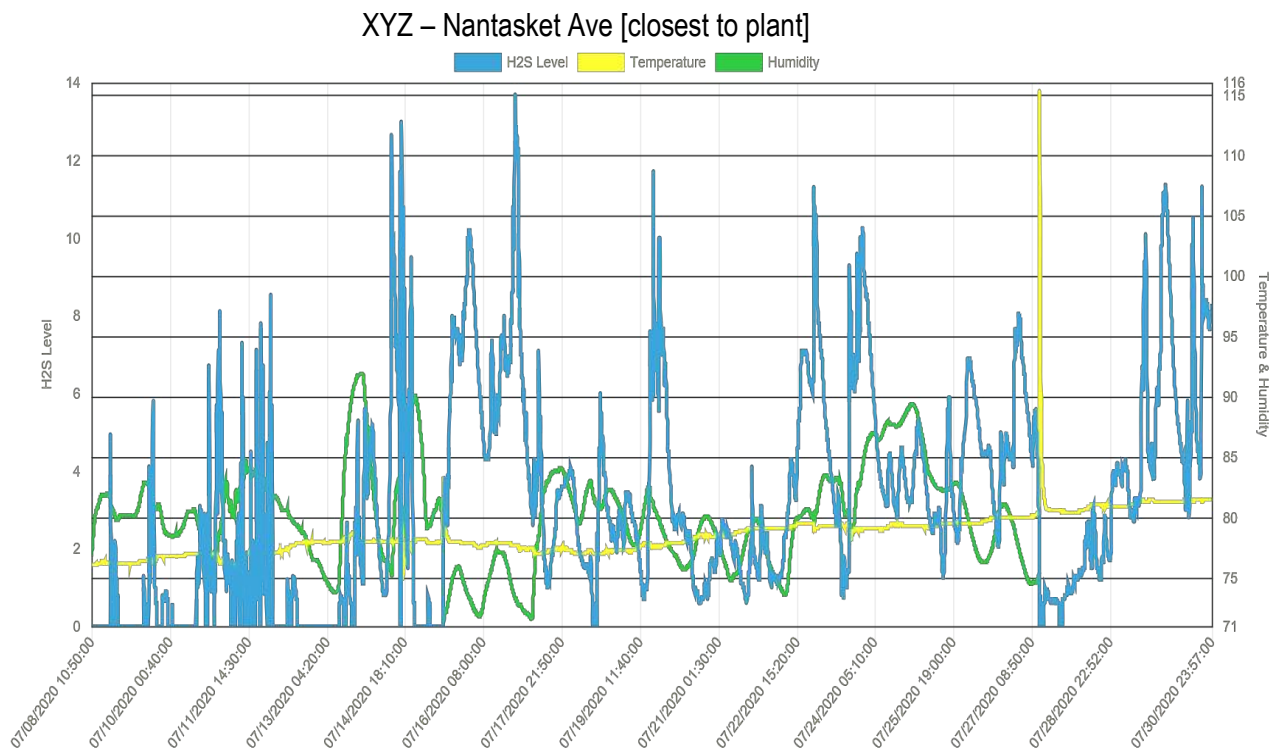
5 ODOR CONTROL

There were two odor complaint calls during the month of July [messages left over the weekend of 7/25-26]. An odor warning note distributed on 7/31 advising the neighbors of the on-going process issues, and source of the odors. The floating sludge on the surface of the secondary clarifier had become very difficult to manage. Additional spray hoses were set up to break up the sludge mat and keep odors to a minimum. The gravity thickener and primary clarifier were offline. No changes to other plant operations. A vactor truck was called in to skim off the surfaces of the effluent wet wells and the center ring of the secondary clarifier on 7/30. Also, added some ferric chloride to one of the mechanically aerated sludge tanks to see if odors could be reduced.

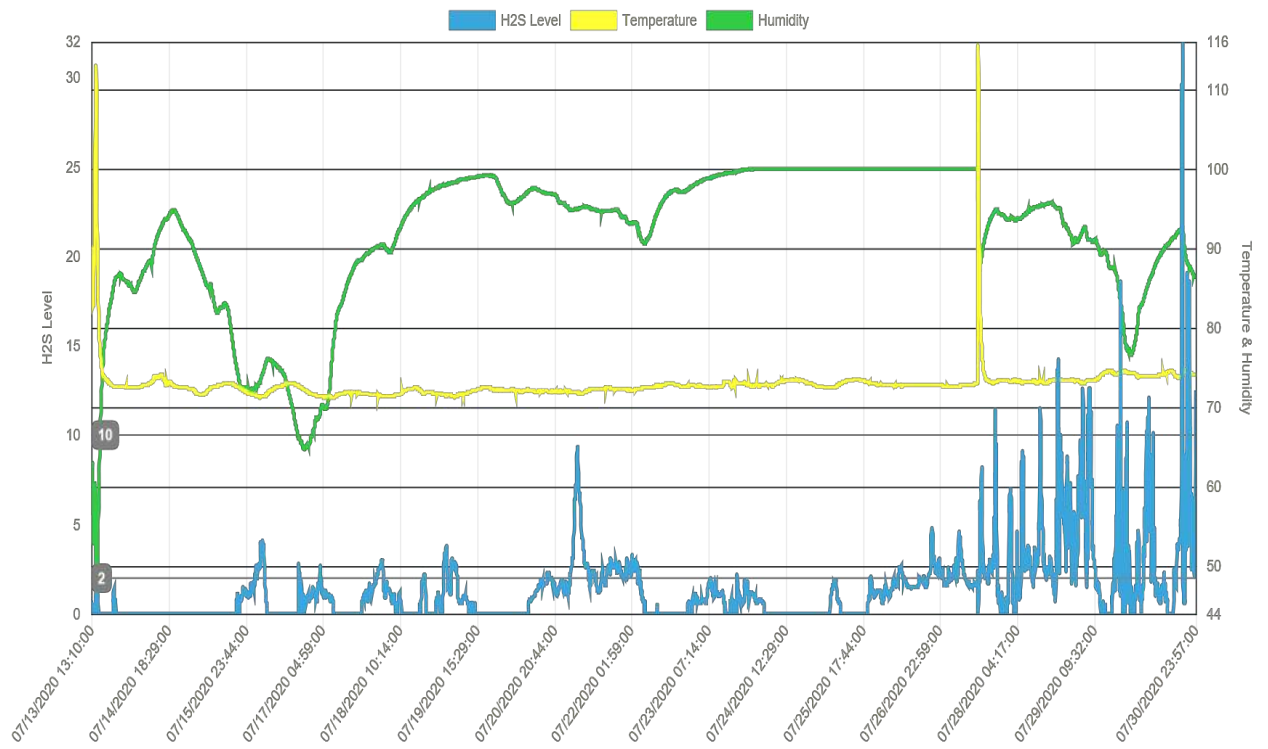
The Evoqua system controls were in place and on-line for remote monitoring of the odor logger at XYZ/Nantasket Ave & Nantasket Ave/Water Street [set up on 7/13] and for the chemical feed system adjustments. Continuing to work on controls and system dynamics to fine tune chemical feed addition. The chemical feed pump capacity was upsized by Evoqua in July. The biggest impact seen by the higher H₂S levels was the increase in sewage temperatures, coupled with the very low flows, which created septic conditions and sulfide generation.

- “In-Pipe” bacteria addition continued with all 24 Microbe Dosing Stations [MDU] operational. The full monthly bacteria unit replacements were completed on 7/21/20. The bi-weekly change outs of the bacteria bottles at three lift stations in the wet wells or manhole just prior to the station. [PS 3, PS 5, PS 9] completed in early August.
- Mixing systems/aerators all functional at the pump stations, except for pump station #3.
- Hydrogen sulfide monitoring units [H₂S] are recording and being trended on the odor scrubber for monitoring inlet and outlet H₂S levels. Weekly neighborhood monitoring done with portable Jerome meter.

[pictured below: trending graphs for H₂S levels recorded from the vapor link system cellular at manhole at XYZ Street/Nantasket Ave and Nantasket Ave/Water Street. Trend shows higher hydrogen sulfide H₂S levels as the month progressed.



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



6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

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

Key items of note are listed below.

- Completed maintenance service inspection for the smaller air blowers in basement [Aerzen]; No. 3 and No. 4.



- Replaced failed LDO probe and mounting in aeration tank #1. The new model probe required a new adapter. Isolated power to SC200 controller and connected the new probe in. Re-energized the controller and configured the probe. Completed air calibration and verified reading with handheld meter.
- Effluent wet well level was higher than the transducer reading causing the high-level float to trip and back-up system to engage. There were some floating sludge issues in wet well because of the recent process issues. A new transducer was installed and wired into the junction box.



