



HULL WATER POLLUTION CONTROL FACILITY

February
2020

MONTHLY OPERATING REPORT

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Executive Summary2

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COMMITMENT & INTEGRITY DRIVE RESULTS



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Cover pictures: [top] D’Alessandro Corp at Pump Station #5 [Draper Ave]- installing new force main bypass valve and piping.
[bottom] D Street Stormwater Pump Station – new 10” axial flow pump discharging flow out the back of the building.

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 February 2020.

- No lost-time incidents for the month of February
- There were 140 effluent samples taken in the month of February. Please see page (8) for details.
- There were no effluent permit violations.
- Plant average flows continued to be low in February. The average daily flow for the month was 1.32MGD. A total of 3.57 inches of rainfall was recorded.
- The plant and collection system odors were low [expected for this time of year]. The Bioxide system was not service. Continued to work on odor control planning for 2020 with Evoqua, for upgraded controls and better monitoring of chemical feed system.
- Asset Management Accounts checkbook for is attached, and the updated planned expenses sheets also attached [latest update 3/11/20]. A review of the account status between W&C and Hull Sewer Dept. is an on-going process.
- There were no grinder pump call outs during the month of February.
- O&M staff continues to work with the Hull Sewer Department [HSD] helping & tracking of some of the equipment off the original "Critical Equipment List". Review of items on original list.
- W&C O&M continued to work with Engineering on multiple projects including Facility Planning & Pump Stations, Conditions Assessments, SSES yard piping, effluent room isolation issues, headworks and PS Structural, Gunrock/Atlantic Ave and Nantasket Ave lining projects.
- The annual roof inspection for building roofs was completed on 2/21/20.
- W&C operations management, engineering, and HSD met on capital budgets, priority needs, and facility planning collectively to forecast project planning on 2/05/20.
- Assisted with pump station shut down at PS-1 and oversight for Aqualine Utility to core a new gravity pipe into the wet well on 02/21/20.
- Pump Station #5 construction for new force main isolation valve and 8-inch bypass connections, this was an in-house design by Bill & Brian with construction provided by D'Allessandro Corp.
- Pump Station #5 new electrical service done as an emergency repair after the service was impacted during force main construction.
- D-Street installation of new axial flow pumps and associated VFD's and piping completed. In-house design by Aram in conjunction with Industrial Pump.
- SHT#2 cleaning out in conjunction with Wind River Confined Space and vector truck.
- All Pump station wet wells inspected. PS 4 and PS 5 wet wells cleaned.
- Grit Pump Room cleaning work included CSE and Hoadley vector truck work.
- RST improvements and new sludge pump hopper installed.

