



HULL WATER POLLUTION CONTROL FACILITY

August 2020

MONTHLY OPERATING REPORT



NPDES NO. MA0101231

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

Table of Contents

1	Executive Summary	2
2	Flows and Loadings	3
2.1	Average Effluent Monthly Flows – Two Year Comparison	4
2.2	Monthly Summary of Rainfall and the Influence on Effluent Flows.....	5
3	Compliance.....	7
4	Key Performance Indicators.....	11
4.1	Water Quality – August 2020	11
5	Odor Control.....	15
6	Maintenance Summary.....	18
6.1	Tasks Completed this Month.....	18
6.2	Asset Management Accounts.....	25
7	Safety	26
8	Staff Development	27
9	Collection System.....	28
9.1	Wet Well Cleaning.....	28
9.2	Collection System Maintenance.....	28
10	Project Management & Administration	30
10.1	On-Going Projects and Support Items.....	30

Cover pictures:

[top] Secondary Clarifier #1 repairs – catwalk removal, prior to new gear box installation [IPC Lydon]

[bottom] Aeration Tank #4 – W&C staff performing tank cleaning

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 2020.

- No lost-time incidents for the month of August.
- On-going 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. Multiple contractor projects and Covid-19 planning.
- There were 148 effluent samples taken in the month of August. [details on page (12).] All effluent samples compliant. The average daily flow for the month was 0.94 MGD. A total of 2.12 inches of rainfall was recorded. There were no significant rain events that occurred during the month.
- Process conditions continued to be fair with slow improvement through first half of the month. The Secondary clarifiers were swapped over for repairs, and during the transfer a rotted RAS pipe was rotted in D-box by the SC #1 clarifier.
- All secondary clarifier gear box and mechanical work was completed. Gravity thickener #1 [GT 1] – new gear box installed & old equipment in GT2 was removed.
- The plant and collection system odors were higher, due to very low flows. The Bioxide system was in full operation in August and upward adjustments being made for more chemical addition. There were 3 odor complaints related to plant odors, primarily 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 5 grinder pump call outs during the month of August with pump replacements.
- W&C O&M continued to support many of the Engineering projects with a focus on getting the construction started within the headworks and O&M planning changes to the screenings box and drain piping in the headworks to maintain operations of lab, bathrooms and RST during work.

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

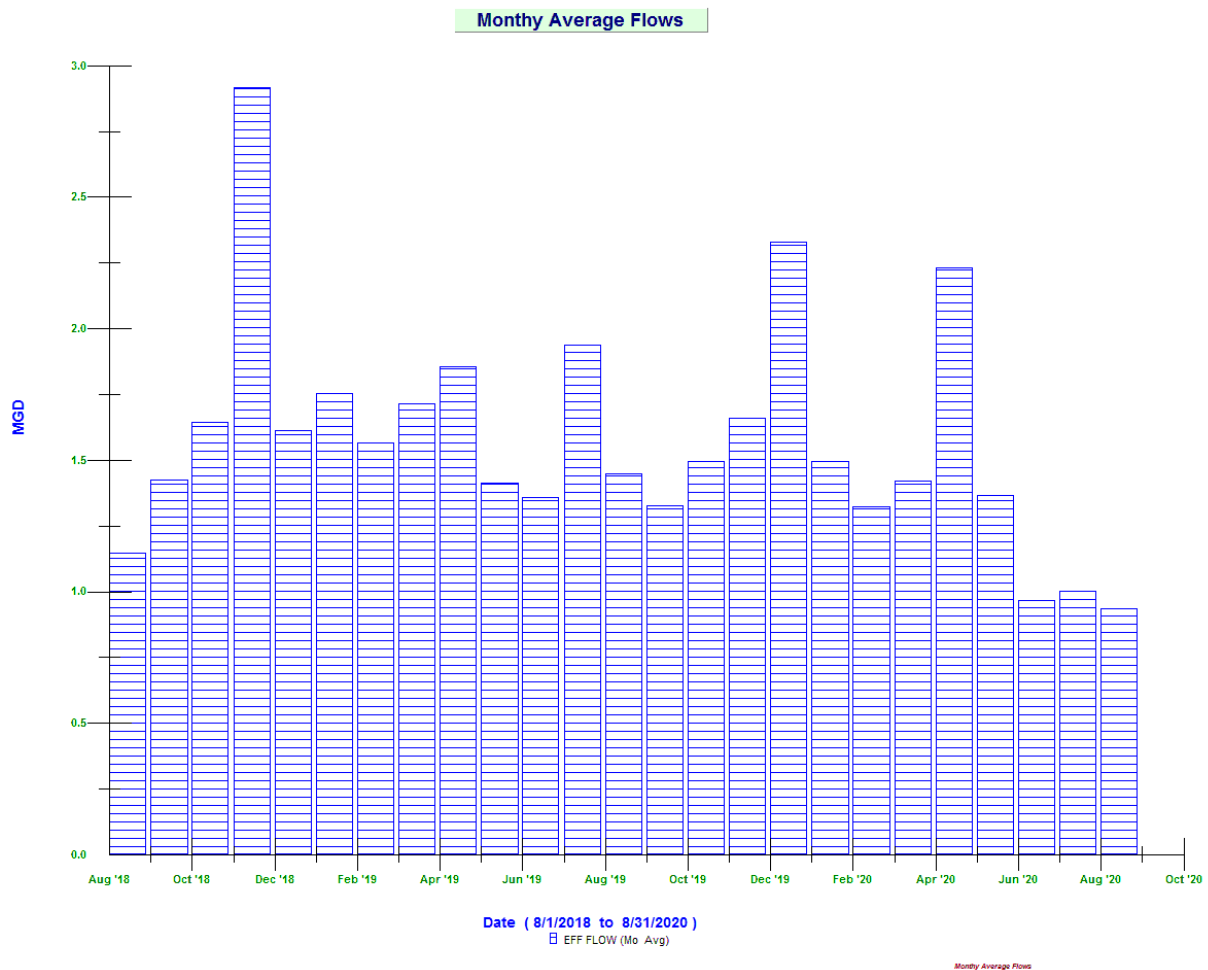


Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
Aug 2018	1.146	1.610*	1277	2681	50	152
Aug 2019	1.449	1.684*	1617	4326	64	142
Aug 2020	0.936	0.975*	1145	1875	42	135

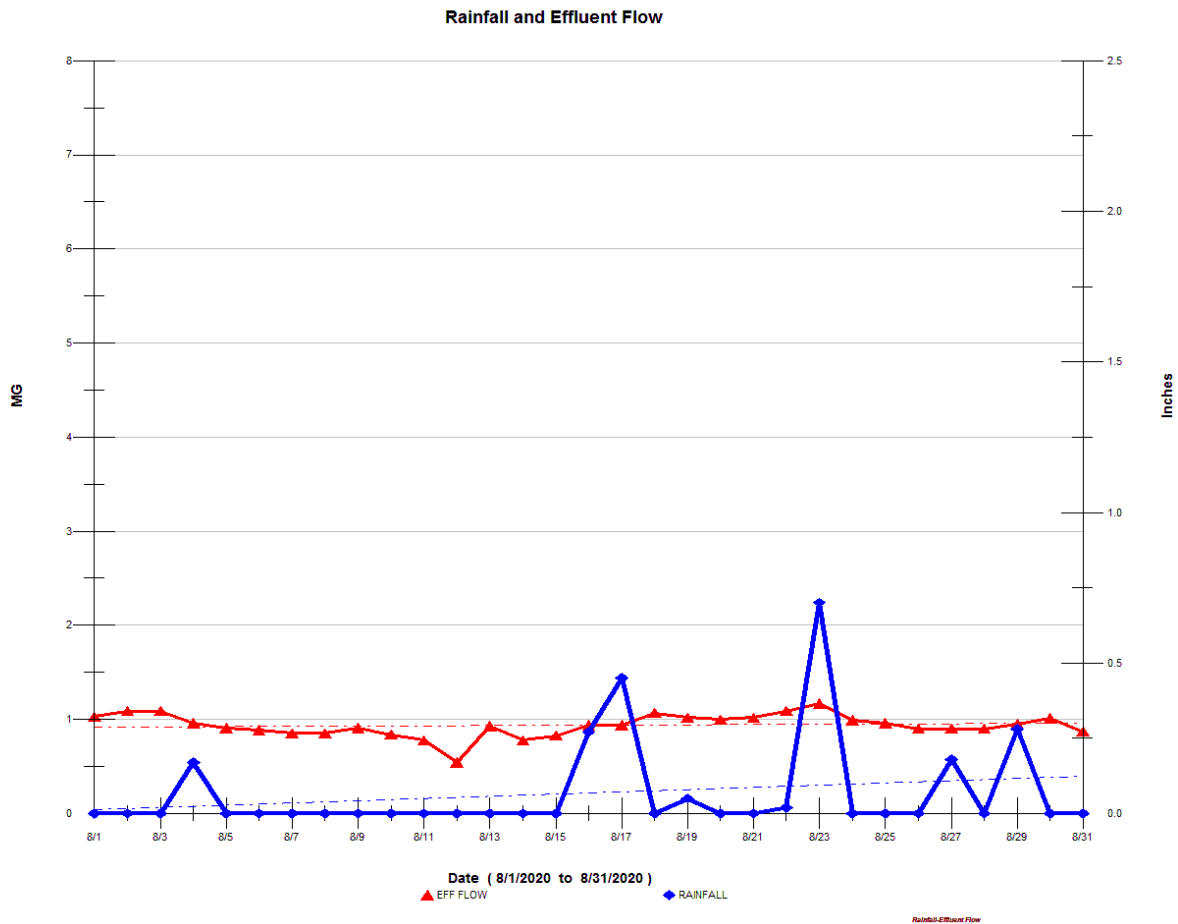
* On-Going -The influent flow meters are strap on doppler flow meters, and the internal pipe condition prevents getting a strong signal. The staff utilizes the area velocity meter in the aeration tank inlet channel as well as the headworks influent Parshall Flume meter. All reported loadings are based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