- On-going repairs for Aeration Tank #1 required a confined space entry team for all work performed in the tank. Aeration piping, guide supports, locating plates and straps, and floor anchors all addressed where needed. The plant staff was assisted by W&C O&M Tech support & Lydon millwrights. DW/PH/ES and two millwrights. Completed repairs for rows 1 through 12. Over the 2 days. Repairs for the main air header was completed on a separate day. Verified torque of all hardware and unions.



- PS 9 – Pump #2 - Pioneer Electric tested existing VFD and found unit had failed. Mounted and wired in a new VFD.



- Mechanical aerator – tank #4 – Pioneer Electrical replaced failed VFD with new unit.
- Installed new mounting bracket on CCT 1 for chlorine residual probe.
- Replaced the fittings on both the feed and suction line of the hypo feed pump to the PW system
- PC #2 local Start/Stop switch repaired
- Evaluate and replace where needed – Yaskawa VFD cooling fans. Order additional stock of spare fans for various units.



- Replaced O2 sensor assembly. Calibrated sensor and verified operation



- Hoadley vac truck in - clean out blend box, so that D'Allessandro work could continue – coring of holes for pipes. Found additional wiring and hypo tube carrier pipe repairs needed by pri tank #2 due to excavation.

- PS#4 -Removed broken check valve springs and installed new replacements.



- Completed by JS, DW, and RH - installed 3 lengths of 2in conduit and new hypochlorite tubing going from the chlorine contact manhole into the primary gallery.





6.2 ASSET MANAGEMENT ACCOUNTS

Please see the attached summary and planned expenditures for the Asset Management accounts for contract year (6). Most recent through 09/09/20.

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 July.
- Monthly PM's - Emergency eyewash and shower inspections, fire extinguisher and emergency lighting inspections completed. The electrician worked on list of emergency lighting deficiencies.
- On-going Coronavirus Covid-19 updates discussed – staff separation planning, facility visitors, personal hygiene & company initiatives. Non-contact temp checks for staff & visitors. Work with onsite contractors to ensure that Covid-19 procedures in place and being followed. As outlined in the W&C COVID protocol for contractors entering O&M facilities, procedures will be sent to all contractors that may need to enter our facility. H&S will ensure this information gets distributed, as each project submitted a list of vendors / contractors that are utilized and required to enter the facility. Visitor logbook, and sign-in forms set up in lobby. Additional signage posted.
- Maintain supply of necessary safety items. – face shields, face masks, hand sanitizer, gloves, etc. Picked up free face masks offered through the MADEP. If possible, participation in weekly calls with MADEP and USEPA and follow up on their website for new information/updates.
- Ongoing - Daily safety briefing meetings, review site safety policies with sub-contractors, safety tailgate topics. Pure Safety topic– July – Respiratory Protection.
- Monthly staff safety meeting conducted on 7/29/20. RH prepared a PowerPoint presentation & some additional handouts. Reminders for daily safety briefing topics and discussion points & documentation, Coronavirus updates. Review "Lessons Learned" from June 2020, Near misses and incidents from other company projects.
- July safety Stand-down discussion – July 15th – Arc Flash Incident/near miss at one of the projects. Discuss Qualified Electrical Worker requirements, PPE, and electrical safety in the workplace.
- All staff have been issued a hardhat attachable face shield, and three disposable rubber band face shields. The staff have been using them when necessary in the RST room and while conducting the recent confined space entry work down in the aeration tank. However, after use we have been sanitizing and cleaning the shields for continued use

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 May discussed.
- Regular operational updates and process control discussions, pump station operations, especially with all sewer projects going on in the town, dig-safes, etc.
- Staff completed company mandated Harassment and Discrimination training modules.

Staffing related items:

- Staffing schedule – on-going awareness for staff separation, social distancing, face masks, other safety protocols on days where the full staff was on site [Tues, Wed, Thurs, or more than 4 staff members present.].
- Mass Maritime [MM] internship program on hold due to the Covid-19 emergency. Will consider a candidate in Fall 2020 if safe to do.
- No changes on the Sunday schedule plan. Coverage by Aram V., Roger B., Bill B., and Joe B. If Bill or Aram are not scheduled for a Sunday, they will be working on a Monday-Friday schedule.
- Supplementing staff needs with O&M tech support where needed. Limited due to Covid-19 emergency. Jody S providing coverage when staff levels are lower due to sickness, vacation, or training.

9 COLLECTION SYSTEM

9.1 WET WELL CLEANING

The actual schedule for wet well cleaning: May 2020 to April 2021:

(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, 2020	X				X			
June, 2020								
July, 2020	X			X				
Aug., 2020								
Sept. 2020								
Oct.,2020								
Nov, 2020								
Dec., 2020								
Jan., 2021								
Feb., 2021								
March 2021								
April 2021								

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 June.

- In-Pipe units – on-going battery change out, dosing unit repairs & cleaning and inspection. Circuit board troubleshooting, dosing pump repairs and replacement as needed. Working with “In-Pipe” 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 July.

- Three grinder pumps replaced – see utility cloud summary. Also, removed existing E-1 Grinder Pump at Elm Ave, so that a new complete station could be installed.
- The manhole in front of 9 Glover Ave was visited several times and cleaned. W&C found that there is a gap between the upstream PVC 6-inch pipe (most have been a previous repair or replacement as downstream is clay) and where the invert of the MH starts. The pipe was found to be slightly lower and the brick invert protruded up and was catching solids & debris. The work is to be scheduled with the GC currently working in Town at PS4 area.



Manholes:

- Staff continues to respond to numerous rattling manhole covers, because of on-going work by GMPS and SSES projects. Replace manhole cover cushion rings as needed.

Dig Safe mark outs:

- Dig-Safe mark outs were completed throughout the Town of Hull to assist/facilitate emergency gas repairs, broken water mains, roadway paving project, and other town projects.

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

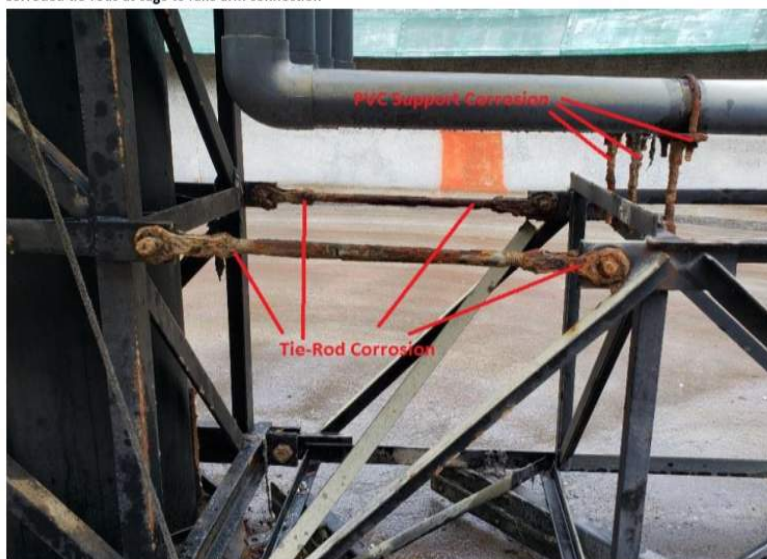
10 PROJECT MANAGEMENT & ADMINISTRATION



10.1 ON-GOING PROJECTS AND SUPPORT ITEMS

- The #2 secondary clarifier and #1 gravity thickener [GT] tanks remained out of service, while start dates for new equipment installation could be set up for the GT1 and repairs completed for SC #2. Lydon Contractors did provide inspection report for SC #2, and some additional repairs were authorized. The parts were ordered and the date to install planned for early August. The additional costs to be covered under the “Critical Spares” account. A couple of photos below indicating areas of greatest need for SC#2 [adjustable tie rods, skimmer arm support, and some scraper blades on the bottom of the rake arm.