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

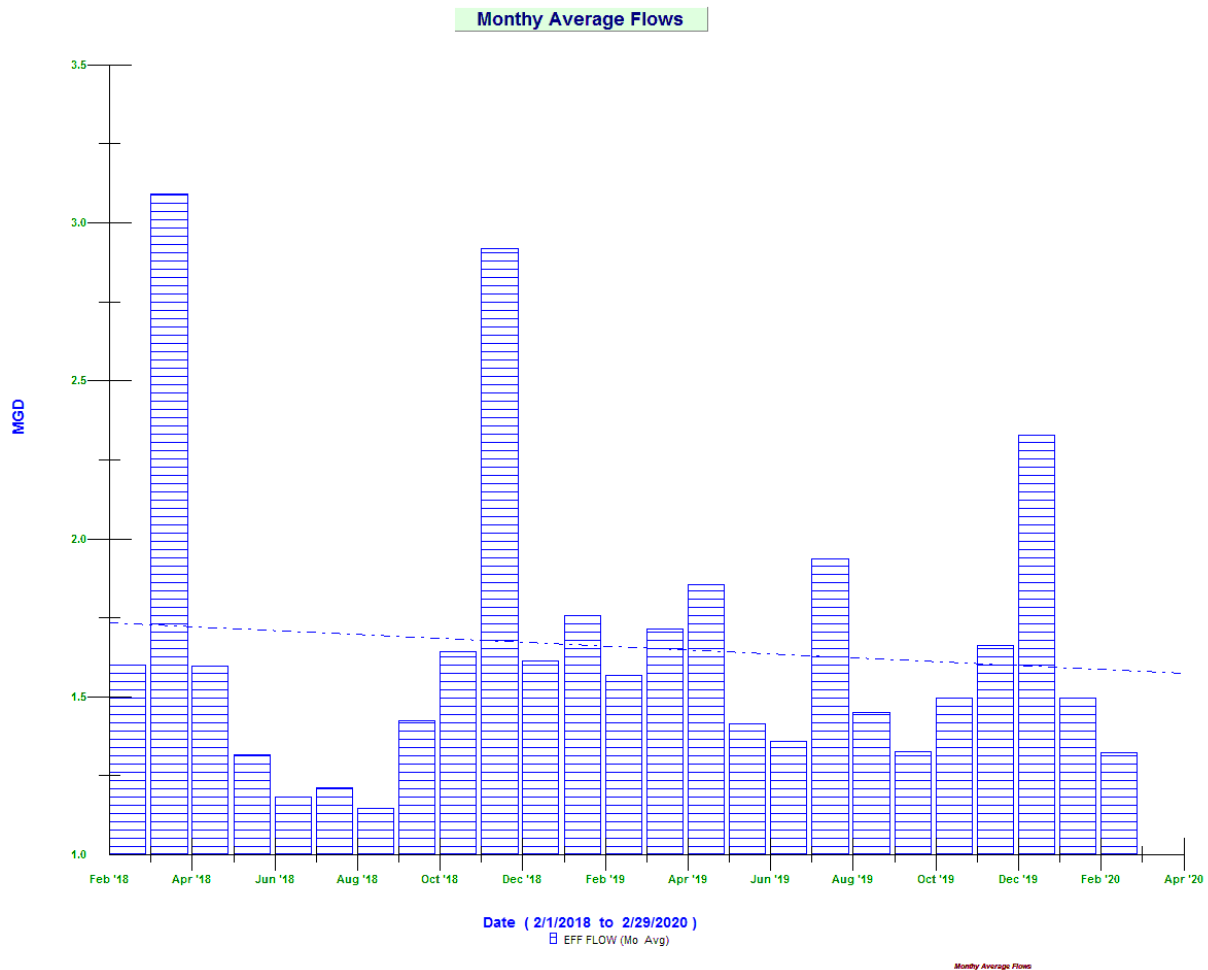


Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
Feb 2018	1.601	1.871*	1321	1641	56	115
Feb 2019	1.568	1.884	795	1589	35	87
Feb 2020	1.323	1.500*	1140	2001*	30	81

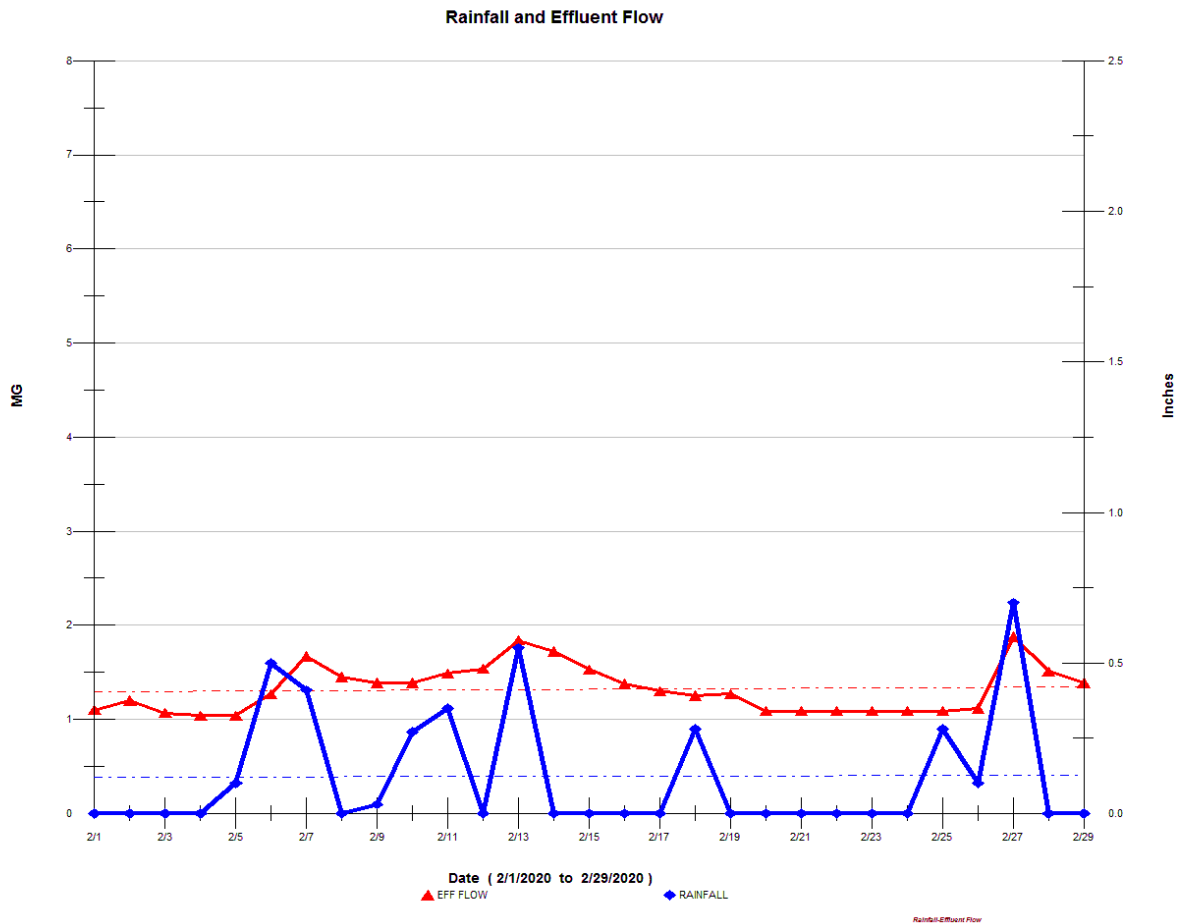
* Meter drift – influent flow meters are strap on doppler flow meters, and the internal pipe condition prevents getting a strong signal. The staff adjusts accordingly and utilizes the area velocity meter in the aeration tank inlet channel as needed. All loadings are based on the effluent flow meter. There is an additional flow meter installed in the headworks over the Parshall flume that is monitoring influent sewage flows. This meter is now tied into the Scada system so that influent flows can be monitored from this location also.