Average Effluent Monthly Flows – Two-Year Comparison

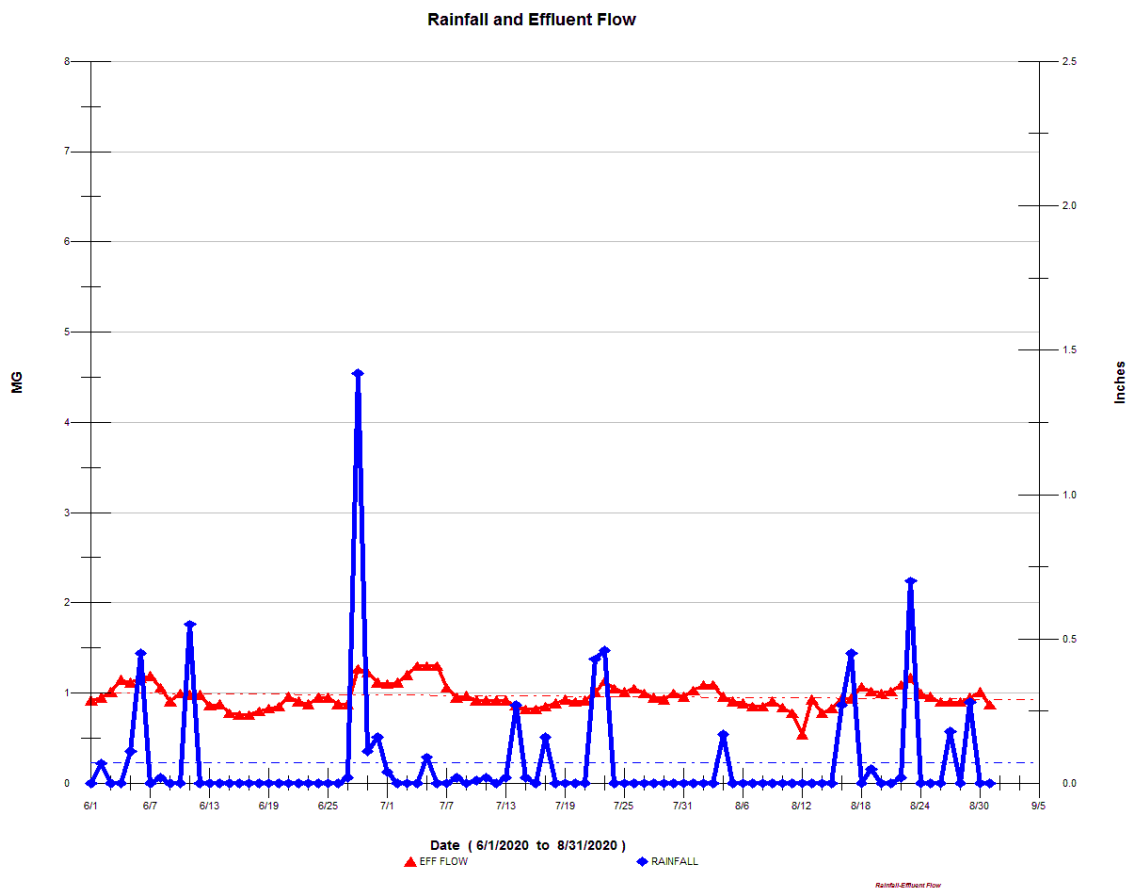


The monthly average flow for August was 0.94 MGD, slightly lower than July. The total precipitation for the month was 2.12 inches. The graph shows the 2-year summary of the monthly average flows.

2.1 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 July, this graph indicates that there were few wet days in August 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: June, July and August and the very low impact of rainfall/precipitation on plant flows. The last 3 months have been very dry months.

3 COMPLIANCE



➤ Plant Effluent

There were no permit exceedances in the month of August.

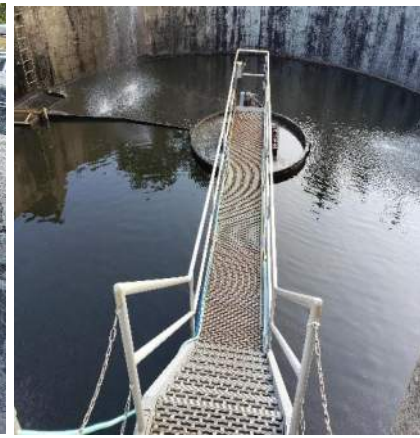
- Plant process conditions continued to be challenging as the biological part of the plant seemed to be stuck in an area where the process sludge age did not increase much, even as wasting rates were kept low or off. The effluent quality remained fair but compliant. Additional chemicals for disinfection and dechlorination, sodium hypochlorite and bisulfite, were needed to remain in permit compliance. Chlorination of the return sludge was eventually stopped. In late July, the facility also took in 2 loads of seed sludge from the Scituate WWTP. The double-Drylet dose continued with additional bacteria being added to the system daily. While some slight improvements were seen at the end of July and into early August, it wasn't until an equipment change was made for a capital repair project, where a rotted RAS [return activated sludge] pipe in the D-box by the #1 secondary clarifier was discovered. The worsening of the pipe condition contributed to less RAS flow making it back to the aeration tanks in the recent weeks, and we suspect that this condition may have contributed to the septic conditions in the activated sludge system, formation of filamentous bacteria, and lack of biological growth in the system. During the clarifier change, there were significant odors surrounding the facility, and the staff worked into the evening to clean out the clarifier tank that was coming off-line. A neighborhood odor warning letter was distributed. The photos below showing the improving process conditions.



Heavy solids/foam on aeration tank #1



Aeration Tank #3 – improving results



Secondary clarifier - improving

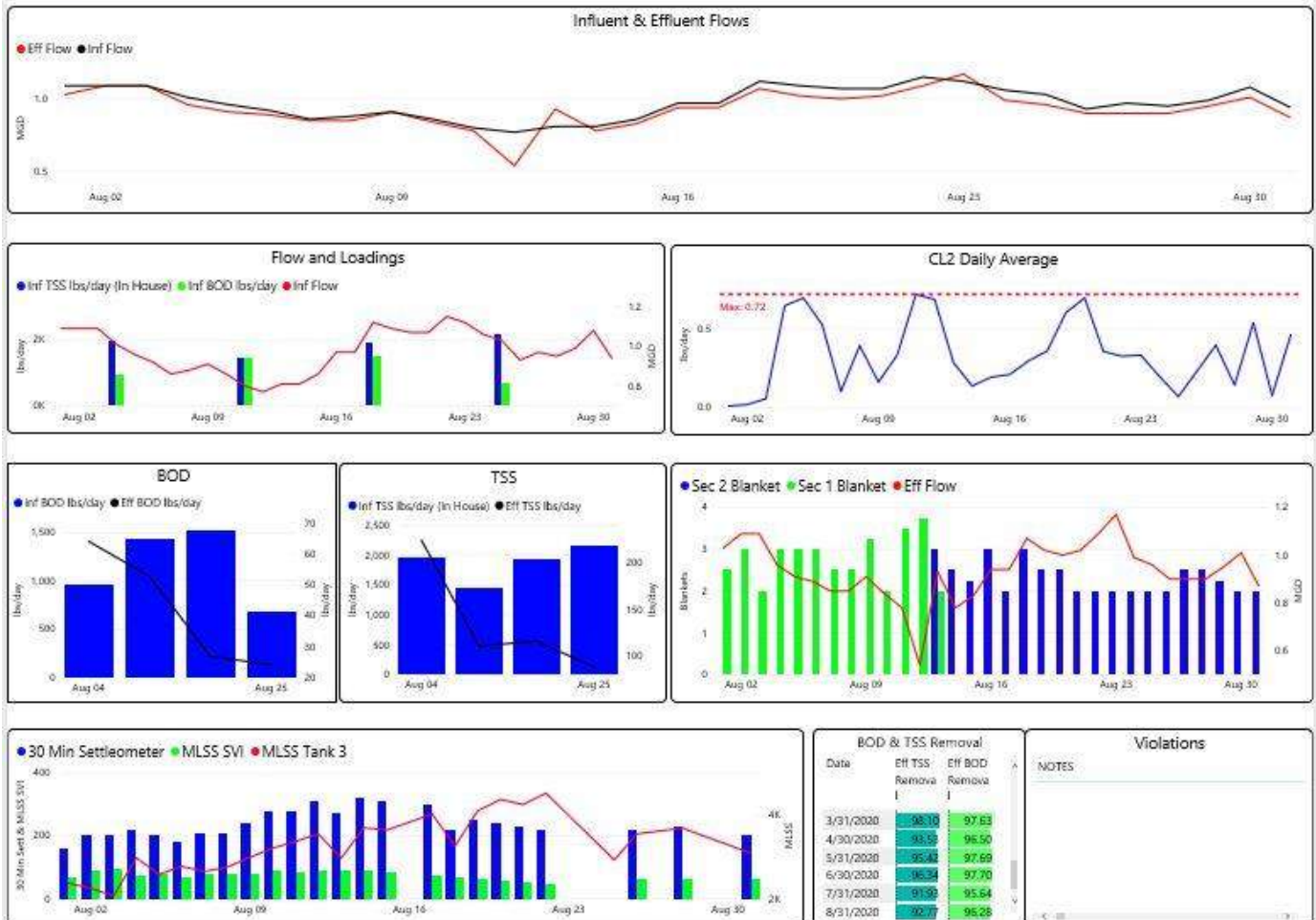
- A Copy of the NPDES report for August 2020 was submitted to the EPA & DEP and then forwarded to the Hull Sewer Dept.
- Whole Effluent Toxicity sampling was conducted in August. [Compliant]
- D Burns from MA DEP contacted on 8/13 to give status update on RAS line failure, and probable odors around facility.
- Lab results for DMR-QA Study 40 submitted to QA provider. Waiting for overall study results from MADEP.



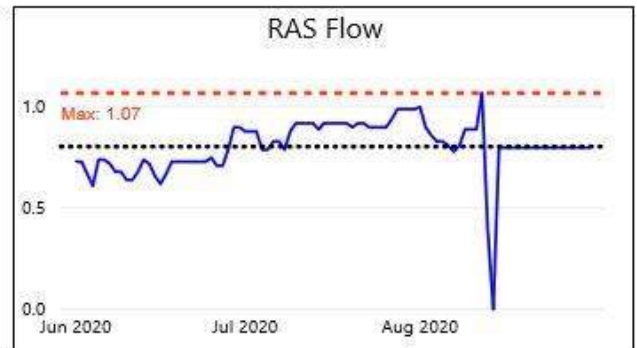
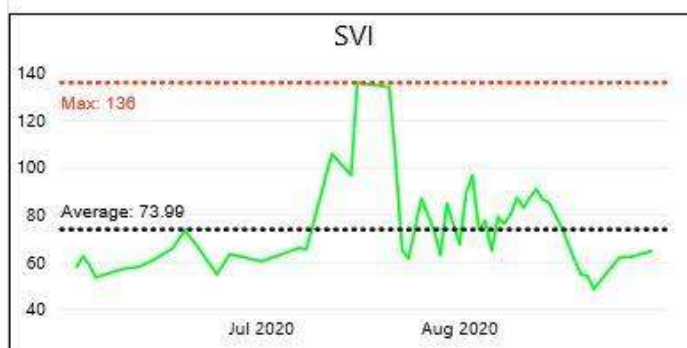
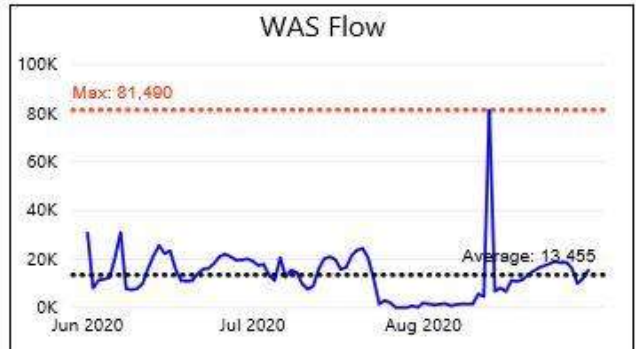
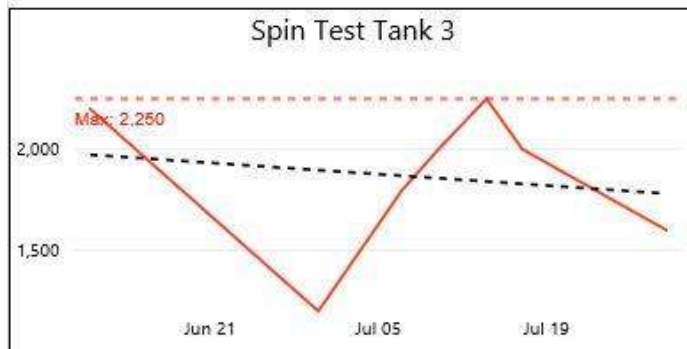
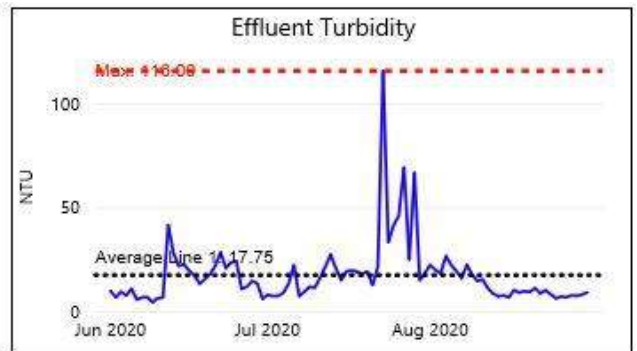
Hull Wastewater Treatment Facility