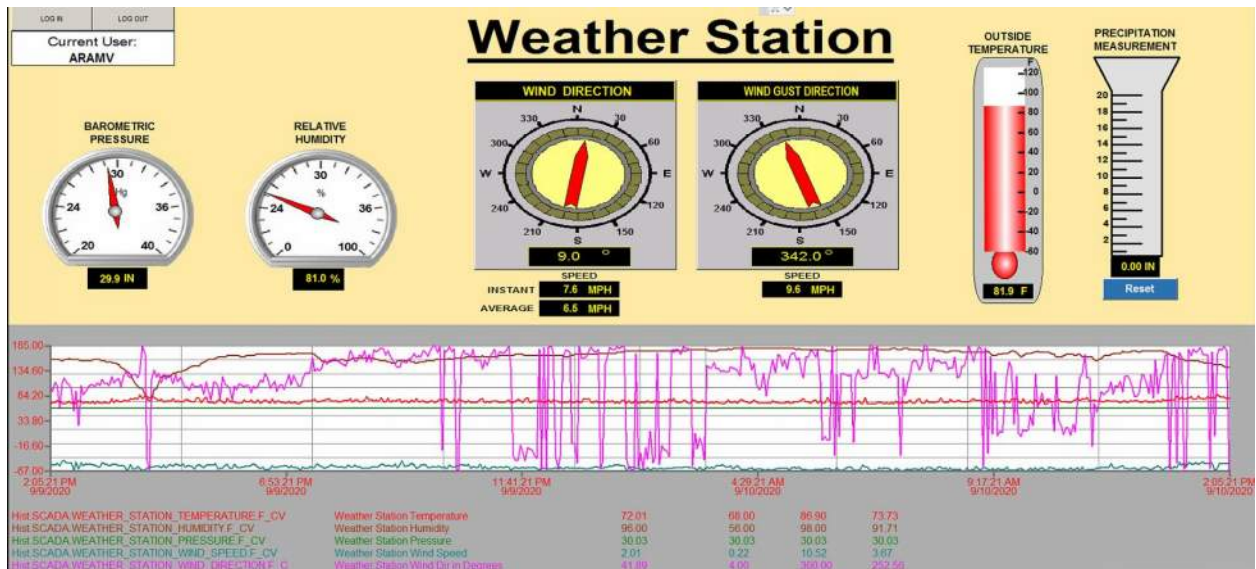
Corroded tie-rods at cage to rake arm connection



Angle supports on skimmer post are corroded – hardware damaged



- SCADA trending/screen programming done for weather station completed.



- The PSL and WAS line replacement by between the primary building and blend box was completed by D'Allessandro Corp. Bill B assisted with project management, pipe pressure testing, pipe location and pipe penetration through buildings. Pictured below: PSL and WAS trench where pipes were replaced, and blend box – new piping, valve, and cored holes



- Ongoing Rap-O ring (MH cover silencers/cushions) around town due to the amount of MH's being opened for I/I / MH investigations throughout Town.
- Bill has continued weekly calls and other daily coordination and data review with the Aquasight team. Additional coordination in July to kick off to launch the secondary / process efficiency milestone. Additional AI work related to the cybersecurity new hardware and firewalls work started in June.
- Continued work to support underground piping assessment. Focused on sludge holding tank and gravity thickener lines. Pictured below: use of facility's push camera in one of the 6-inch lines leading to the sludge pump room.
- Work to develop purchase order and sub-contract agreement for Truax Corp., for jetting and CCTV work, much to be covered under the upcoming roadway projects.
- Discuss upcoming Hurricane season amongst staff and necessary needs, potential threats, etc in the event of a storm.
- Planning for yard hydrant replacements in August/September with D'Allessandro Corp.



- On-going discussions with Xylem/Sanitaire to discuss aeration system grid piping components, membranes, and support hardware. Based upon the extent of the repairs needed in aeration tank #1, an order was placed to replace support hardware components that had failed, repair the PVC piping, and inspect all membrane diffusers in order to get the tank back in service as soon as possible. Discussed with the Town costs and need to have a full grid replacement available if necessary. An order for one full grid replacement was in the planning stages by the end of July. There were 5 rubber membrane diffusers sent out for evaluation. While the test results showed that the membranes were in very good condition for their age, Sanitaire recommended replacement, since the elasticity was very poor and rubber was brittle, indicating that failure could occur at any time. The age of the membranes is 18 years, and the typical service life is 10 years.
- Support and communication for PS#9 Design Basis Report work, including existing pump information, testing, and O&M joining architectural rendering calls for the future building changes.
- Assist with contractor site visits for upcoming HW concrete and pump station projects. Jim Sturgis in on 7/13 for the pump station and headworks inspection and mark out of concrete areas to be repaired.
- Participate in discussions for the hydrant flow testing, and W&C had a staff person on site for the actual flow testing that was done on July 15th.
- BB out to pump station #4 [PS4] and met with the Town, BETA Engineering, & Contractor [C. Naughton] about force main and gravity sewer construction work that will require PS-4 FM drain back and bypass of station - discussed options with the group for best success.

- Remainder of cables for new portable generator came in. Fellows Electric will install the new cable hook-up box at Lift Station A.
- D Street portable generator hook up equipment installed by Fellows Electric. Pending is test running of Onan generator there.

Asset Management Accounts - Year 6							
		Actual to date			Projected for Final Estimate		
Account		Budgeted Amount	Spent to Date	Delta	Projected costs and incl PO's	Final est	Delta
06M-101A	Preventive Maint	\$210,555.68	\$47,605.47	\$162,950.21	\$107,350.00	\$154,955.47	\$55,600.21
06M-102B	Capital and Major Repairs	\$140,000.00	\$3,540.60	\$136,459.40	\$132,500.00	\$136,040.60	\$3,959.40
06M-103A	Major Sub Contractors	\$178,370.75	\$88,677.70	\$89,693.05	\$155,600.00	\$244,277.70	(\$65,906.95)
blank					\$0.00		
	Asset Management	\$528,926.43	\$139,823.77	\$389,102.66	\$395,450.00	\$535,273.77	(\$6,347.34)

\$389,102.66

Budget expended	Time Status	
	NOW=	9/9/2020
	Start	5/1/2020
22.6%	36.1%	13.5%
2.5%	36.1%	33.5%
49.7%	36.1%	-13.6%
26.4%	36.1%	9.6%

06S	D Street	\$7,500.00	\$452.85	\$7,047.15	\$0.00	\$452.85	\$7,047.15
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6.0%	36.1%	30.0%
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For July M.O.R.

Hull 2019 - 06M Projects, Tasks, and Needs - 05-06-2020 (AV)

Maintenance Account - Year 6 - 05_01_20 to 04_30_21

\$395,450.00

9/9/2020 15:45

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Mechanical Work Labor	On Going		101A	\$21,000.00			Jody St. George, and WC Support Staff - estim \$3000/month; Total budget \$36,000; Incl annual scrubber cleaning, remove old blowers [mech]; Adj made 9/9/20.
1	Pump and Motor Repairs	Pending		101A	\$20,000.00			to keep existing equipment running - utilize various outside contractor repair shops, new purchases. Duperon motor, RST eurodrives,
1	Lubricants	Pending		101A	\$2,700.00			Various Suppliers for oil and grease. Budgeted \$3500; adj
1	Generator Repairs	Pending		101A	\$2,500.00			General Repair Work - Placeholder
1	Fire Alarm Inspections and Service	On Going		101A	\$3,000.00			Semi Annual - Hart Security [October & April, central station, & Service]
1	Universal waste disposal	Pending		101A	\$500.00			
1		Pending		101A				
1	Service the Forklift	Pending		101A	\$400.00			Annual cost - outside vendor
1	Overhead Hoist Inspection	Pending		101A	\$1,500.00			Annual task - Applied Dynamics - PO usually is issued in April,
1	Flow meter verification and calibration	Pending		101A	\$1,000.00			Annual - Ray Ferland 1 visit annually Aug/Sept
1	Facility Building - Roof Inspection	Pending		101A	\$2,900.00			Annual - Established contract with Tecta America
1	Pump Station #9 - Repairs Immediate	pending		101A				New valve, new check valve, replace pump assembly - Jody St. G. to assist; items rec'd [used up approx 50% of orig 4,000]; pending to be used if needed.
1	Jerome H2S Meter Inspection	Pending		101A	\$1,100.00			Annual Inspection - sent out includes annual service \$1100
1		Pending		101A				
1	butterfly valves for PW pumps 4 valves	Pending		101A	\$2,500.00			purchase and install
1	Hoisting platform ladder for the AST	Completed		101A				Completed, purchased for use with screenings box - \$600.00
1	Weather Station	completed		101A				Installed by Glenn F, June 2020, programming by SCADA group
1	Janitorial Supplies	On Going		101A	\$3,000.00			Estimated annual expenditures - Orig budget \$4,000; adj 4 months - 9/9
1	Backflow device testing	Pending		101A	\$400.00			done by, 3rd party
1	Manhole Inspections	Pending		101A				As required, and/or scheduled
2	General mechanical and electrical items/supplies	Pending		101A	\$12,000.00			Grainger, FWWebb, EJP, Hoadley, McMasterCarr, etc; orig budget \$18,000. Adj 9/9/20

1 of 5 9/9/2020

2020_05_01_06M_Checkbook_YTD

06M Planned Costs

For July M.O.R.