2.1 AVERAGE EFFLUENT MONTHLY FLOWS – TWO YEAR COMPARISON

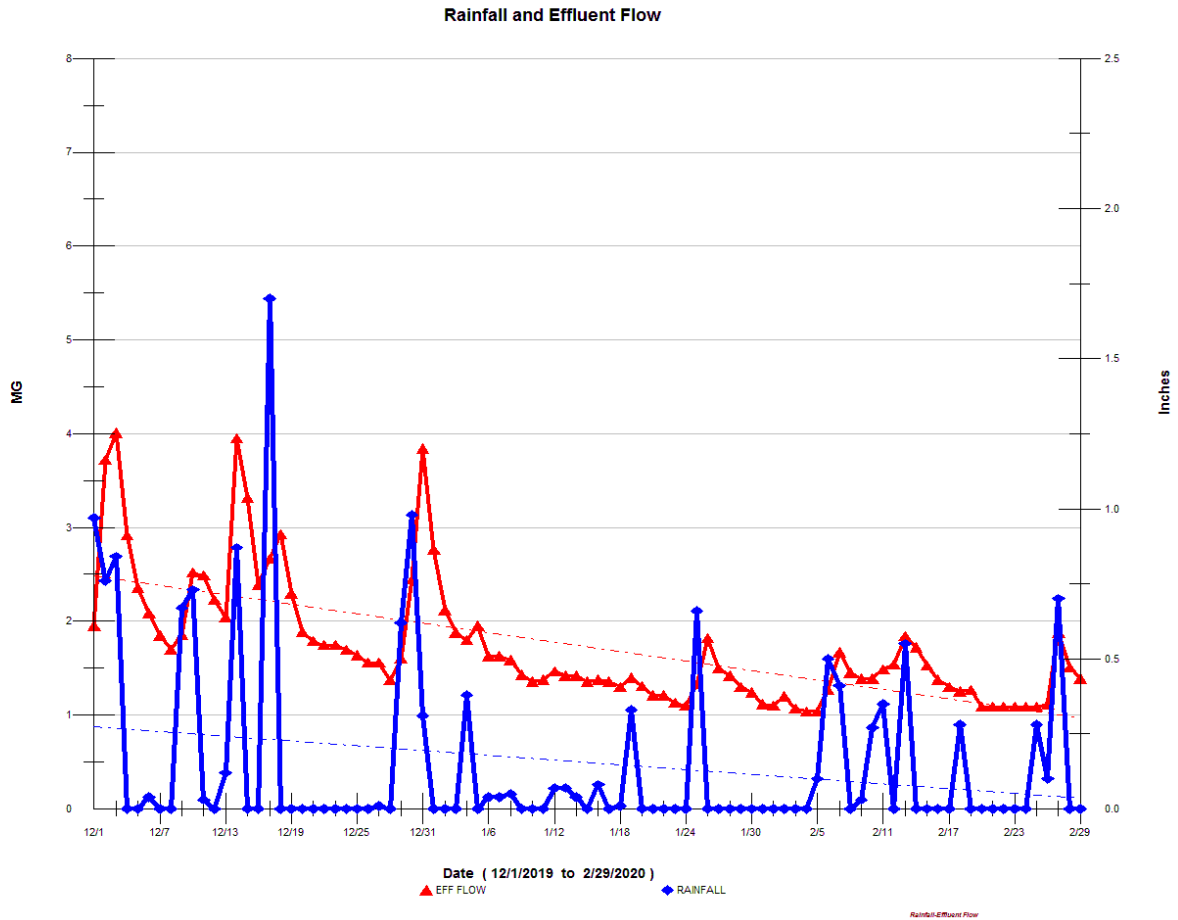


Monthly average flow for February was 1.32 MGD, the 2nd consecutive month of lower flows. There were only a few wet weather events in February. The total precipitation for the month was 3.57 inches. The graph shows a 2-year summary of the monthly average flows.

2.2 MONTHLY SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



This graph shows the days where plant flows were higher due to some rainfall [Blue Peaks]. This graph provides the time where flows increased very slightly due to the wet weather conditions. There were only three [3] wet weather events in February where the rainfall caused a slight rise in plant flows. Inflow and Infiltration [I&I] out in the collection system has been noted in the past with the increased effluent flow values when it rains. The recent manhole and interceptor lining projects have had a positive impact and reducing some I&I.



This graph shows the last 3 months Dec, Jan, Feb and the impacts of rainfall/precipitation on plant flows. The current winter season has seen little or no snow, and lower than average precipitation so far.

3 COMPLIANCE



➤ Plant Effluent

- There were no permit exceedances for the month of February.
- Plant process conditions continued to be maintaining well, with the aeration tank solids inventory consistent. There were little or no impacts from the Nantasket interceptor cleaning until late in the month., as cleaning was idle until then. Wasting rates were unchanged, but the secondary system saw inventory rise some. Effluent clarity remained very good with results less than 5 NTU [turbidity units]. Both secondary clarifiers and the primary clarifier were on-line for the entire month. Plant flows were low due to less wet weather conditions. Sludge settleability remained good but slower settling trend was observed. No chlorination of the RAS was needed. The aeration process mode remained in contact stabilization mode, with a limited flow into aeration tank #1 and there were no changes in the current flow splits. The aeration blower mode was in “timed ON-OFF” mode with air being cycled, although the timed cycling was adjusted slightly to allow for more aeration “on” time.