8/1/2020

8/31/2020



Monthly Process Summary graphs from power BI – August 2020.



Graphs shows trending of secondary processes using Power BI for the 3-month period ending on 8/31/20. The tank solids levels under aeration shows an increase and part of this was the combining of the solids down to the 2 aeration tanks. [aeration tank #4 taken offline] Effluent turbidity started off high in August but improved as the month went along.

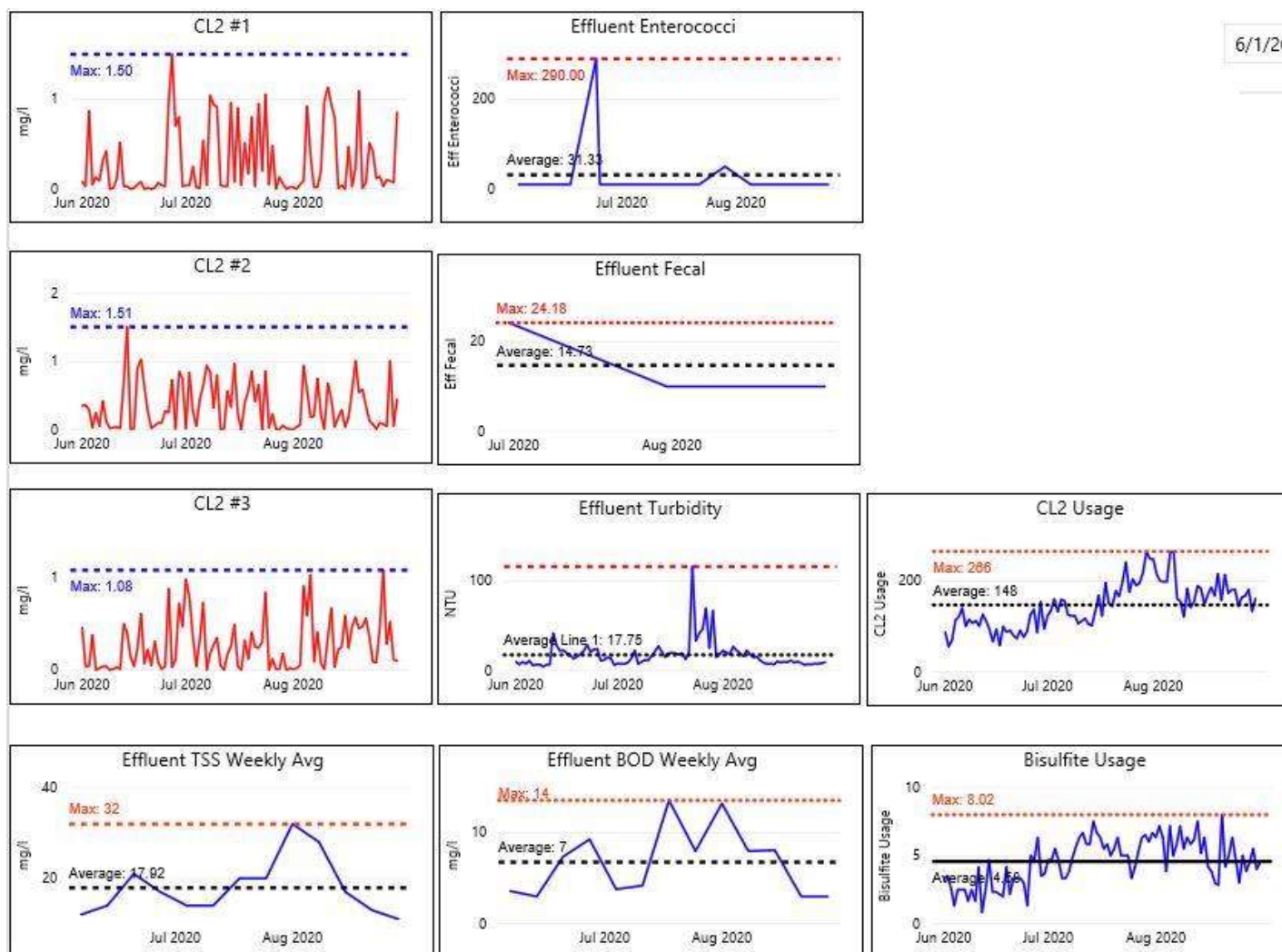
4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY – AUGUST 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	17.3	11.0	28	4	0
Eff TSS	LBS			1152	768	1 X Week	134.7	88.1	224.2		0
% TSS Rem	%		85			1 X Month	92.8				0
Eff BOD	MG/L	50		45	30	1 X Week	5.5	3.0	8.1	4	0
Eff BOD	LBS			1152	768	1 X Week	41.9	24.0	64.1		0
% BOD Rem	%		85			1 X Month	96.3				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.33	0.01	0.72	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	7.1	6.9	7.4	31	0
Enterococci	CFU/100 ML	276			35	1 X Week	10	10	50	5	0

There were **148** effluent samples taken in the month of August.

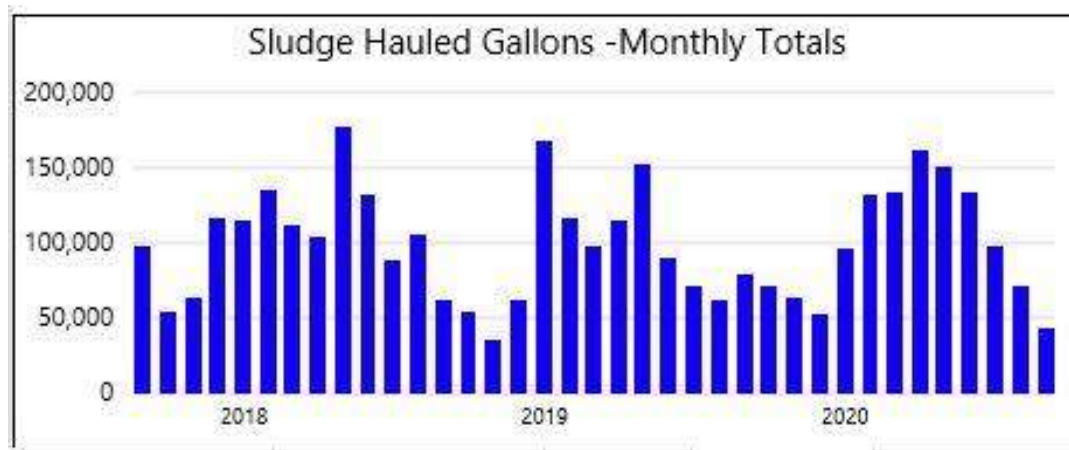


Power BI graphs showing effluent compliance for the last 3 months, chlorine residuals, effluent compliance, & chemical use. Bleach [sodium hypochlorite] & sodium bisulfite use remained significantly high because of the process issues.

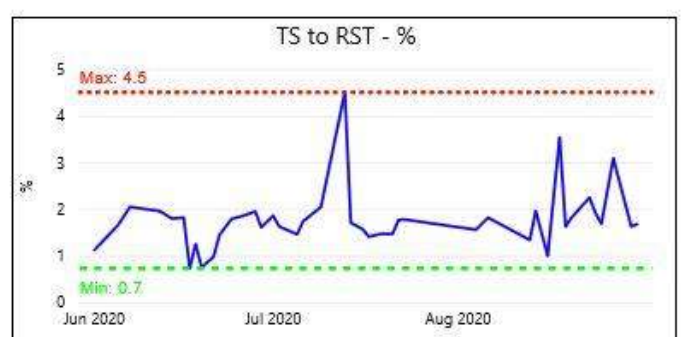
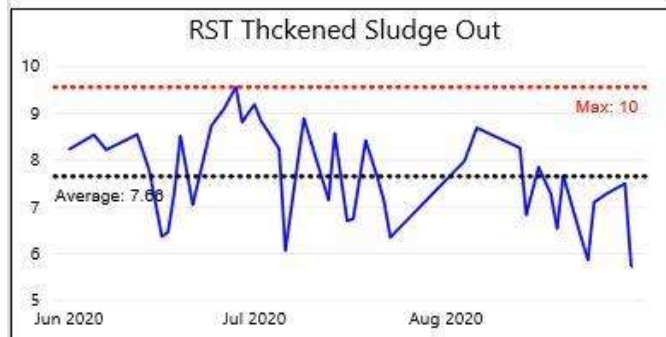
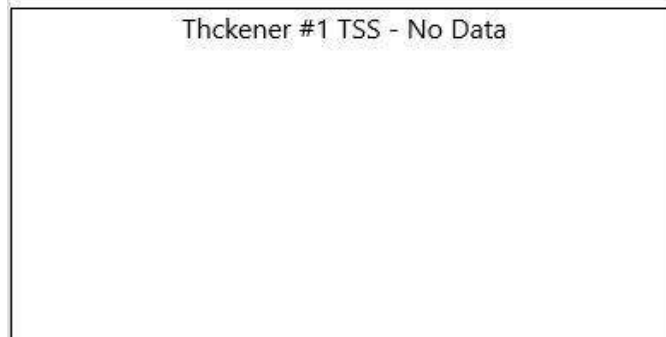
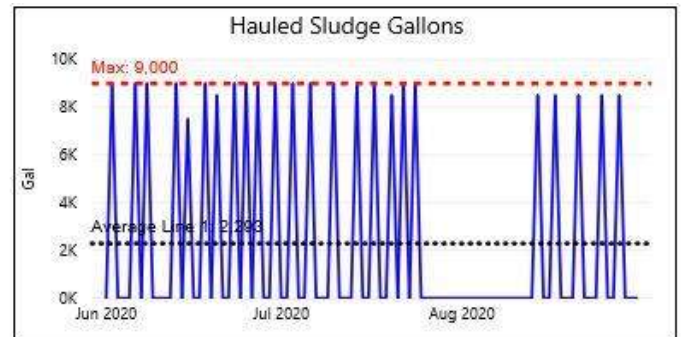
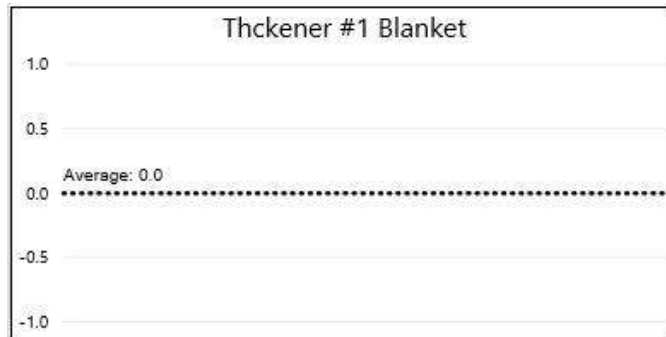
Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
Aug 2018	35.54	62,500
Aug 2019	44.90	78,500
Aug 2020	29.01	42,500