Hull 2019 - 06M Projects, Tasks, and Needs - 05-06-2020 (AV)

Maintenance Account - Year 6 - 05_01_20 to 04_30_21

\$395,450.00

9/9/2020 15:45

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	Vibration Analysis Survey	Pending		101A	\$4,000.00			Annual - 2 to 3 Days - Aeration System Blowers, Pump Station Pumps, etc./tbd; Paul H from W&C.
2	Valves	Pending		101A	\$4,000.00			Replacements and/or Service - On-Going - As Needed;
2	Hoses	Pending		101A	\$3,000.00			Replacements and/or Service - On-Going - As Needed;
2	Sump Pumps	Pending		101A	\$1,200.00			Replacements and/or Service - On-Going - As Needed -
2	Install 6" or 8" drop pipes in secondary clarifier #1 and #2	Pending		101A	\$2,000.00			In-house staff to fabricate, ? go to 8" pipe?
2	Effluent pump room pump bracket testing	Pending		101A				by Lightship Group - completed Aug 2020. On purchase order
2		Pending		101A				
2	Misc. Materials	On Going		101A	\$1,600.00			Hardware Store - \$200.00 per month - reoccurring expense; orig budget \$2,400
2		Pending		101A				
2	PS 1 impellers/flow	Pending		101A	\$5,000.00			look at increasing size of impellers, after Gunrock work completed
2	Lift Station A	Pending		101A				Pump efficiency lower than desired
2		Pending		101A				
3	Install new aeration channel angle iron for a slide gate	Pending		101A				Jody S to install - 2 days, if we do.\$2,500 estimate
3	Install a flow meter on the generator cooling water system - plant water	Pending		101A				Have an estimate [Oct 2018]; possible after 5/1/20
3	Lockers for the staff - Install	Pending		101A	\$1,500.00			Additional lockers to replace those removed years ago;
3	Purchase (1) spare Euro drives for the RST drum drive	Completed		101A				spare part item now in stock [\$800]
3	Purchase an LMI pump for the RST	Completed		101A				spare part item now in stock [\$1700]
3	Purchase an equipment lift or gantry	Pending		101A	\$2,500.00			planned cost \$2,500 for moving elec hoists around, & other equip
	Dehumidifiers for pump stations LS A & PS4, PS5	Pending		101A	\$3,300.00			for 3 pump stations at \$3300.00; 3 left to do
		Pending		101A				

Hull 2019 - 06M Projects, Tasks, and Needs - 05-06-2020 (AV)

Maintenance Account - Year 6 - 05_01_20 to 04_30_21

\$395,450.00

9/9/2020 15:45

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
	Lab Equip Calibration	Pending		101A	\$600.00			Annual service - usually Jan/Feb.
		Pending		101A				
	Mech seal[s] for RAS pumps 1 & 2	Pending		101A	\$1,800.00			for RAS pumps 1 & 2
		Pending		101A				
		Pending		101A	\$500.00			
	Purchase Two 6" valves for PS 4	On-going		101A	\$1,450.00			Estim cost \$1450
	Springs for check valves	On Going		101A	\$400.00			Purchased
1	Tecta Roof Repairs - proposed per 2020 inspection	Pending		102B	\$8,000.00			
1	(GT) Steel rake mechanism inspection and needed repairs	Pending		102B				place holder estimate (2) guys for (3) days - welding and materials - coating - These may be able to go under the Town bond account - \$10,000
1	(SC#1) Steel rake mechanism inspection and needed repairs	Pending		102B				place holder estimate (2) guys for (3) days - welding and materials - coating - These may be able to go under the Town bond account - \$7500
1	(SC#2) Steel rake mechanism inspection and needed repairs	Pending		102B				to be done from crit spares bond account Lydon (2) guys for (3) days - welding and materials - coating. \$11,500
1	Pri D-Box repairs	Pending		102B				possibly by D&C Construction as part of structural repair project Estim \$15,000
1	Replace scrubber recirc pump	Pending		102B	\$4,000.00			need for a spare pump
1	Sludge transfer pump #1 rebuild	Pending		102B	\$5,000.00			rebuild pump needed
1	Dynablend System is obsolete - mixing valve worn - need in kind or like system	Pending		102B	\$12,000.00			May or may not proceed with replacement, since unit still functioning, and polymer addition point changed and yielding good results. Removed cost \$11,000
2	grit classifier spare parts	Pending		102B	\$3,500.00			based on limited spare parts currently.
2	Pump Station Ladders	Pending		102B				We are complete except for PS #9
2	Sanitaire hardware purchase for aer tk 1	Completed		102B	\$3,500.00			Purchased July 2020
2	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, may hold until after 5/1/20; orig planned cost \$3,000.
2	Install (4-5) additional yard hydrants	On Going		102B	\$12,000.00			hydrants already purchased, and materials & contractor installation [2 days]; 1st day completed Aug 2020.

Hull 2019 - 06M Projects, Tasks, and Needs - 05-06-2020 (AV)

Maintenance Account - Year 6 - 05_01_20 to 04_30_21

\$395,450.00

9/9/2020 15:45

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	PS 4 valves, check valves	Pending		102B	\$7,500.00			After structural work, replace. Valves and check valves. May be a changeorder for D&C Constr.[\$4,000] Also 1 day for pump & hauling 2 trucks [\$3200]
3	SHT1 - demo a	Pending		102B				Contracted Project - During Headworks Bypass or possibly move to after May 1st 2020
3	Influent Distribution Box - Aerate Primary/Influent D-Box/Overflow Project	Pending		102B				Contracted Project - need State Approval - Facility/Process modification. Facilities Plan possible modification
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
1	Jerome meter replacement	Pending		102B				replace unit, if done \$11,000
	Rotating Sludge Thickener - Thickened Sludge Pump - rotor/stator	Completed		101A				purchased spare stator
		Pending		102B				
		Pending		102B				
		Pending		102B				
		Pending		102B				
	Electrical LS A hook up	On Going		102B	\$2,000.00			estimate look at 2 options - going with option one for new hokk up only
1	Electrical Work	On Going		103A	\$15,000.00			Electricians: Glen Fellows, HiVoltage, other; remv old blowers.lighting, sec bldg elec outlets - \$2,000/month; orig budget \$25,000; adj YTD
1	SCADA Work	On Going		103A	\$19,000.00			Steve Rose and the SCADA Support Team; orig budget \$25,000; reduce by \$6K on 9/9/20
1	E-One Repairs and Replacement	On Going		103A	\$12,000.00			Based on historical costs. E1 repairs where cost-effective & new replacement pumps; control panels, other equip; Orig budget \$25,000
1	Annual Generator inspection	Pending		103A	\$4,200.00			Annual - Highland Power - Generator PM/Service work - due in November
1	Automatic Transfer Switch inspection and servicing	Pending		103A	\$2,400.00			Annual Service planned for April Highland Power - NETS - Transfer Switch;
1	Wetwell Inspections and Cleaning - Pump Stations	On Going		103A	\$0.00			As required, plant or pump stations; orig budget \$10,000; reduce to zero on 9/9
1	Wetwell Inspection and Cleaning- Plant	On Going		103A				
1	Sewer Line Cleaning - Emergencies	On Going		103A	\$10,000.00			Placeholder - As required for various sub-contractors; could be Hoadley, Truax, WindRiver, BMC, or other.
1	Collection System - Jetting & CCTV work	On Going		103A	\$10,000.00			Budget - orig \$20,000; reduce it it \$10,000
4 of 51 9/9/2020	Collection System - Jetting Work & CCTV	On Going		103A	\$35,000.00			up to 35K - roadway proj work related - TBD for contractor [Truax] PO issued. 06M Planned Costs

Hull 2019 - 06M Projects, Tasks, and Needs - 05-06-2020 (AV)
Maintenance Account - Year 6 - 05_01_20 to 04_30_21

9/9/2020 15:45

\$395,450.00						
Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost
1	Aer tank repairs [labor]	Completed		103A	\$0.00	
1	Pump Station communication - changover to radio - phase 1	Pending		102B	\$75,000.00	
1	Pump Station communication - changover to radio - phase 2	Pending		102B		
1	Pump Station communication - changover to radio - phase 3	Pending		102B		
1	Pump Station communication - changover to radio - phase 4	Pending		102B		
2		Pending		103A		
2	Regen Aeration System - Pump Station #5	Pending		103A	\$1,500.00	
2	Dehumidifiers at three psat - equip and install	Pending		103A	\$6,000.00	
2	SHT1 - demo of equip, air piping & diffuser install/materials	Pending		103A	\$30,000.00	
2	Generators - Load Bank Testing	Pending		103A	\$3,000.00	
		Pending		103A		
		Pending		103A		
		Pending		103A		
		Pending		103A		
	Highland Power - Servicing the heat exchangers, fuel filters, etc	Pending		103A		
	Front building window repairs	Pending		101A		
1	Low pressure sewer valve box insp & mtce	Pending		103A	\$7,500.00	
1						
1						
TOTAL					\$395,450.00	

Comments

2 days - millwrights - Lydon \$3800

Equipment purchase to come from O&M on the Critical Spare List, based on latest quote from Doug Tirrell, \$14,200. Addit hardware cost \$800.00; 4/19 -adj down due to expenses coming in. Final costs to post w/e 4/24

labor to come from O&M on the Critical Spare List, based on latest quote from Doug Tirrell, \$11,500.00; Addit programming costs for aer controls. Adj down due to expenses coming in. Final costs to post w/e 4/24.