Aeration tank #1- moderate foam

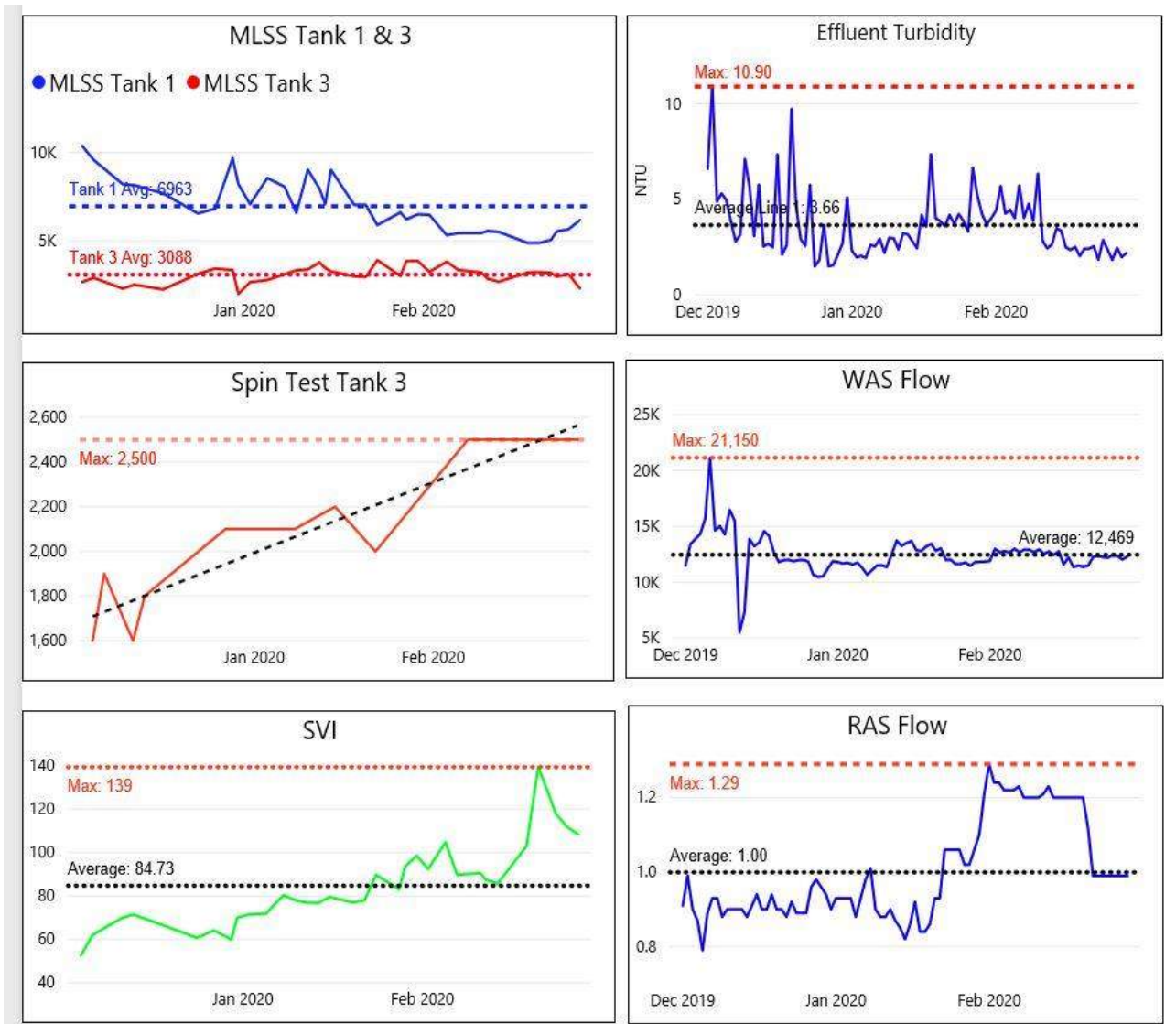


Aeration Tank #3



Secondary Clarifier

- A Copy of the NPDES report for February 2020 was submitted to the EPA & DEP and then forwarded to the Hull Sewer Dept.
- Corporate team [Frank C & Alan F] continued work with the Scada to Hach Wims data management computer data export and transitioning data sharing between SCADA, HACH, and Power BI for analysis. AI project also requiring some data exports.



Graphs shows trending of secondary processes using Power BI for 3-month period ending on 2/29/20. The SVI, sludge volume index, did trend up but still relatively stable, as the sludge settleability was slower. The solids inventory under aeration was higher, and some adjustments would be made in March.

- SPCC: Regular monthly inspection of the new AST and fuel day tank, as well at container storage of waste oil. Updated file.

- Kristina Richards completed the Tier 2 report for site hazardous materials for reporting year 2019 as it was due by March 1st.
- Annual sludge summary for reporting year 2019 completed and submitted.
- Preparation & data collection started for Source Registration report due by March 31, 2019. This report is due every three years. Assistance by W&C – Margaret Byrne.