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



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



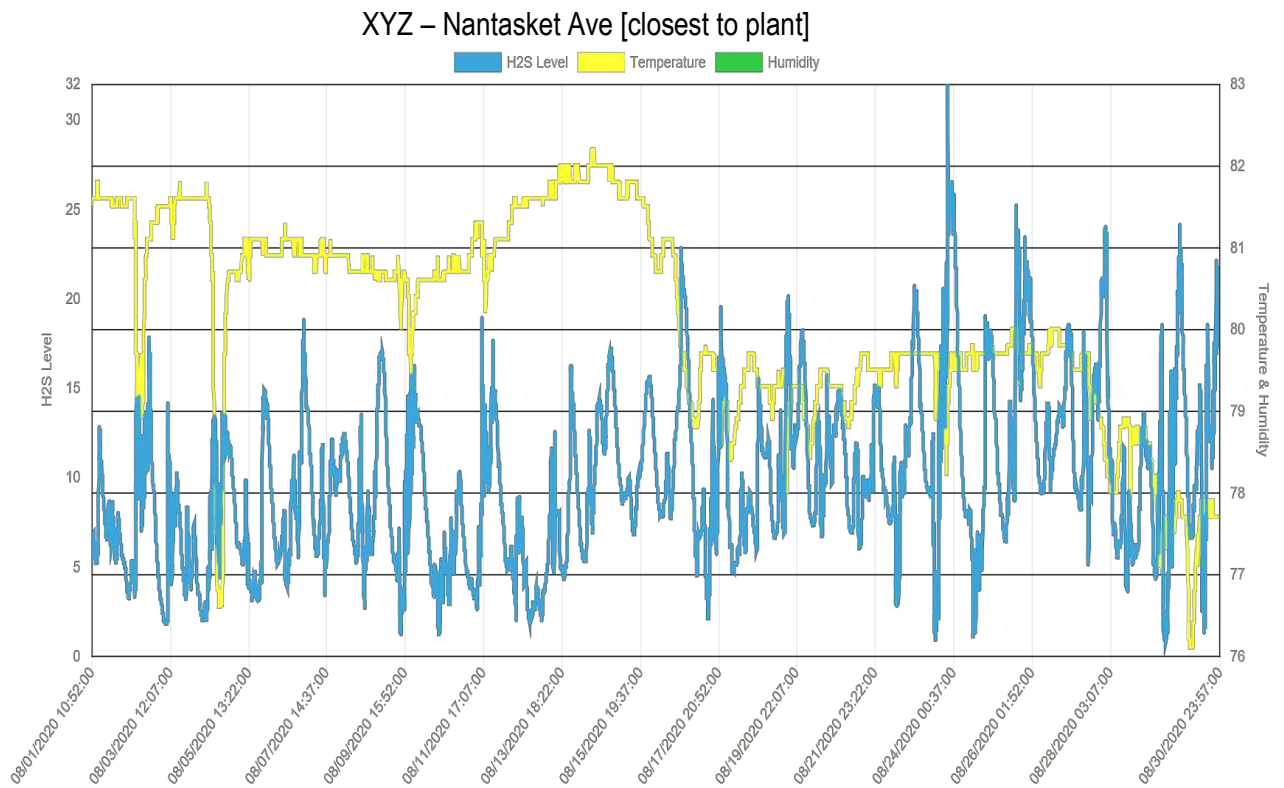
5 ODOR CONTROL

There were several odor complaint calls during the month of August [messages left for the Hull Sewer Dept.] Odor warning letters/notes were distributed on two occasions advising the neighbors of the on-going process issues, and various tank cleaning projects. The floating sludge on the surface of the secondary clarifier was still difficult to manage. Additional spray hoses were kept on dispersing the sludge mat on the surface and to keep odors to a minimum. The gravity thickener and primary clarifier continued to remain offline. These tanks were off line mainly for odors, but also scheduled to be offline for the upcoming headworks and GT projects. 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 and for the chemical feed system adjustments. Continued to work on controls and system dynamics to fine tune chemical feed addition. Adjustments for higher demand periods, such as weekends continue to be targeted for added chemical feed.

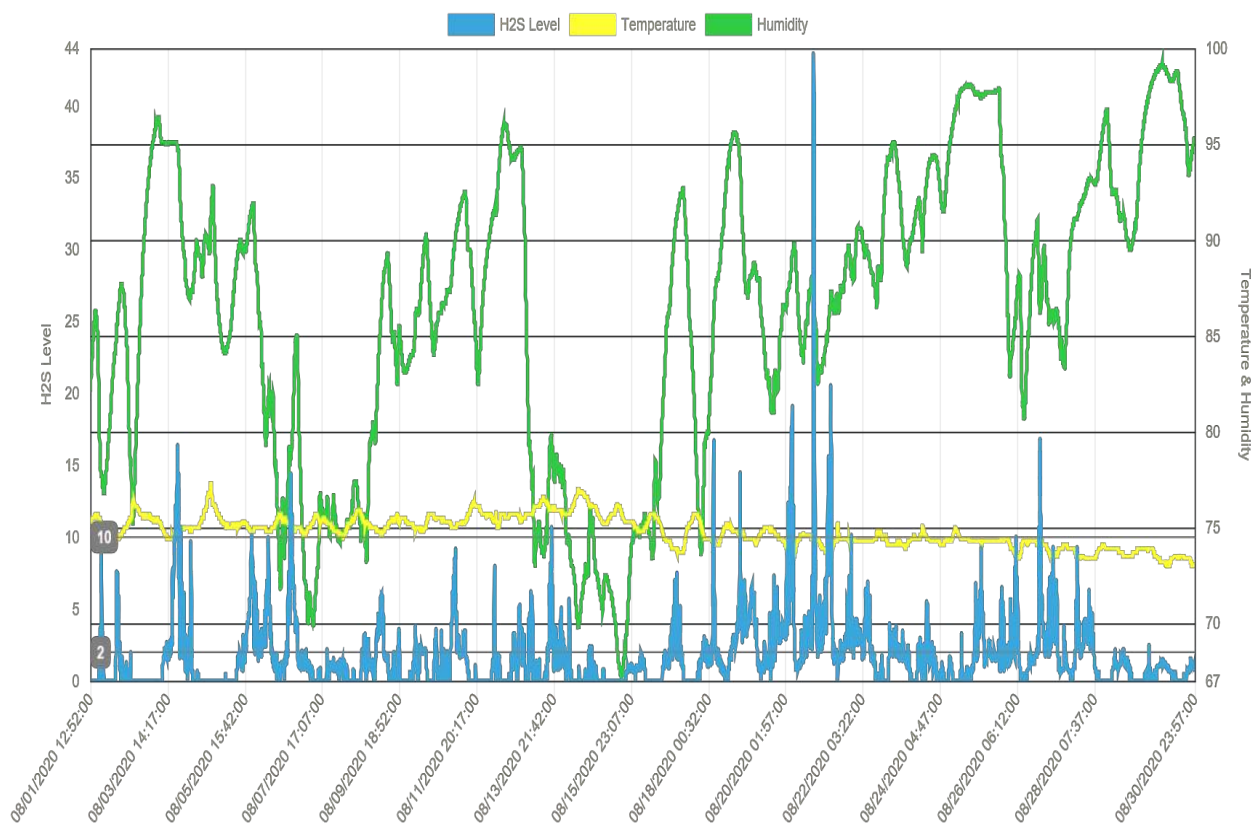
- “In-Pipe” bacteria addition continued with all 24 Microbe Dosing Stations [MDU] operational. The full monthly bacteria unit replacements were completed on 8/20/20. The bi-weekly change outs of the bacteria bottles at three lift stations in the wet wells or manhole just prior to the station. [PS 3, PS 5, PS 9] completed on 8/5/20.
- Mixing systems/aerators all functional at the pump stations, except for pump station #3. [Bioxide addition at PS 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.
- Additional sprayers on secondary clarifier surface for solids break-up and lessen odors. Spray surface with bleach solution to reduce odors.

[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.



The odor logging unit at XYZ is being used to monitor overall H2S levels as close to the plant as possible, except for PS #9 and Spinnaker Island discharged flows. The regular monitoring of data was used to adjust the Bioxide feed, which was in an upward direction.

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



With pump station #3 as the only location where Bioxide is stored, the plan has been to add enough Bioxide into the system to have very low hydrogen sulfide [H₂S] at the end of the force main at Nantasket & Water Street, and with the excess nitrate concentration available to treat the additional H₂S contributed from other parts of the system – PS4, contributions from lines feeding the interceptor, etc. all the way to the plant. The peaks seen on the graph are typically from when PS #4 discharges to the manhole where the PS #3 force main ends. Over the month of August, the PS3 vapor link was reviewed regularly and Bioxide dose increased with emphasis on higher feed rates at specific times when needed.

6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

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

Key items of note are listed below.

- W&C Management coordinated the secondary clarifier gear box change [#1] and subsequent repairs for tank #2 & tank #1. The on-site staff fabricated 4 scraper blades out of available stock we had at the plant for use in the secondary clarifiers, that IPC Lydon was working in. Assist with getting additional materials so that more blades could be made by the contractor. A total of 12 blades were made. The Lydon crew was on site for start-up SC #1, miscellaneous hardware installation, new truss bolt installation, and skimmer supports. Lydon also changed the rake's scraper blades to all face in the same direction, due to lack of draft tube operation for the RAS. Assisted with the Amwell [factory] inspection and start-up of SC #1 drive unit.