Electrical wiring and tie into the SCADA system -

Only est \$1,500 - Tie into the SCADA system - Glen Fellows, may wait until after 5/1/20

approx 2K per station - PS A, 4, & 6

In-house O&M project and staff labor \$10,000, demo of tank equip \$5,000, air piping \$10,000, materials \$5,000 - rough estimate

Look at under O&M - PS#1, PS#3, PS#4, PS#5, PS#6, and PS#9 (\$3,000)

Per proposal \$4,550.00

To be done under Engrn project

placeholder for contractor O&M inspections and potential repairs, Looking at Rosano-Davis & W&C to investigate

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class	View
7/1/2020 14:23	MH-20154	MH-20154	Sanitary Manhole	Sutton, Eric	Generic WO	View
7/13/2020 13:20	175 George Washington Blvd	175 George Washington Blvd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	View
7/2/2020 8:15	200 N Truro St	200 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Hull - Grinder Pump Maintenance	View
7/10/2020 12:44	97 N Truro St	97 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Hull - Grinder Pump Maintenance	View
7/17/2020 13:57	09-007	933 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/20/2020 14:14	10-002	77 PT ALLERTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:48	11-043	874 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:43	11-057	872 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:03	14-032	64 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:09	14-040	24 K STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:07	14-056	72 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:16	14-067	77 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:22	14-077	81 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:21	14-088	80 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:33	14-106	12 O STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 11:28	14-120	16 O STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/17/2020 13:53	15-034	40 K STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/1/2020 14:05	15-071	64 J STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 9:44	15-133	273 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/7/2020 11:33	16-047	2 H STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/17/2020 13:55	16-057	19 F STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/1/2020 14:06	16-076	46 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 10:58	16-148	56 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/8/2020 13:40	17-173	722 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:36	20-015	295 KINGSLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:23	20-042	375 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:19	20-045	373 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 9:51	21-009	166 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/7/2020 11:22	21-032	55 COBURN ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:30	22-100	390 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:21	22-112	350 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 9:57	23-100	118 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:04	24-107	230 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:10	24-137	264 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 11:08	24-138	0 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 10:03	25-014	66 MANOMET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 10:08	26-044	16 BATES ST	Hull Parcels	Sutton, Eric	Hull - Markout	View

7/17/2020 13:34	29-012	43 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/17/2020 13:37	29-072	55 WHITEHEAD AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/30/2020 20:53	32-020	282 NANTASKET RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 13:34	33-047	307 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 13:26	33-049	132 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 13:37	33-097	127 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 13:39	33-115	128 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 13:48	33-116	126 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 13:46	33-117	124 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/17/2020 13:31	33-131	16 SAGAMORE TERRACE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/8/2020 13:00	35-013	15 MARGINAL RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 14:10	35-033	111 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/24/2020 14:09	35-047	15 ISLAND VIEW RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 10:26	36-042	29 HAMPTON CIRCLE	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/20/2020 14:13	45-108	68 SALISBURY ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/23/2020 12:00	56-046	17 FARINA ROAD	Hull Parcels	Sutton, Eric	Hull - Markout	View
7/6/2020 15:24	05-021	40 VAUTRINOT AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
7/15/2020 21:39	09-084	9 GLOVER AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
7/15/2020 21:27	39-164	15 A BERKLEY RD	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
7/3/2020 16:30	43-073	7 DELLAWANDA RD	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	View
7/15/2020 13:55	47-071	90 NORTH TRURO ST	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	View
7/20/2020 13:58	23-100	118 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Customer Complaint	View
7/28/2020 11:21	MH-20161	MH-20161	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
7/28/2020 11:23	MH-20162	MH-20162	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
7/28/2020 11:17	MH-20165	MH-20165	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
7/14/2020 9:22	MH-20327	MH-20327	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	View
7/14/2020 9:28	MH-20482	MH-20482	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	View
7/17/2020 13:43	MH-20701	MH-20701	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	View
7/1/2020 14:09	MH-30074	MH-30074	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	View