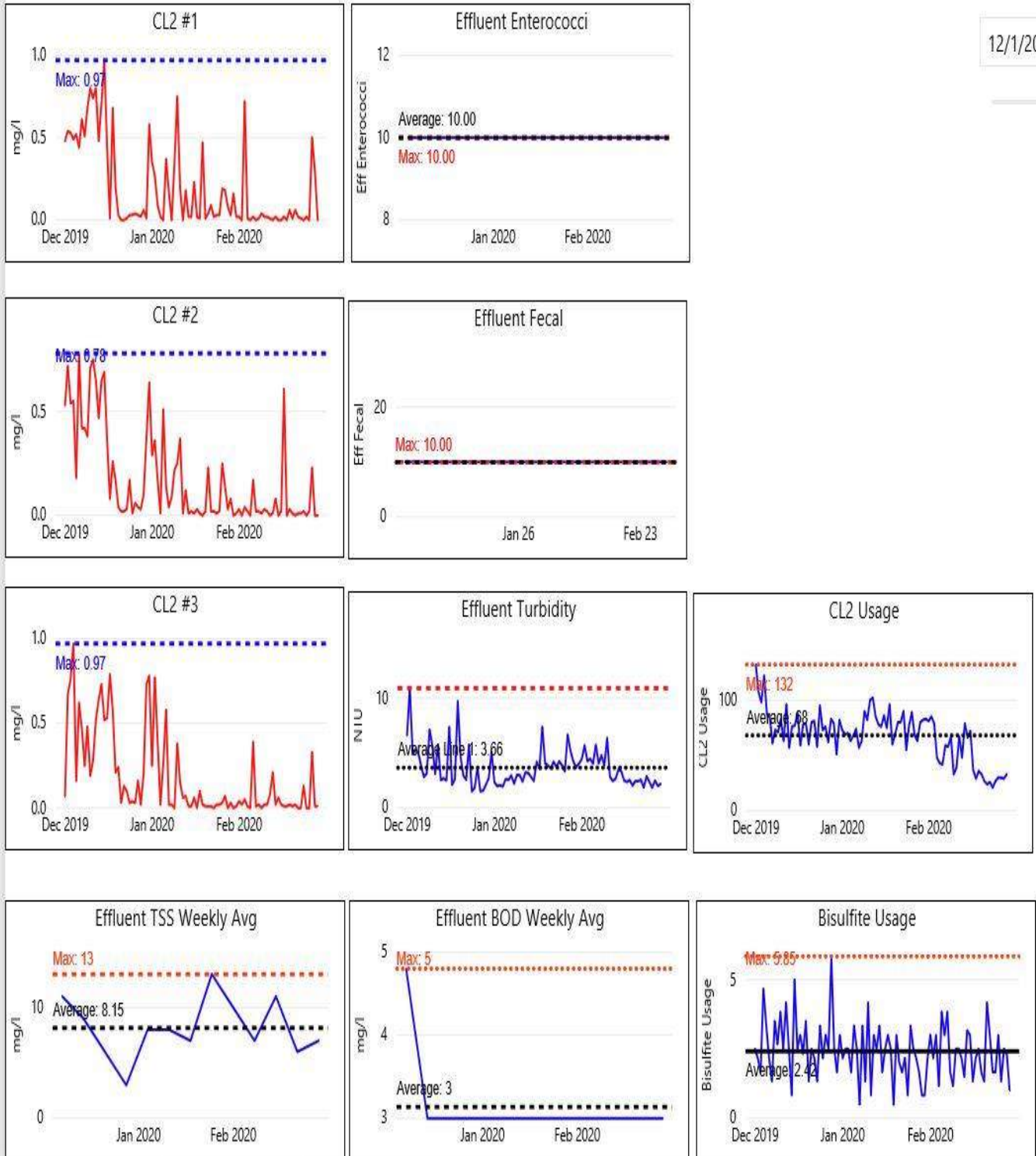
4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY – FEBRUARY 2019

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	7.8	6.0	11.0	4	0
Eff TSS	LBS			1152	768	1 X Week	80.9	60.7	136.7		0
% TSS Rem	%		85			1 X Month	96.1				0
Eff BOD	MG/L	50		45	30	1 X Week	3.0	3.0	3.0	4	0
Eff BOD	LBS			1152	768	1 X Week	30.5	26.0	37.3		0
% BOD Rem	%		85			1 X Month	97.4				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.06	0.00	0.35	87	0
Eff Fecal	#/100 ML	260			88	1 X Week	10	10	10	4	0
Eff pH	SU	8.5	6.5			1X Daily	6.9	6.7	7.2	29	0
Enterococci	#/100 ML	276			35	1 X Week	10	10	10	4	0

- There were 140 effluent samples taken in the month of February with zero [0] NPDES Permit exceedances.