Lydon crew readying tank for new equipment



Old gear box removed



New scraper blades installed



Setting new gearbox in place by Lydon

- W&C Management coordinated the gravity thickener tank #1 gear box change and the demolition of the obsolete/corroded/unsafe equipment in gravity thickener tank #2. New England Pump and Valve [NEPV] conducted the work according to plan meeting the expectation in the scope of work. The gear box exchange in tank #1 went well, and the demo of old equipment was completed, and these items were removed from the facility for disposal by NEPV. All safety requirements for confined space and fire watch were met. Pictured below: two series of pictures related to GT #1 and GT #2.



GT #1 – old gear box ready for removal



New gear box being lowered into the tank through roof opening



New gear box in place



GT #2 – collapsed equipment in tank



NEPV removal of old equipment



Empty GT#2 tank

- RAS line failure found on 8/13/20, rot hole in pipe that runs thru RAS box for SC1. This discovery made the dewatering of SC1, nor RAS available. A 6-inch bypass line was set up by the WC staff using an earlier bypass connection that allowed pumping of RAS from the secondary building to aeration tank #1.



- 8/13 - Hoadley vac truck called in to assist with SC1 tank cleaning work, weirs and launder hosed down/vacuumed out, and tank solids were vacuumed out and deposited into SHT2.
- 8/11 - Work in sludge pump room. Remove blank from GT2 and only able to camera/rod up approx. 40 ft. Camera line from SHT1 to pump room, appears to be ok and clear. CSE into SHT1 for tank inspection and equip layout for possible removal at later date.
- Pumping out residual water and cleaning of the GT tanks for contractor prior to work starting. An outside contractor's vac truck was called in to assist.



- On 8/4 - Run plant generator under load for exercise/test and in anticipation for upcoming tropical storm. No issues. Later in the day, the facility had a power loss at approximately 5:30pm. The entire town was without power. BB, JB, DW responded back to the plant for coverage and the LS A generator was started up. The power was restored later in the evening at 9:15pm and all equipment was checked and lift stat A generator shut off.
- 8/12 Work in sludge pump room - sludge valve from GT1 taken apart and cleaned/lubricated and reassembled/tested with actuator ok. Other lines from SHT's and GT's inspected.
- Plant Power bump/brownout at approximately 5:45pm [8/14] - ES responded in and reset the clarifier drive, checked plant/equipment, and blower common alarm reset. Also had PS #9 had a power loss for a second. No station generators ran.
- Corrosion Probe Inc in with Chelsea D [W&C] for SSES of yard drainage and PW manhole by SC #2. Assisted with stopping plant flow to allow confined space entry.
- On 8/18 at 11:02am – plant experienced brief power loss, and caused plant and PS 1, A, 3 & 4 to lose power and go on E-Power for short period. [tree maintenance in Hingham was the cause]; restore/reset all after retransfer - 20-30 min.
- CNaughton Contracting was called in to dig a trench across the driveway, so a 12-inch HDPE pipe could be laid in the trench. Then 6-inch hoses were sleeved through to allow for the bypass RAS to continue and allow vehicle traffic flow in the driveway. Some additional hoses were purchased to complete this pipeline.



- D'Allessandro Corp – replaced two yard hydrants and excavated area by GT's for hydrant replacement & electrical conduit replacement. The plant water yard hydrant in front of SC #1 was also replaced. Pipe core samples were saved from each area for evaluation later. Pictured: [L] removal of failed hydrant; [R] a new hydrant installed and setting of new valve box.



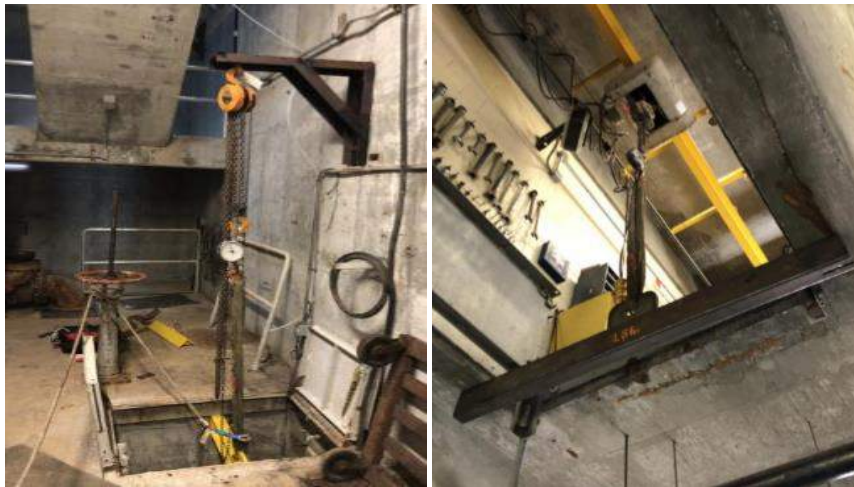
- PS1 - clean both pumps and found debris in check valve for P2; monthly PM's and alarm checks for PS also completed. PS landscaping & interior cleaning at all pump stations. Pictured: [L] clog inside discharge check valve; [R] pump volute/impeller – side view.



- D Street - complete foundation concrete repair and coat exterior concrete. Pictured: Patching of foundation, left & middle, finished coating applied to entire foundation concrete walls, right.



- On 8/24 - Found influent hatch WW#1 had unlatched and had sprung up - damage to piston and support bracket. Repaired, but hatch will need a new latch mechanism.
- The Lightship Group was scheduled in for load testing of the effluent pump room brackets, and several other plant padeyes [hooks] in the facility. Lightship utilized their certified dynamometer, chain fall, straps, and steel beams that spanned the openings and wedged under the concrete lip of the openings. All certified tests were held for 20 minutes. The Lifting Arm Brackets in the Effluent Room were tested to 2500#, held for 20 minutes, and then each was tested to 3000# for 3 minutes. Photos show the testing areas.



- Glenn F on site – multiple days for electrical work - GT1 & blend box area. Install new probe for SHT2 level. Clean up area where junction boxes were for SHT2.



New level probe for SHT2 – junction box



New wiring for GT #1 motor and controls



New conduit and wiring for GT #1

- Aeration tank #3 - Installed new dissolved oxygen probe. Completed air calibration and verified reading with handheld meter.
- Chlorine contact tank cleaning.
- Annual forklift service & safety inspection completed by 3rd party vendor.
- W&C had a noise complaint via email on 8/18 evening from a Nantasket Ave Resident regarding roof equipment making excessive noise. W&C found that both roof exhaust fans needed pulleys and belt replacements. Paul H from O&M support assisted. The scrubber fan was also inspected and lubricated.



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 **09/30/20**.
- D Street Capital upgrade project work completed.

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.
- On-going Coronavirus Covid-19 updates discussed – daily & as needed. 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.
- Worked with O&M health & safety, W&C Engineering, to ensure safety protocols in place for the upcoming engineering projects at the facility.
- Maintaining supply of necessary safety items. – face shields, face masks, hand sanitizer, gloves, etc. Where schedule permits, 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– August – “Hot Work”.
- Monthly staff safety meeting conducted on 8/31/20. Reminders for daily safety briefing topics and discussion points & documentation, Coronavirus updates. Review “Lessons Learned” from July 2020, Near misses and incidents from other company projects.
- Repair walkway board on catwalk for sampler line and bisulfite line [rotted wood]. Install new ramp.
- Reviewed with New England Pump & Valve safety plans and fire watch plan for GT work.

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.
- Regular operational updates and process control discussions, pump station operations, especially with sewer projects going on in the town, safety Covid-19, dig-safes, etc.

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 when more than 4 staff members present.].
- Mass Maritime [MM] internship program on hold due to the Covid-19 emergency. Will possibly consider a candidate in 2021 if safe to do.
- Declan Baggett completed summer work at the facility.
- 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 if needed. Limited due to Covid-19 emergency, and other project commitments.

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 August.

- 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 August [8/5]. Also, additional cleaning in the pump rooms done, with the expected start of concrete work soon.

- Call out to 30 Main street, ES,BK,DB out to investigate. Push Camera used and homeowner advised to contact a plumber.
- Push camera to Marginal Rd to locate sewer laterals for C. Naughton. Assisted with several PS4 shutdowns so that work could be done.
- Five grinder pumps replaced – see utility cloud summary.
- Ongoing visits to 9 Glover Ave until manhole invert repairs made

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 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:

- 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 coordination and data review with the Aquasight team with the primary focus in August on the last phases of the secondary treatment process milestones.
- Helped with the underground piping assessment. Coordination with Chelsea D [W&C] on remaining SSES yard work with CPI and BMC.
- Continued work to on development of purchase order and sub-contract agreement for Truax Corp., for jetting and CCTV work, much to be covered under the upcoming roadway projects per request of the HSD.
- Planning for additional yard hydrant replacements in late September/early October with D'Allessandro Corp.
- Formulated plan for screenings box modifications to capture more rags & debris for the bypass operation. Plans put into motion to make a modification to the coarse screen, making it a finer screen, and swapping the other screen to the influent end of the box

- 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. BB assisted W&C engineers at PS 9 for wet well drawdown tests and flow checks.
- Finalize planning for changes to the bypass screenings box as well as changes in the headworks to maintain return building flows going into the headworks. All flows to be diverted into the aerated grit tank and sump pumps set up to go into the influent wet wells and away from work. Final changes to be made just before bypass goes online. W&C ops also coordinating a headworks cleaning session with the contractor and use of Hoadley's vactor truck planned for September.
- W&C operations reaching out to the Town and T&B regarding final planning to maintain operations during the HVAC project. Main concerns are the control room, lab schedule, and covid-19 planning.
- Working with Town, W&C Engineering, and D&C to look at various needs in the facility: Primary D-box concrete work and valve support stands, PS #4 valve and check valve installation, and Headworks drainage piping from Ops building.
- Received several calls for assistance during the month from CNaughton for requested PS4 shutdowns while various sewer manholes and pipe were repaired/installed. The station would always return to service at the end of the day.
- D Street portable generator hook up equipment installed by Fellows Electric. Pending a test operation of the Onan generator there. An electrical permit was filed with the inspector.
- PS A – Waiting for electrician to install new connections for hook up of the new portable generator at the pump station. Proposal would utilize existing wiring at the pump station.
- Woodard & Curran Funded charitable sponsorships per requests by these organizations: Hull Lifesaving Museum & Hull VFW
- Inspection of SHT1 for possible demolition/removal of obsolete equipment and installation of diffuser piping, so that there would be additional underground sludge storage capacity.
- Continued work with the HSD on procurement needs for Sanitaire aeration parts.