Maintenance History Report

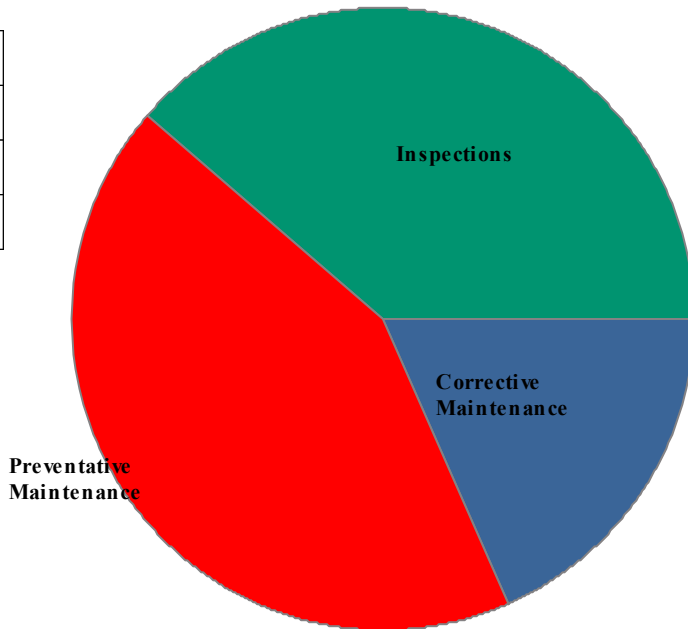
Hull Wastewater

Start Date: 7/1/2020

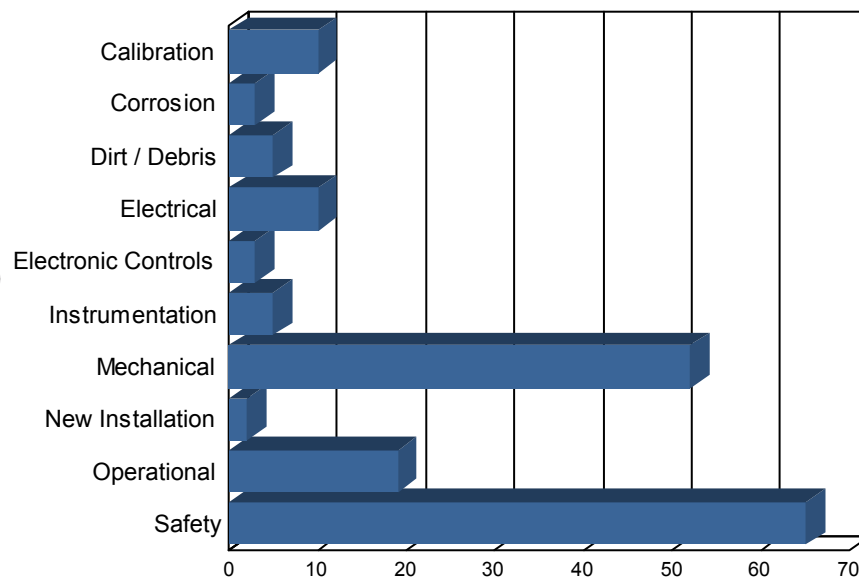
End Date: 7/31/2020

Work Order History By Type

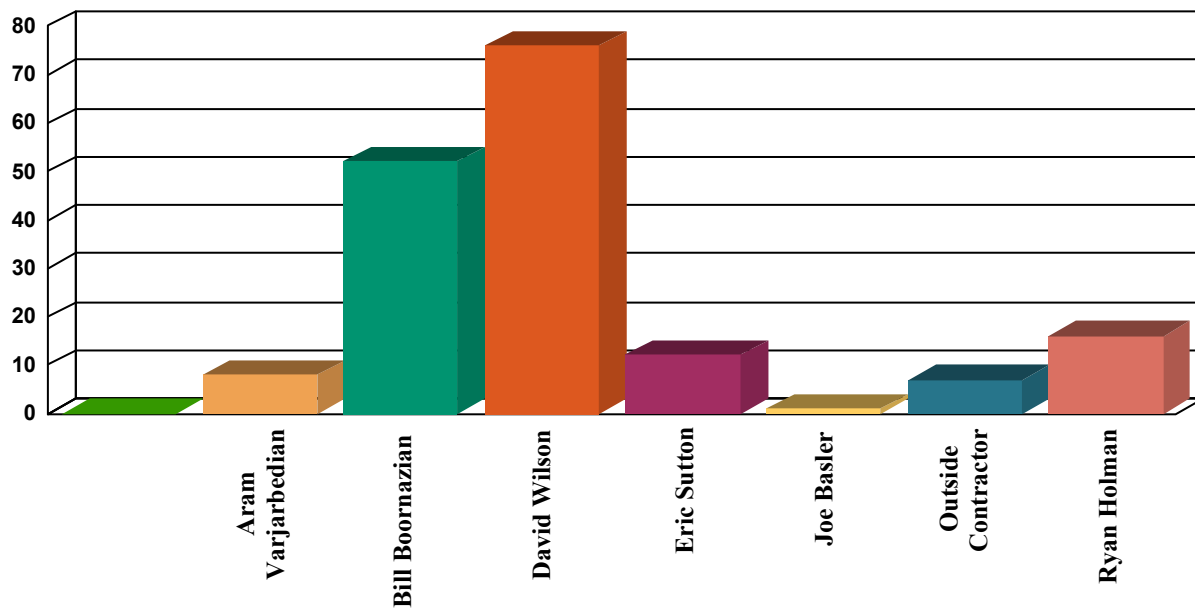
Corrective Maintenance	32
Inspections	67
Preventative Maintenance	75
Total Work Orders	174



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	8	17
Bill Boornazian	52	1110
David Wilson	76	110
Eric Sutton	12	2
Joe Basler	1	2
Outside Contractor	7	26
Ryan Holman	16	22
Unassigned	2	1
Totals	174	1288

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	11578	Emergency Lighting & exit signs	Monthly emergency lighting inspection.	Glen conducted work on the unit and it is now functioning properly.	Outside Contractor	2/13/20	Completed
7/1/20	11578	Emergency Lighting & exit signs	Monthly emergency lighting inspection.	Glen worked on the unit, and it is now functioning properly.	Outside Contractor	2/13/20	Completed
7/1/20	9235	Emergency Lighting & exit signs	Found some issues with emergency lighting.	This is part of new work going on in july glenn has been working on them	David Wilson	2/5/19	Completed
7/1/20	281	Emergency Lighting & exit signs	Repair broken E-Light & Exit signs	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boomazian	6/16/15	Completed
7/1/20	5599	Emergency Lighting & exit signs	Emergency Lights not working four locations	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boomazian	9/20/17	Completed
7/1/20	9782	Emergency Lighting & exit signs	E light in hallway to garage, one lamp out	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boomazian	5/20/19	Completed
7/1/20	9783	Emergency Lighting & exit signs	E light in hallway near MCC 1 not working	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boomazian	5/20/19	Completed
7/1/20	9785	Emergency Lighting & exit signs	2nd floor blower room e light not working	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boomazian	5/20/19	Completed
7/1/20	12369	PS 4 Wet Well	Vactor debris in wetwell	Vactored debris in wetwell	Eric Sutton	7/1/20	Completed
7/1/20	12370	PS A Wet Well	Vactored debris in wetwell	Vactored debris in wetwell	Eric Sutton	7/1/20	Completed
7/1/20	12371	20 - WW - collections - general	Hoadley removal of debris a dump	Removal of debris at pit	Eric Sutton	7/1/20	Completed
7/1/20	11581	Emergency Lighting & exit signs	Monthly emergency lighting inspection	Glenn performed work on this unit and corrected the issue.	Ryan Holman	2/13/20	Completed
7/1/20	11582	Emergency Lighting & exit signs	Monthly emergency lighting inspection	Glenn conducted work on the unit and fixed the issues	Ryan Holman	2/13/20	Completed
7/1/20	11583	Emergency Lighting & exit signs	Monthly emergency lighting inspection	Glenn perfomed work on the unit and fixed the issue.	Outside Contractor	2/13/20	Completed
7/1/20	11584	Emergency Lighting & exit signs	Monthly emergency lighting inspection	Glenn conducted work on the unit and fixed the issue.	Outside Contractor	2/13/20	Completed
7/2/20	12374	PS Trailer Mounted Generator	Diagnose running issue.	Inspected wiring, performed wiggle test. Started motor and checked idle speed. Low idle not supplying enough voltage to generator side. Lubed idle speed actuator pivot points and manually exercised. Ran generator and idle was corrected. Transferred to a loaded run. Ran fully loaded for 10 minutes and ran for an additional 20 minutes without error. Returned station to utility power. Set both pumps to auto.	David Wilson	7/2/20	Completed
7/6/20	12379	Primary Clarifier 2	Verify unknown wiring, check power	Glenn F on site check PC2 drive power and unknown wiring in trench. CSE into elec manhole to verify old wires are old and not being used. Chk and rn drive ok. Correct local wiring and correct deficiency. Now start/stop works on catwalk. Assisted by plant staff.	Outside Contractor	7/6/20	Completed

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/6/20	12382	Chlorine Contact Tank 1	Tank needs cleaning	Staff assisted - set up, take down of pump and hoses, clean tank. Pump to influent manhole.	Aram Varjarbedian	7/6/20	Completed
7/7/20	12380	Hypochlorite System	2in. Conduit and hypo hose repair going from chlorine manhole near aeration tanks into the primary gallery.	Completed by JS, DW, and RH installed 3 lengths of 2in conduit and a new hypo hose going from the chlorine contact manhole into the primary gallery.	Ryan Holman	7/7/20	Completed
7/8/20	12383	PS 4 Piping and Valves	Failed check valve springs	Removed broken springs and installed new replacements.	David Wilson	7/8/20	Completed
7/13/20	12388	Influent Pump 4 VFD	Drive fault - cooling fan fault	LOTO of equipment. Inspected and replaced both fans in order to make vfd available. Installed new fans and reenergized circuit. No faults, returned to service.	David Wilson	7/19/20	Completed
7/13/20	12385	O2 Meter Headworks	Failed sensor	Replaced O2 sensor assembly. Calibrated sensor and verified operation.	David Wilson	7/13/20	Completed
7/15/20	12392	Aeration Tank 4	Replace VFD for AT2 mechanical mixer.	Andy McKenzie (Pioneer Electrical) Electrically isolated VFD. Uninstalled failed drive. Mounted new like unit, wired and returned to service.	Outside Contractor	7/15/20	Completed
7/15/20	12393	PS 9 Pump 2	Failed VFD.	Andy McKenzie (Pioneer Electric) Electrically isolated VFD. Uninstalled failed unit. Mounted and wired a new VFD.	Outside Contractor	7/15/20	Completed
7/15/20	12390	Aeration Tank 1	Inspect and replace mounting hardware for Sanitaire Aeration System.	DW/PH/ES and two millwrights. CSE Replaced anchors, locating plates, brackets, and straps as needed. Completed 6 of 12 rows. Replaced a pvc diffuser and union.	David Wilson	7/15/20	Completed
7/16/20	12391	Aeration Tank 1	Inspect and replace mounting hardware for Sanitaire Aeration System.	DW/PH/ES and two millwrights. CSE Inspected and replaced anchors, locating plates, brackets and straps as needed. Completed rows 7 through 12. Inspected manifold hardware and verified ordered parts for repair. Verified torque of all hardware and unions. Manifold repairs to be completed when parts come in.	David Wilson	7/16/20	Completed
7/17/20	12386	Hypochlorite Pump 3	Plant water hypo pump leaking	Replaced the fittings on both the feed and suction line of the pump.	Joe Basler	7/17/20	Completed
7/19/20	12387	Influent Pump 2 VFD	Drive fault- cooling fan circuit	LOTO of influent pump 2 vfd. Inspected fan assembly. Turns freely. Installed new fan and reenergized circuit. Ran drive at different frequencies without the fault returning.	David Wilson	7/19/20	Completed
7/21/20	12394	Operations Building	COVID-19 signs put up at main entrance and garage entrance	Recieved 3 signs. Put a copy of each sign up on the main entrance doors and up on the concrete outside of the garage door.	Ryan Holman	7/21/20	Completed
7/27/20	12395	36 - WW Effluent Process	Wet well transducer fail and replace	Effluent wet well higher than transducer reading causing high level float to trip. Some sludge issues in wet well from process issues. Replaced 5psi transducer with new and wired into junction box. BB and Dave 1.5 hours.	Bill Boornazian	7/28/20	Completed
7/28/20	12396	Chlorine probe AT1	Not working	AV and RH, on 7/24 and 7/28, repl probe and holder with new unit. PREV attempts to calibrate, not working. Consult Chris William's of Sullivan Assoc. Poss age of holder, or lightning strike/surge.	Aram Varjarbedian	7/28/20	Completed