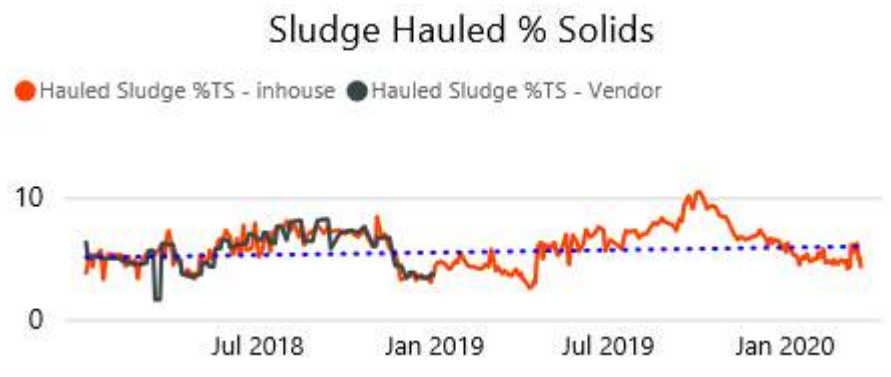
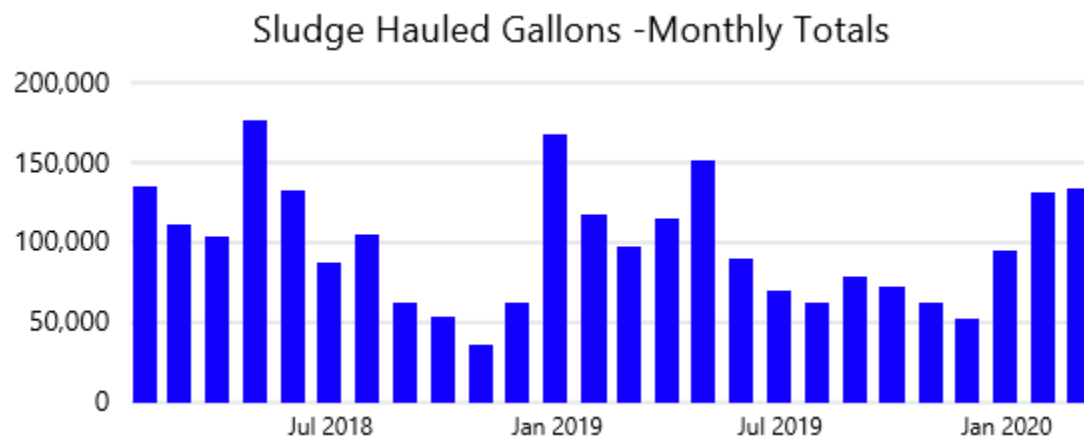


Power BI graphs showing effluent compliance for the last 3 months, chlorine residuals, & chemical use.

Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
February 2018	44.84	111,500
February 2019	43.90	98,000
February 2020	38.38	134,000

Power BI graphs for sludge solids & gallons hauled



5 ODOR CONTROL

There were no odor complaint calls during the month of February. The gravity thickener and primary clarifier both were on-line for the month, as this is the only means for sludge thickening with the shutdown of the rotary drum sludge thickener [RDT]. No change - the above ground sludge storage tank and RDT remained offline in February. Other plant operations such as scum well pumping, tank cleaning, aeration trough flushing was conducted regularly to avoid odors. The portable Jerome meter was returned to the facility in late February. The permanent installation of H₂S sensors on the scrubber for the “in” and “out” monitoring is scheduled and planned for early March.

The odor scrubber system was shut down for parts of two days for annual acid cleaning of the packed media and inspection of the vessel. A neighborhood letter for potential odors was distributed to the surrounding residents. No complaints were received, and the fan was on during the evening hours. The scrubber fan speed remains at a mid-range due to low levels of hydrogen sulfide production currently.

- The Evoqua 2020 plan will be to utilize Bioxide again, with new “Vapor Link” system controls for remote monitoring and chemical feed adjustment. The target date for the installation of the newer system components will be late April 2020.
- “In-Pipe” bacteria addition continued with all 24 dosing stations operational. The inspection/replacement with full bottles took place on 2/19/20. Kick-start vegetable protein/ bacteria supplement was added in February. All work being tracked on the Utility Cloud [UC].
- Continued the bi-weekly change outs of the bacteria bottles at three lift stations Microbe Dosing Stations (MDU’s) with installation just in front of the three largest pump stations [in the wet wells or manhole just prior to the station. [PS 3, PS 5, PS 9].
- Mixing systems/aerators all functional at the pump stations, except for pump station #3. New Medora Gridbee mixing system for PS 3 not installed yet. Mixer/Aerators at PS 1, PS4. PS6 & PS 9 are on timed control through SCADA.