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	\$48,276.87	\$162,278.81	\$101,850.00	\$150,126.87	\$60,428.81
06M-102B	Capital and Major Repairs	\$140,000.00	\$8,735.48	\$131,264.52	\$129,000.00	\$137,735.48	\$2,264.52
06M-103A	Major Sub Contractors	\$178,370.75	\$92,277.70	\$86,093.05	\$144,600.00	\$236,877.70	(\$58,506.95)
blank					\$0.00		
	Asset Management	\$528,926.43	\$149,290.05	\$379,636.38	\$375,450.00	\$524,740.05	\$4,186.38

\$379,636.38

Budget expended	Time Status	
	NOW=	9/30/2020
	Start	5/1/2020
22.9%	41.8%	18.8%
6.2%	41.8%	35.5%
51.7%	41.8%	-10.0%
28.2%	41.8%	13.5%

06S	D Street	\$7,500.00	\$452.85	\$7,047.15	\$0.00	\$452.85	\$7,047.15
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6.0%	41.8%	35.7%
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For Aug 2020 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

\$375,450.00

9/30/2020 10:26

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 euro drives, orig budget \$20,000.
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; work completed. Waiting for report and invoice.
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 Placeholder - 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			Placeholder for 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

6 of 5 9/30/2020

2020_05_01_06M_Checkbook_YTD

06M Planned Costs

For Aug 2020 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

\$375,450.00

9/30/2020 10:26

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	\$1,200.00			Replacements and/or Service - On-Going - As Needed; Purchased three 6-inch hoses for the RAS bypass. [\$1800]; orig buget \$3000
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 facbricate, ? 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				look at increasing size of impellers, after Gunrock work completed; on hold due to area low flows [\$5,000]
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	On Going		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
	Purchase Dehumidifiers for pump stations LS A & PS4, PS5. PSG	Pending		101A	\$4,400.00			for 4 pump stations
		Pending		101A				

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

Maintenance Account - Year 6 - 05_01_20 to 04_30_21

\$375,450.00

9/30/2020 10:26

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	\$2,000.00			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. Shutting down in December 2020. Will 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; nothing further planned for PS 9, since new pump station planned.
2	Sanitaire hardware purchase for aer tk 1	Completed		102B		\$3,054.03		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. Second day planned early October. 3 replacements planned.
2	PS 4 valves, check valves - installation	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]

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

Maintenance Account - Year 6 - 05_01_20 to 04_30_21

\$375,450.00

9/30/2020 10:26

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
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 hook up only; early October planned.
1	Electrical Work	On Going		103A	\$12,000.00			Electricians: Glen Fellows, HiVoltage, other; remv old blowers.lighting, sec bldg elec outlets - \$2,000/month; orig budget \$25,000; adj YTD - funds left; adj 9/30
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				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				Placeholder - As required for various sub-contractors; could be Hoadley, Truax, WindRiver, BMC, or other, collection system & plant; orig budget \$10,000 ; YTD already over \$10k.
1	Collection System - Jetting & CCTV work	On Going		103A	\$10,000.00			Budget - orig \$20,000; reduce it it \$10,000
1	Collection System - Jetting Work & CCTV	On Going		103A	\$35,000.00			up to 35K - roadway proj work related - TBD for contractor [Truax] PO issued.
4 of 51	9/30/2020 Aer tank repairs [labor]	Completed		103A	2020_05_01_06M_Checkbook_YTD			2 days - millwrights - Lydon \$3800

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

\$375,450.00

9/30/2020 10:26

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Pump Station communication - changover to radio - phase 1	Pending		102B	\$75,000.00			Equipment purchase to come from 05M on the Critical Spare List; based on latest quote from Doug Tirrel. \$14,200; Addit hardware cost \$900.00; 4/19 -adj down due to expenses coming in. Final costs to post w/e 4/24
1	Pump Station communication - changover to radio - phase 2	Pending		102B				labor to come from 05M 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.
1	Pump Station communication - changover to radio - phase 3	Pending		102B				
1	Pump Station communication - changover to radio - phase 4	Pending		102B				Electrical wiring and tie into the SCADA system -
2		Pending		103A				
2	Regen Aeration System - Pump Station #5	Pending		103A	\$1,500.00			Orig est \$1,500 -Tie into the SCADA system - Glen Fellows; may wait until after 5/1/20
2	Dehumidifiers at three pstat - install	Pending		103A	\$8,000.00			approx 2K per station - PS A,4, 5 &6
2	SHT1 - demo of equip, air piping & diffuser install/materials	Pending		103A	\$30,000.00			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 - future needs
2	Generators - Load Bank Testing	Pending		103A	\$3,000.00			Look at under 06M - PS#1, PS#3, PS#4, PS#5, PS#6, and PS#9 [\$3,000]
		Pending		103A				
		Pending		103A				
		Pending		103A				
		Pending		103A				
	Highland Power - Servicing the heat exchangers, fuel filters, etc	Pending		103A				Per proposal \$4,550.00
	Front building window repairs	Pending		101A				To be done under Engin project
1	Low pressure sewer valve box insp & mtce	Pending		103A	\$7,500.00			placeholder for contractor O&M inspections and potential repairs; Looking at Rosano-Davis & W&C to investigate
1								
1								
TOTAL					\$375,450.00			

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class	View
8/31/2020 10:50	165 N Truro St	165 N Truro St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Generic WO	View
8/11/2020 9:35	30 N Truro St	30 N Truro St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Generic WO	View
8/27/2020 14:15	47-107	165 NORTH TRURO ST	Hull Parcels	Sutton, Eric	Generic WO	View
8/4/2020 14:32	MH-20863	MH-20863	Sanitary Manhole	Sutton, Eric	Generic WO	View
8/22/2020 9:49	165 N Truro St	165 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Hull - Grinder Pump Maintenance	View
8/23/2020 12:35	200 N Truro St	200 N Truro St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	View
8/11/2020 9:14	42 Wyola Rd	42 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	View
8/5/2020 14:08	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:38	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:44	Bateria UNIT # 8	UNIT # 8	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:51	Bateria UNIT #1	UNIT #1	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:43	Bateria UNIT #10	UNIT #10	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:40	Bateria UNIT #11	UNIT #11	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:36	Bateria UNIT #12	UNIT #12	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:37	Bateria UNIT #13	UNIT #13	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:38	Bateria UNIT #14	UNIT #14	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:39	Bateria UNIT #15	UNIT #15	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:39	Bateria UNIT #16	UNIT #16	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:42	Bateria UNIT #17	UNIT #17	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:42	Bateria UNIT #19	UNIT #19	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:50	Bateria UNIT #2	UNIT #2	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:40	Bateria UNIT #20	UNIT #20	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:36	Bateria UNIT #23	UNIT #23	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:48	Bateria UNIT #24	UNIT #24	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/5/2020 14:09	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:41	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/5/2020 14:09	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:48	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:47	Bateria UNIT #5	UNIT #5	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:47	Bateria UNIT #6	UNIT #6	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:45	Bateria UNIT #7	UNIT #7	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/20/2020 14:35	Bateria UNIT #9	UNIT #9	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	View
8/12/2020 10:02	10-093	59 BEACON RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/6/2020 11:00	14-056	72 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View

8/6/2020 11:05	14-081	27 K STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/17/2020 14:34	15-075	59 J STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/12/2020 9:04	17-089-A	699 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/6/2020 13:37	17-176	65 G STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/12/2020 8:42	19-100	640 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/6/2020 11:28	21-071	115 MANOMET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/6/2020 11:38	21-127	587 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/12/2020 8:57	23-030	188 KINGSLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/12/2020 8:55	23-031	186 KINGSLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/13/2020 11:11	23-056	4 LINCOLN ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/10/2020 10:58	23-061	0 LINCOLN ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/13/2020 9:31	26-078	25 REVERE ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/12/2020 9:18	30-066	86 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/10/2020 10:22	31-003	36 CLIFTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/13/2020 10:39	39-015	21 ROCKLAND HOUSE RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/6/2020 12:22	41-011	5 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/18/2020 11:41	45-108	68 SALISBURY ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
8/28/2020 9:57	06-059	30 MAIN ST	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
8/12/2020 11:40	19-140	137 MANOMET AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
8/4/2020 14:24	MH-20316	MH-20316	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	View
8/11/2020 10:58	MH-20712-1	MH-20712-1	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	View