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/30/20	12397	Aeration Tank 1 Oxygen Probe	Failed LDO probe.	Uninstalled failed LDO probe and mounting. Different thread size required adapter. Installed new model 2 LDO probe and mounting. Isolated power to SC200 and connected probe. Energized controller and configured probe. Completed air calibration and verified reading with handheld tester.	David Wilson	7/30/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	6069	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	These are older and have been remade in 2020 during repairs by Glenn. Various items were previously repaired prior to this.	Bill Boornazian	1/10/18	Completed
7/1/20	3626	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	2/8/17	Completed
7/1/20	4069	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	4/12/17	Completed
7/1/20	4317	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	5/10/17	Completed
7/1/20	5448	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	10/11/17	Completed
7/1/20	5631	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	11/8/17	Completed
7/1/20	5843	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	12/13/17	Completed
7/1/20	6249	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	2/14/18	Completed
7/1/20	6404	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	3/14/18	Completed
7/1/20	6544	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	4/11/18	Completed
7/1/20	6724	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	5/9/18	Completed
7/1/20	6926	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	6/13/18	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	7119	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	7/11/18	Completed
7/1/20	7473	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	9/12/18	Completed
7/1/20	7645	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	10/10/18	Completed
7/1/20	7814	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	11/14/18	Completed
7/1/20	8528	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	2/13/19	Completed
7/1/20	9345	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	4/10/19	Completed
7/1/20	10435	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	9/11/19	Completed
7/1/20	10799	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	All emergency lighting has been resassted in 2020 and Glenn has been working on repairs. See 2020 work order updates	Bill Boornazian	12/11/19	Completed
7/1/20	5445	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	10/15/17	Completed
7/1/20	5628	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	11/12/17	Completed
7/1/20	5838	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	12/3/17	Completed
7/1/20	5839	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	12/10/17	Completed
7/1/20	5840	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	12/17/17	Completed
7/1/20	5841	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	12/24/17	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	5842	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	12/31/17	Completed
7/1/20	6539	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	4/1/18	Completed
7/1/20	6540	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	4/8/18	Completed
7/1/20	6541	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	4/15/18	Completed
7/1/20	6542	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	4/22/18	Completed
7/1/20	6543	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	4/29/18	Completed
7/1/20	7115	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	7/8/18	Completed
7/1/20	7117	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	7/22/18	Completed
7/1/20	7118	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	7/29/18	Completed
7/1/20	7469	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	9/9/18	Completed
7/1/20	7470	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	9/16/18	Completed
7/1/20	7471	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	9/23/18	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	7472	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	9/30/18	Completed
7/1/20	7642	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	10/14/18	Completed
7/1/20	7643	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	10/21/18	Completed
7/1/20	7644	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	10/28/18	Completed
7/1/20	7810	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	11/4/18	Completed
7/1/20	7811	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	11/11/18	Completed
7/1/20	7812	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	11/18/18	Completed
7/1/20	7813	Eyewash Stations	WWTF Eyewash Inspection - Weekly	All emergency eyewashes are up to date and inspected. this is a bulk work order closeout for backed up sems weekly inspections that did not get closed out.	Bill Boornazian	11/25/18	Completed
7/2/20	11780	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Tested and inspected all emergency eye wash and shower stations. Also recharged the portable eye wash stations located in the influent pump room & sodium bisulfite shed.	Ryan Holman	6/28/20	Completed
7/5/20	12378	Truck 2 - 2009 Chevy 2500 HD	Perform vehicle inspection	Inspected vehicle - See doFORMS report for full details.		7/5/20	Completed
7/5/20	11876	Truck 2 - 2009 Chevy 2500 HD	Monthly vehicle inspection on do-Forms	Inspected vehicle and completed maintenance required.	David Wilson	6/1/20	Completed
7/7/20	12012	Truck 1 - 2010 Dodge Ram 1500	Monthly vehicle inspection on do-Forms	Checked all fluid levels. Brought up to operating temp. Drained oil and replaced filter. Set oil level hot. No new issues found.	David Wilson	7/6/20	Completed
7/7/20	12381	Truck 1 - 2010 Dodge Ram 1500	Perform vehicle inspection	Rocker panel corrosion worse than I thought. Sliding undo the vehicle during oil change, my knee knocked a hole in the drivers side panel.		7/7/20	Completed
7/7/20	12022	Truck 2 - 2009 Chevy 2500 HD	Monthly vehicle inspection on do-Forms	Inspected vehicle and performed basic tune up.	David Wilson	7/6/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/8/20	11968	PS 6	PS #6 Inspection - Monthly	Inspected wet well, seals, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump. Wet well surface solids visible from above.	David Wilson	7/2/20	Completed
7/8/20	11969	PS 9	PS #9 Inspection - Monthly	Inspected wet well, seals, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump.	David Wilson	7/2/20	Completed
7/8/20	11964	PS 1	PS #1 Inspection - Monthly	Inspected wet well, pump seals, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump.	David Wilson	7/2/20	Completed
7/8/20	11965	PS 3	PS #3 Inspection - Monthly	Inspected wet well, seals, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump.	David Wilson	7/2/20	Completed
7/8/20	11970	PS A	PS #A Inspection - Monthly	Inspected wet well, and fire extinguisher. Tested high level alarm and sump pump.	David Wilson	7/2/20	Completed
7/8/20	11921	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	7/5/20	Completed
7/8/20	11966	PS 4	PS #4 Inspection - Monthly	Inspected wet well, seals, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump. Noticed intermittent water hammering from pump 1. Follow up required.	David Wilson	7/2/20	Completed
7/8/20	11967	PS 5	PS #5 Inspection - Monthly	Inspected wet well, seals, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump.	David Wilson	7/2/20	Completed
7/8/20	12009	Fire Extinguishers	WWTF Fire Extinguisher Inspections - Monthly	Inspected all fire extinguishers located in the plant.	Ryan Holman	7/6/20	Completed
7/9/20	12384	20 - WW - collections - general	Manhole cover antenna mounting	Set up ventilation to direct smoke outside of ops building. Drilled hole through manhole cover to 9/16. Ran wiring and mounted antenna.	David Wilson	7/9/20	Completed
7/14/20	11922	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	7/12/20	Completed
7/14/20	11925	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	Inspected and tested all emergency lighting throughout the plant.	Ryan Holman	7/8/20	Completed
7/27/20	11923	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	7/19/20	Completed
7/29/20	12030	Truck 4 - 2015 Nissan Frontier	Monthly vehicle inspection on do-Forms	Ok, 105555 miles. Got Insp sticker early July	Aram Varjarbedian	7/6/20	Completed
7/31/20	11924	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	7/26/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	12372	Grit Chamber Blower #4	Annual service and inspection	LOTO of equipment. Removed panels from sound proofing enclosure. Removed intake plenum and inspected rotor to case clearances. Installed new air filter element and cleaned baffles. Inspected belts, pulleys and set deflection. Reassembled and returned to service.	David Wilson	7/1/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/1/20	12373	Sludge Storage Tank Blower #3	Annual service and inspection	LOTO of equipment. Removed panels from sound proofing enclosure. Removed intake plenum and inspected rotor to case clearances. Installed new air filter element and cleaned housing. Inspected belt, pulleys and set deflection. Reassembled and returned to service.	David Wilson	7/1/20	Completed
7/2/20	11889	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms throughout the plant.	Ryan Holman	6/28/20	Completed
7/5/20	11899	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	6/29/20	Completed
7/5/20	11869	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	6/29/20	Completed
7/5/20	11898	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	6/22/20	Completed
7/5/20	11868	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	6/22/20	Completed
7/5/20	12039	Generators "All Pump Station"	Generator - Monthly Load Test		Eric Sutton	7/5/20	Completed
7/5/20	12016	PS Trailer Mounted Generator	Generator - Monthly Load Test	Loaded generator run. All loads applied for 10 minutes without issue. 20 minutes without load.	David Wilson	7/5/20	Completed
7/5/20	11798	Influent Sluice Isolation Gate	Weekly operate through full range	Exercised on Wednesday. No issues found.	David Wilson	6/24/20	Completed
7/5/20	12043	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected fluid level in SC1 gearbox. Add 1qt. Worm gear seal is allowing fluid to pass.	David Wilson	7/5/20	Completed
7/5/20	12377	Truck 2 - 2009 Chevy 2500 HD	Replace spark plugs, oil filter and oil. Recharge refrigerant.	Drained oil and removed filter. Removed and read spark plugs. Plug color is a bit lean and gaps are at max gap. Replaced spark plugs and reassembled wires with dielectric grease. Inspected air conditioner. Low pressure side had no pressure. Recharged a/c with R134A. A/C blowing cold air after full bottle.	David Wilson	7/5/20	Completed
7/6/20	12011	GODWIN Portable Pump	Test Run Godwin Pump-Monthly	Inspected fluid levels. Brought up to operating temp. No unusual noises or vibration. Pumped out fuel containment area. 253.6 hours	David Wilson	7/1/20	Completed
7/6/20	11920	Portable Generator - Honda	Portable Generator Inspection - Monthly	Inspected fluid levels. Brought up to operating temp and shut off fuel. No issues found.	David Wilson	7/1/20	Completed
7/7/20	11806	Aeration Blower 2	Aeration Blower #2 Air Filter Inspection - Monthly	Inspected and replaced air filter element.	David Wilson	6/25/20	Completed
7/7/20	11951	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly	DO probe failed. SC 200 does not recognize that it is connected.	David Wilson	7/7/20	Completed
7/7/20	11873	Meter #4 - 4 Gas	4 Gas Meter #4 Calibration - Monthly	Zeroed and tested calibration. No issues found.	David Wilson	6/25/20	Completed
7/7/20	11872	Meter #3 - 4 Gas	4 Gas Meter #3 Calibration - Monthly	Zeroed and tested calibration. No issues found.	David Wilson	6/25/20	Completed
7/7/20	11875	Meter #6 - 4 Gas	4 Gas Meter #6 Calibration - Monthly	Out of service due to a failed sensor.	David Wilson	6/25/20	Completed
7/7/20	11874	Meter #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Out of service due to a battery that will not take a charge.	David Wilson	6/25/20	Completed
7/7/20	12010	Meters - 4 Gas Confined Space #1	4 gas meter calibration - monthly	Zeroed and tested calibration. No issues found.	David Wilson	7/1/20	Completed
7/7/20	11880	Confined Space 4 Gas Meter	monthly calibration	MaxXTII #1 Zeroed and tested calibration. No issues found	David Wilson	6/25/20	Completed

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Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/7/20	12035	Meters - 4 Gas Confined Space #2	4 gas meter calibration - monthly	Zeroed and tested calibration. No issues found.	David Wilson	7/1/20	Completed
7/7/20	11871	Meter #2 - 4 Gas	4 Gas Meter #2 Calibration - Monthly	Out of service. Fell into GT1	David Wilson	6/25/20	Completed
7/7/20	11962	Sludge Transfer Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11963	Sludge Transfer Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11959	RST Feed Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11958	RST Feed Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11960	Primary Sludge Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11961	Primary Sludge Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11957	RAS Pump 3	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11956	RAS Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	11955	RAS Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/7/20	12007	Plant Water Pump 1	Monthly Check Pump Couplings	Direct drive.	David Wilson	7/1/20	Completed
7/7/20	12008	Plant Water Pump 2	Monthly Check Pump Couplings	Direct drive.	David Wilson	7/1/20	Completed
7/7/20	12036	Recirculation pump #1	Monthly Check Pump Couplings	Direct drive.	David Wilson	7/1/20	Completed
7/7/20	12037	Recirculation Pump #2	Monthly Check Pump Couplings	Direct drive.	David Wilson	7/1/20	Completed
7/8/20	11933	Influent Sluice Isolation Gate	Weekly operate through full range		Ryan Holman	7/1/20	Completed
7/10/20	11952	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly	LDO probe out of service.	David Wilson	7/7/20	Completed
7/11/20	12031	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms throughout the plant.	Ryan Holman	7/5/20	Completed
7/11/20	12032	High level floats	Weekly High Float Alarm test	Tested all high level floats.	Ryan Holman	7/12/20	Completed
7/12/20	12044	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set fluid level in SC1 gearbox. 1qt flowable grease added.	David Wilson	7/12/20	Completed
7/12/20	11938	Mechanical Screen & Washpress System	Monthly Maintenance	Cleaned all scrapers. Inspected bearings, linkage, pins, retaining rings and drive system. No issues found.	David Wilson	7/6/20	Completed
7/12/20	11877	Building Flood Control	Semi Annual PM of Flood Gates	Greased all bushings, inspected gasket and exercised dogs and doors through full range of motion.	David Wilson	6/18/20	Completed
7/15/20	11935	Influent Sluice Isolation Gate	Weekly operate through full range	Operated locally and returned to remote control.	David Wilson	7/15/20	Completed
7/17/20	12033	High level floats	Weekly High Float Alarm test	Inspected and tested all high level floats and alarms throughout the plant.	Ryan Holman	7/19/20	Completed
7/19/20	12045	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set fluid level in SC1 gearbox. 1qt flowable grease.	David Wilson	7/19/20	Completed

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Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/20/20	12040	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	7/13/20	Completed
7/20/20	12013	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	7/13/20	Completed
7/20/20	11941	Influent Pump 2	Semi Annual - ARI air release valve insp and cleaning	Cleaned and inspected air release. Tested as good. Returned to service.	David Wilson	7/1/20	Completed
7/20/20	11942	Influent Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Some wear with a little dust. Returned to service.	David Wilson	7/1/20	Completed
7/20/20	11944	Influent Pump 3	Semi Annual - ARI air release valve insp and cleaning	Cleaned and inspected air release. Tested as good. Returned to service.	David Wilson	7/1/20	Completed
7/20/20	11943	Influent Pump 3	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found.	David Wilson	7/1/20	Completed
7/20/20	11945	Influent Pump 4	Semi Annual - ARI air release valve insp and cleaning	Cleaned and inspected air release. Tested as good. Returned to service.	David Wilson	7/1/20	Completed
7/20/20	11948	Influent Pump 5	Semi Annual - ARI air release valve insp and cleaning	Cleaned and inspected air release. Tested as good. Returned to service.	David Wilson	7/1/20	Completed
7/21/20	11931	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Checked all fluid levels. Brought up to operating temp and recorded all run data. No unusual noises or vibration.	David Wilson	7/20/20	Completed
7/21/20	11927	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Checked all fluid levels. Brought up to operating temp and recorded all run data. No unusual noises or vibration. Cleaned strainer basket.	David Wilson	7/20/20	Completed
7/21/20	12389	Chlorine Contact Tank 1	Mount bracket for analyzer.	Installed new mounting bracket on CCT 1.	David Wilson	7/21/20	Completed
7/21/20	11940	Influent Pump 1	Semi Annual - ARI air release valve insp and cleaning	Cleaned and inspected air release. Tested as good. Returned to service.	David Wilson	7/1/20	Completed
7/21/20	11939	Influent Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	7/1/20	Completed
7/21/20	11946	Influent Pump 4	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found.	David Wilson	7/1/20	Completed
7/21/20	11947	Influent Pump 5	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Some dust otherwise good overall. Returned to service.	David Wilson	7/1/20	Completed
7/22/20	12014	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	7/20/20	Completed
7/22/20	12041	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	7/20/20	Completed
7/22/20	11930	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Generator ran automatically. Personnel not available to record run data.	David Wilson	7/13/20	Completed
7/22/20	11926	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Generator did not run as scheduled. Personnel not available.	David Wilson	7/13/20	Completed
7/22/20	11934	Influent Sluice Isolation Gate	Weekly operate through full range	Exercised remotely with SCADA.	David Wilson	7/8/20	Completed
7/24/20	11882	Chlorine probe ATI	Weekly calibration	Attempt to cal. Error msg, probe assembly poss bad. AV and RH	Aram Varjarbedian	6/22/20	Completed
7/24/20	11883	Chlorine probe ATI	Change electrolyte	Done in July, failed. Consult with rep. Order new probe	Aram Varjarbedian	6/1/20	Completed
7/28/20	11932	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Weekly no load done	David Wilson	7/27/20	Completed
7/28/20	12026	Chlorine probe ATI	Weekly calibration	New holder and probe. Calibrated.	Aram Varjarbedian	7/6/20	Completed

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Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
7/28/20	12042	Generators "All Pump Station"	Generator Weekly - Test Run no load		David Wilson	7/27/20	Completed
7/28/20	11881	Chlorine probe AT1	Weekly calibration	Closed out work order due to subsequent work done on July 24th and July 28th	Aram Varjarbedian	6/8/20	Completed
7/29/20	12028	Chlorine probe AT1	Change electrolyte	Chg did and new probe cap and Assyrian	Aram Varjarbedian	7/1/20	Completed
7/30/20	11950	Aeration Blower 2	Aeration Blower #2 Air Filter Inspection - Monthly	Inspected and cleaned air filter element.	David Wilson	7/23/20	Completed