Maintenance History Report

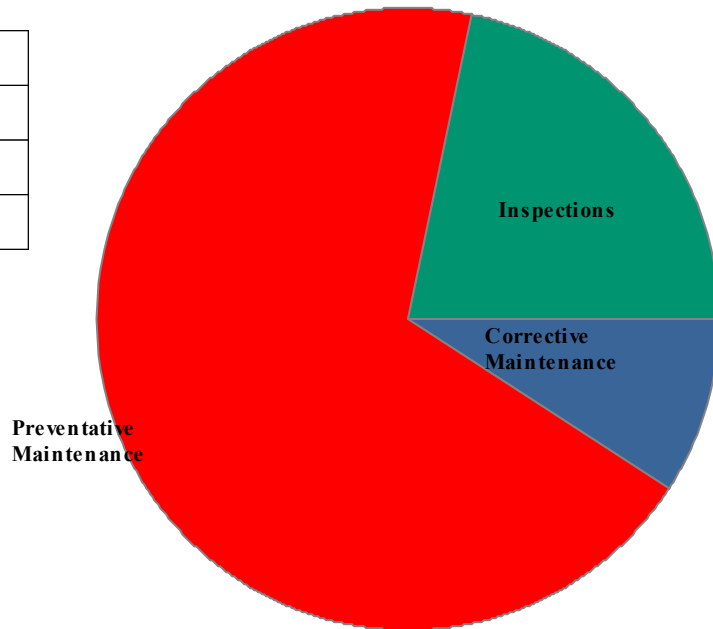
Hull Wastewater

Start Date: 8/1/2020

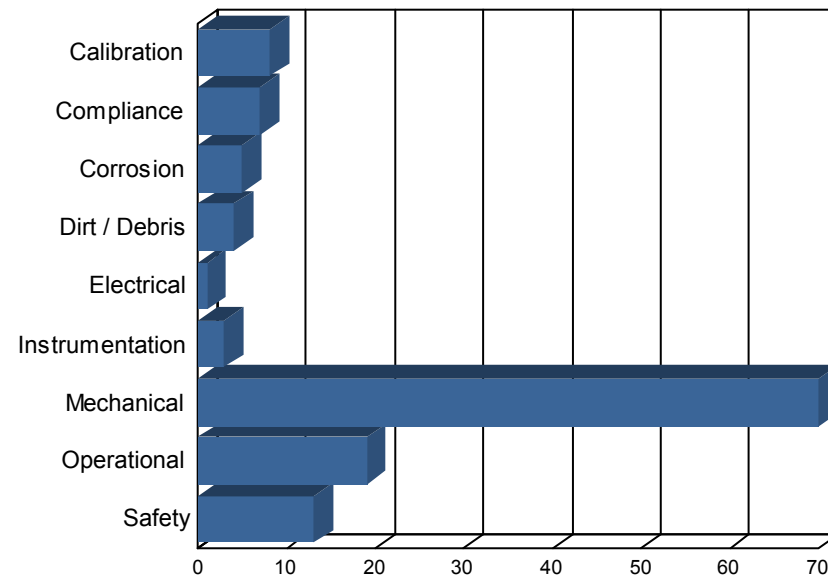
End Date: 8/31/2020

Work Order History By Type

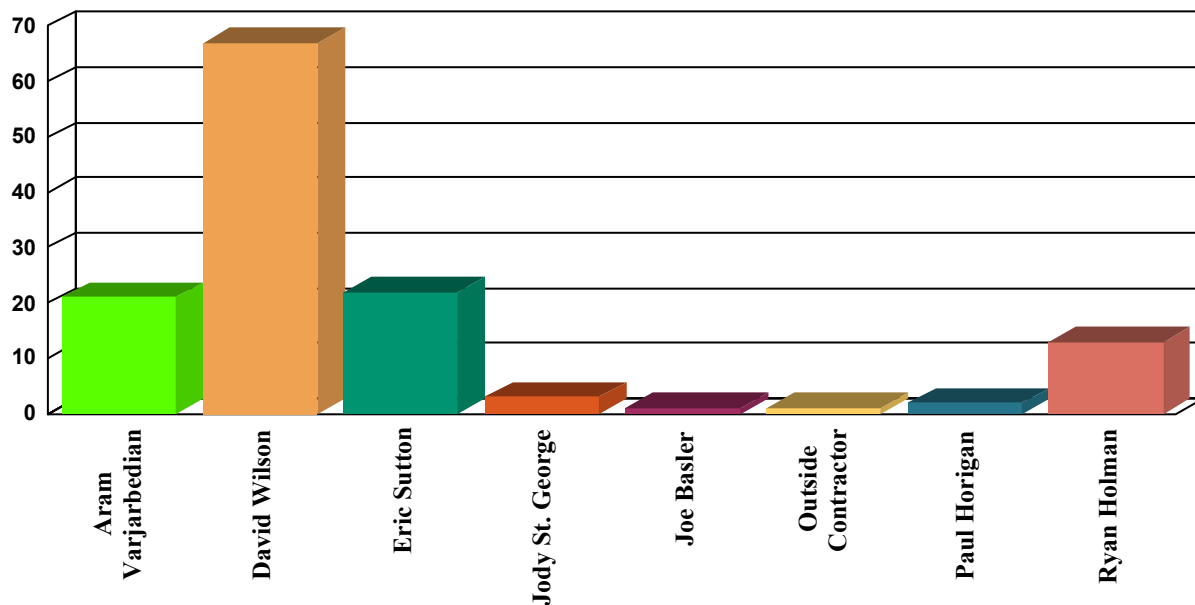
Corrective Maintenance	12
Inspections	28
Preventative Maintenance	90
Total Work Orders	130



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	21	11
David Wilson	67	32
Eric Sutton	22	9
Jody St. George	3	5
Joe Basler	1	1
Outside Contractor	1	2
Paul Horigan	2	4
Ryan Holman	13	16
Totals	130	79

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/4/20	12524	Secondary Clarifiers	Fabricate 2 rake arm scrapers	Completed	Jody St. George	8/4/20	Completed
8/4/20	12523	Buildings	Make cover for inf manhole	Completed	Jody St. George	8/4/20	Completed
8/5/20	12525	PS 1 Pump 2	Low output	LOTO of equipment. Removed cleanouts and inspected impeller. No debris found. Removed cover from check valve. Found rag ball on both sides of flapper. Removed debris and verified seal. Reassembled and returned to service. Pump output was 95 gpm and is now 320 gpm.	David Wilson	8/6/20	Completed
8/10/20	12526	CL2 Room	Repair/replace line and valve	Completed	Jody St. George	8/10/20	Completed
8/13/20	12531	RAS System	RAS force main failure	RAS line failure, rot hole in pipe that runs thru RAS box for SC1. No Dewatering of SC1, nor RAS available. Set up 6 inch bypass from sec building to aer tank 1. Bb, JB, ES, DW, DB.	Aram Varjarbedian	8/13/20	Completed
8/14/20	12529	Sludge Storage Tank 2	Level probe not working	Found unit full of water and corroded terminals. Repaired and working.	Outside Contractor	8/14/20	Completed
8/14/20	12530	30 - WW Treatment Plant - General	Power brown out	Reset blower common alarm, secondary #2, checked hypo, station, scada	Eric Sutton	8/14/20	Completed
8/19/20	12532	Sump Pump	Sump pump in Sludge Transfer Room not functioning	Disconnected the sump pumps power source and piping in order to inspect the impeller. Removed ball of rags from the impeller and a large plastic bag from the sump.	Ryan Holman	8/19/20	Completed
8/20/20	12533	Roof - Operations Building	Blower room exhaust #1	Replaced exhaust belt and shives. Also greased pillow blocks and motor. Laser aligned belt.	Paul Horigan	8/20/20	Completed
8/20/20	12534	Roof - Operations Building	Blower room exhaust #2	Replaced exhaust belt and shives. Also greased pillow blocks and laser aligned the belt.	Ryan Holman	8/20/20	Completed
8/24/20	12535	PS 9 Pump 2	Pump not pumping	DW saw pump not pumping on trends. Chk at PS on 8/23. AV & DW inspect on 8/24, found VFD was tripped. Reset and verify pumping and run amps. Ok.	Aram Varjarbedian	8/24/20	Completed
8/24/20	12536	Influent Wet Well 2	Hinge and limiting bars broken	Disassembled hinge and limiting bars. Drilled out rivits and hinge. Installed new hardware. Limiting straps missing or broken hardware removed. Welded in new upper posts and installed with new hardware. Facing open hatch, the left side shock was over extended and binds. Requires replacement. Tried to adjust latch but spring does not push out enough to catch. Requires replacement.	David Wilson	8/24/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/2/20	12209	AST- Above Ground Storage tank for diesel fuel	Monthly Inspections of Tanks	Done, forms filed in folder	Aram Varjarbedian	8/1/20	Completed
8/2/20	12024	Universal waste area	Universal Waste Storage Area Inspection	Completed for August	Aram Varjarbedian	7/14/20	Completed
8/2/20	12023	Waste Oil Storage	Waste Oil Area Inspection	Done for August	Aram Varjarbedian	7/14/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/2/20	12038	AST- Above Ground Storage tank for diesel fuel	Monthly Inspections of Tanks	Done for August	Aram Varjarbedian	7/1/20	Completed
8/3/20	12179	Truck 1 - 2010 Dodge Ram 1500	Monthly vehicle inspection on do-Forms		David Wilson	8/3/20	Completed
8/3/20	12190	Truck 2 - 2009 Chevy 2500 HD	Monthly vehicle inspection on do-Forms		David Wilson	8/3/20	Completed
8/5/20	12131	PS 1	PS #1 Inspection - Monthly	Inspected wet well, fire extinguisher, pump seals, hubs and coupling. Tested sump pump and high level alarm.	David Wilson	8/6/20	Completed
8/5/20	12143	PS A	PS #A Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm. Wet well requires cleaning.	David Wilson	8/6/20	Completed
8/5/20	12132	PS 3	PS #3 Inspection - Monthly	Inspected wet well, fire extinguisher, hubs and coupling. Tested sump pump and high level alarm. All levels swept and trash taken back to plant.	David Wilson	8/6/20	Completed
8/5/20	12135	PS 4	PS #4 Inspection - Monthly	Inspected wet well, fire extinguisher, hubs and couplings. Tested sump pump and high level alarm. Cleaned all levels and brought trash back to plant. Wet well needs to be cleaned.	David Wilson	8/6/20	Completed
8/6/20	12140	PS 9	PS #9 Inspection - Monthly	Inspected wet well, fire extinguisher, hubs and couplings. Tested sump pump and high level alarm. Two lightbulbs replaced on the lower level. Cleaned all levels and brought garbage back to plant.	David Wilson	8/6/20	Completed
8/6/20	12139	PS 6	PS #6 Inspection - Monthly	Inspected wet well, fire extinguisher hubs and couplings. Tested high level alarm and sump pump. Wet well should be cleaned.	David Wilson	8/6/20	Completed
8/6/20	12075	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	8/2/20	Completed
8/6/20	12136	PS 5	PS #5 Inspection - Monthly	Inspected wet well, fire extinguisher, hubs and couplings. Tested sump pump and high level alarm. Some fat balls in wet well.	David Wilson	8/6/20	Completed
8/11/20	12528	Gravity Thickener 1	Inspect line from GT1 to Sludge Transfer room.	JS/DW isolated lone and removed blanking plate. Drained line and flushed with water. Was able to camera line up to 40 feet from sludge transfer room. Blockage in line. Will require jetting.	David Wilson	8/11/20	Completed
8/11/20	12527	Sludge Storage Tank 1	Inspect line from tank to sludge tranfser room.	JS/DW Isolated line from tank to sludge transfer room. Removed spool piece connected to RST feex pump 1. Flushed line with water. Recorded video of inside of line. Reassembled spool piece and returned RST pump back to service.	David Wilson	8/11/20	Completed
8/15/20	12076	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	8/9/20	Completed
8/18/20	12077	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	8/16/20	Completed
8/19/20	12029	Truck 3 - 2015 Chevy 3500 HD	Monthly vehicle inspection on do-Forms		Eric Sutton	7/6/20	Completed
8/19/20	12199	Truck 3 - 2015 Chevy 3500 HD	Monthly vehicle inspection on do-Forms		Eric Sutton	8/3/20	Completed
8/25/20	12078	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower throughout the plant.	Ryan Holman	8/23/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/25/20	12176	Fire Extinguishers	WWTF Fire Extinguisher Inspections - Monthly	Inspected all fire extinguishers located in the plant.	Ryan Holman	8/3/20	Completed
8/25/20	12080	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	Inspected and tested all emergency lighting throughout the plant.	Ryan Holman	8/12/20	Completed
8/25/20	12537	Influent Pump 2	Unusual noises radiating from top half of pump assembly.	While completing monthly hub and coupling inspections, pump 2 was made lead. While running, pump was making an unusual noise. LOTO of equipment and inspected hubs, coupling and tried to feel for side movement from shaft. Hubs show wear and requires replacement. Could not identify source of noise.	David Wilson	8/25/20	In Process
8/30/20	12200	Truck 4 - 2015 Nissan Frontier	Monthly vehicle inspection on do-Forms	Done. No issues. Mileage. 107642	Aram Varjarbedian	8/3/20	Completed
8/30/20	12192	Universal waste area	Universal Waste Storage Area Inspection		Aram Varjarbedian	8/11/20	Completed
8/30/20	12191	Waste Oil Storage	Waste Oil Area Inspection	Done	Aram Varjarbedian	8/11/20	Completed
8/30/20	11894	AST- Above Ground Storage tank for diesel fuel	Monthly Inspections of Tanks	Completed for Aug.	Aram Varjarbedian	6/1/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/1/20	11936	Influent Sluice Isolation Gate	Weekly operate through full range	Ran the gate from SCADA through its full range of motion.	Ryan Holman	7/22/20	Completed
8/1/20	12034	High level floats	Weekly High Float Alarm test	Completed RH and ES	Ryan Holman	7/26/20	Completed
8/2/20	12046	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Sec clarifier 1 - add half quart	David Wilson	7/26/20	Completed
8/2/20	12027	Chlorine probe ATI	Weekly calibration	Cal ok, slope 124; no issue.	Aram Varjarbedian	7/20/20	Completed
8/2/20	12216	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set fluid level in gearbox. 1qt flowable grease added.	David Wilson	8/2/20	Completed
8/2/20	11937	Influent Sluice Isolation Gate	Weekly operate through full range	Exercise through scada. No issues	Aram Varjarbedian	7/29/20	Completed
8/2/20	12198	Chlorine probe ATI	ATI, change membrane	Just done July 28, nothing more needed.	Aram Varjarbedian	8/1/20	Completed
8/2/20	12197	Chlorine probe ATI	Change electrolyte	Just done on July 28th, new probe install	Aram Varjarbedian	8/1/20	Completed
8/3/20	12184	PS Trailer Mounted Generator	Generator - Monthly Load Test	Inspected all fluid levels and brought up to operating temp. No issues found.	David Wilson	8/2/20	Completed
8/3/20	12087	Generator #1- Emergency Kohler 750	Generator - Monthly Load Test	Inspected all fluid levels and recorded all run data. Completed run and power transfer doForm.	David Wilson	8/2/20	Completed
8/3/20	12210	Generators "All Pump Station"	Generator - Monthly Load Test	Completed monthly load tests at all pump stations. No issues found.	David Wilson	8/2/20	Completed
8/3/20	12025	Confined Space 4 Gas Meter	monthly calibration		David Wilson	7/30/20	Completed
8/5/20	12074	Portable Generator - Honda	Portable Generator Inspection - Monthly		David Wilson	8/5/20	Completed
8/5/20	12178	GODWIN Portable Pump	Test Run Godwin Pump-Monthly		David Wilson	8/5/20	Completed
8/6/20	12194	Chlorine probe ATI	Weekly calibration	Cal against lab results	Aram Varjarbedian	8/3/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/6/20	12107	Secondary Clarifier 1	Clean Launder Screens - Quarterly	No launder screens installed.	David Wilson	8/3/20	Completed
8/6/20	12108	Secondary Clarifier 2	Clean Launder Screens - Quarterly	Clarifier is offline and screen is clean.	David Wilson	8/3/20	Completed
8/7/20	12201	High level floats	Weekly High Float Alarm test		Ryan Holman	8/2/20	Completed
8/10/20	12083	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		David Wilson	8/10/20	Completed
8/10/20	12019	Meter #4 - 4 Gas	4 Gas Meter #4 Calibration - Monthly	Zeroed and tested calibration. No issues found.	David Wilson	7/30/20	Completed
8/10/20	12018	Meter #3 - 4 Gas	4 Gas Meter #3 Calibration - Monthly	Zeroed and tested calibration. No issues found.	David Wilson	7/30/20	Completed
8/10/20	12020	Meter #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Out of service	David Wilson	7/30/20	Completed
8/10/20	12021	Meter #6 - 4 Gas	4 Gas Meter #6 Calibration - Monthly	Out of service.	David Wilson	7/30/20	Completed
8/10/20	12217	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected gearbox fluid level. Added .5 qt of flowable grease.	David Wilson	8/9/20	Completed
8/11/20	12088	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Checked all fluid levels and brought up to operating temp. Recorded all run data.	David Wilson	8/10/20	Completed
8/11/20	12177	Meters - 4 Gas Confined Space #1	4 gas meter calibration - monthly	Zeroed and tested calibration. No issues found.	David Wilson	8/1/20	Completed
8/11/20	12206	Meters - 4 Gas Confined Space #2	4 gas meter calibration - monthly	Zeroed and tested calibration. No issues found.	David Wilson	8/1/20	Completed
8/11/20	12115	RAS Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12118	RAS Pump 3	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12124	Primary Sludge Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12120	RST Feed Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12212	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	8/10/20	Completed
8/11/20	12180	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	8/10/20	Completed
8/11/20	12128	Sludge Transfer Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12127	Sludge Transfer Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12121	RST Feed Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/11/20	12125	Primary Sludge Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found. Returned to service.	David Wilson	8/5/20	Completed
8/14/20	12114	RAS Pump 1	Monthly Check Pump Couplings	Inspected hubs and coupling. No issues found.	David Wilson	8/5/20	Completed
8/14/20	12218	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected oil levels in SC2. Replaced fluids in new amwell gear sets.	David Wilson	8/16/20	Completed
8/19/20	12112	Wet Scrubber Fan	Scrubber Exhaust Fan PM - Monthly	Paul H, Ryan, Eric - inspect, remove relif plugs and grease motor, was noisy. Grease fan and Insp belts	Aram Varjarbedian	8/12/20	Completed
8/19/20	12146	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		Eric Sutton	8/12/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/19/20	12150	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		Eric Sutton	8/12/20	Completed
8/19/20	12156	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		Eric Sutton	8/12/20	Completed
8/19/20	12160	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		Eric Sutton	8/12/20	Completed
8/19/20	12170	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		Eric Sutton	8/12/20	Completed
8/19/20	12166	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		Eric Sutton	8/12/20	Completed
8/19/20	12213	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	8/17/20	Completed
8/19/20	12181	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	8/17/20	Completed
8/19/20	12147	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		Eric Sutton	8/19/20	Completed
8/19/20	12151	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		Eric Sutton	8/19/20	Completed
8/19/20	12157	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		Eric Sutton	8/19/20	Completed
8/19/20	12161	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		Eric Sutton	8/19/20	Completed
8/19/20	12171	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		Eric Sutton	8/19/20	Completed
8/19/20	12167	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		Eric Sutton	8/19/20	Completed
8/20/20	12094	Influent Sluice Isolation Gate	Weekly operate through full range	Completed on 8/20	Aram Varjarbedian	8/12/20	Completed
8/20/20	12095	Influent Sluice Isolation Gate	Weekly operate through full range	Exercised ok, no issues	Aram Varjarbedian	8/19/20	Completed
8/20/20	11954	Wet Scrubber Fan	Scrubber Exhaust Fan PM - Monthly	With Ryan and Eric, completed on 8/19. Flush out motor bearing grease, and unit quieted down.	Paul Horigan	7/8/20	Completed
8/20/20	12093	Influent Sluice Isolation Gate	Weekly operate through full range	Done on 8/20	Aram Varjarbedian	8/5/20	Completed
8/20/20	12089	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Ran, no issues	Aram Varjarbedian	8/17/20	Completed
8/22/20	12203	High level floats	Weekly High Float Alarm test	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	8/16/20	Completed
8/22/20	12202	High level floats	Weekly High Float Alarm test	With Ryan H.	Joe Basler	8/9/20	Completed
8/25/20	12123	Primary Sludge Pump 1	Vaughan Centrifugal pump - Semi Annual	Greased motor bearings, inspected oil level and exercised all valves.	David Wilson	8/20/20	Completed
8/25/20	12126	Primary Sludge Pump 2	Vaughan Centrifugal pump - Semi Annual	Greased motor bearings, inspected oil level and exercised all valves.	David Wilson	8/20/20	Completed
8/25/20	12122	RST Feed Pump 2	Vaughan Centrifugal pump - Semi Annual	Greased motor bearings, inspected oil level and exercised all valves.	David Wilson	8/20/20	Completed
8/25/20	12097	Mechanical Screen & Washpress System	Monthly Maintenance	LOTO of equipment. Cleaned all scrapers. Inspected drive systems. No issues found.	David Wilson	8/3/20	Completed
8/25/20	12119	RST Feed Pump 1	Vaughan Centrifugal pump - Semi Annual	Greased motor bearings, inspected oil level and exercised all valves.	David Wilson	8/20/20	Completed
8/25/20	12214	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	8/24/20	Completed
8/25/20	12182	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	8/24/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
8/25/20	12219	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected fluid level in SC2. No issues found.	David Wilson	8/23/20	Completed
8/25/20	12211	Generators "All Pump Station"	Generator - Annual PM		Eric Sutton	8/15/20	Completed
8/25/20	12174	Plant Water Pump 1	Monthly Check Pump Couplings	Direct drive. No hubs or coupling.	David Wilson	8/5/20	Completed
8/25/20	12175	Plant Water Pump 2	Monthly Check Pump Couplings	Direct drive. No hubs or coupling.	David Wilson	8/5/20	Completed
8/25/20	12207	Recirculation pump #1	Monthly Check Pump Couplings	Direct drive. No hubs or coupling.	David Wilson	8/5/20	Completed
8/25/20	12208	Recirculation Pump #2	Monthly Check Pump Couplings	Direct drive. No hubs or coupling.	David Wilson	8/5/20	Completed
8/25/20	12098	Influent Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling.	David Wilson	8/5/20	Completed
8/25/20	12099	Influent Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Hubs due to be replaced. Odd noise from pump assembly when in service.	David Wilson	8/5/20	Completed
8/25/20	12100	Influent Pump 3	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No evidence of wear.	David Wilson	8/5/20	Completed
8/25/20	12101	Influent Pump 4	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Some wear but overall good.	David Wilson	8/5/20	Completed
8/25/20	12102	Influent Pump 5	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Slight wear but overall good.	David Wilson	8/5/20	Completed
8/25/20	12113	RAS Pump 1	RAS Pump #1 PM - Quarterly	Greased all bearings. Exercised all valves. Inspected hubs, seals and coupling. Pump seal allowing cooling water to leak by.	David Wilson	8/5/20	Completed
8/25/20	12116	RAS Pump 2	RAS Pump #2 PM - Quarterly	Greased all bearings. Exercised all valves. Inspected seals, hubs, and coupling. Pump seal leaking cooling water.	David Wilson	8/5/20	Completed
8/25/20	12117	RAS Pump 3	RAS Pump #3 PM - Quarterly	Greased all bearings. Exercised all valves. Inspected seals, hubs and coupling. Motor seal leaking bearing grease.	David Wilson	8/5/20	Completed
8/28/20	12204	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms throughout the plant.	Ryan Holman	8/23/20	Completed
8/30/20	12096	Influent Sluice Isolation Gate	Weekly operate through full range	No issues	Aram Varjarbedian	8/26/20	Completed
8/30/20	12220	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected fluid levels in SC2 gearbox. Checked for condensation.	David Wilson	8/30/20	Completed
8/30/20	12104	Aeration Blower 1	Aeration Blower #1 Air Filter Inspection - monthly	Inspected and replaced air filter with cleaned element.	David Wilson	8/25/20	Completed
8/30/20	12105	Aeration Blower 2	Aeration Blower #2 Air Filter Inspection - Monthly	Inspected and replaced air filter with cleaned element.	David Wilson	8/27/20	Completed
8/30/20	12109	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly	Cleaned and inspected probe. Calibrated against comparator. Installed schedule 80 reducer.	David Wilson	8/4/20	Completed
8/30/20	12110	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly	Installed new probe. Calibrated against comparator.	David Wilson	8/4/20	Completed
8/31/20	12091	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Generator run completed. No one available to record run data. Strainer basket cleaned.	David Wilson	8/31/20	Completed