6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

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

Key items of note are listed below.

- 1) Pump Station #5 force main construction: D'Allessandro Corp installed a new 14-inch FM isolation valve, 8-inch bypass valve, 8-inch bypass standpipe, and 2-inch standpipe drain back valve and piping on Feb 24th. This was a design that had been planned and worked out by Bill B and Brian K over the previous few months to best protect the pump station if one or both of the old heavily corroded pumps inside the station were to fail at the station. The modification would allow for the pump station to be completely bypassed if any repair work was needed inside the pump room. This upgrade plan and equipment installation will also allow for the future planned replacement of the pumps and piping inside the station, while maintaining full function using the new 8-inch portable pump to pump sewage up the force main to Nantasket Ave. The design installation included thrust blocks and ample crushed stone to protect the piping stability long term. While the installation work was going on, two Wastewater Services, Inc [WWSI] trucks maintained the sewage flow to the station wet well and transported to a nearby manhole on 2/24. The remainder of the piping project was completed on 2/25. Pictured below – new valve and piping.



- 2) After the construction work at PS5 was completed, the station generator came on at around 11:00AM on the following day [2/26]. Bill B went out to inspect the conditions and found that the transformer fuses on the primary poles had blown. Later in the day after some additional investigation, it was determined that the underground electrical service was affected and a short to

ground condition existed that created the loss of power to the station. Emergency response planning was done by Bill in conjunction with Hull Light, Pat Cannon, and the selected electrical contractor, High Voltage Associates [HVA] that was brought in. The stationary generator at the station kept normal function of the station remainder of the day and into the next day until 6pm, when the work was completed. Since the existing electrical service did not meet the current electrical code, HVA and Pat Cannon determined that a completely new service feed would be needed. D'Allessandro Corp provided a crew to assist with the excavation of the existing underground service conduits, so that a new service could be set in place. The service feed came underground from the utility pole across the street. Some photos of this work are shown below.



- 3) D-Street new axial flow pump installation was completed Feb 26th to 27th. This included removal of the old pumps and piping by W&C on 2/25, currently being saved at the plant for potential other use by W&C, the new installation of 2 10-inch axial flow pumps and associated piping, and new VFD's also installed to provide efficient control of the pumps. Industrial Pump Sales & Service did the installation of the pumps and piping, assisted by W&C, with Fellows Electric performing the electrical work. Pictured below L to R: new pump in chamber, discharge piping, discharge pipes and flow out rear of building.



- 4) Sludge holding tank #2 was cleaned out completely – a joint effort by W&C and Wind River. W&C staff also took apart the gravity line that enters the sludge transfer room so the line can be inspected using the push camera while the tank is down to be used for the SSES yard piping investigation. W&C staff will further inspect the aeration piping inside of SHT#2 while the tank is down prior to any new sludge being stored in the tank. Pictured: Diffuser domes on tank bottom.



- 5) Repairs to the plant's on-site Town owned & towable utility trailers, were made, as the trailers needed various repairs to be useable. The trailers were used to transport piping, fittings, and the new pumps for the D Street pump station work.
- 6) RST improvements have continued with and are projected to be completed in March. In February the sludge pump hopper was replaced with new and required a combination of in-house fabrication and OEM parts. Pictured below: L to R: Disassembled unit, old pump hopper, new pump hopper installed.



- 7) Tecta America annual roof inspection. [see section 10]
- 8) Grit Pump Room cleaning was done. JHoadley vactor truck was setup in front of the garage and piping vacuum piping through the garage and headworks area down into the grit pump room. This cleaning work was necessary, due to the recent grit system piping clogs that shut the system down for a few days. The clogging was most likely from the recent GMPS interceptor cleaning work months prior. Also, the remaining debris from the 2013 building flood was cleaned out.



- 9) Highland Power was onsite to inspect and clean out the fuel filter strainer and the fuel heat exchanger that protect the day tank and remove any solids that may build up in the AST over time. Pictured below.



10) Caustic chemical feed pump for scrubber – head assembly repairs – new rollers and tube.



11) Annual odor scrubber – media cleaning and tank inspection was performed over two days. Pictured below: Left – inside of scrubber vessel and media; Right – scrubber vessel, pressure gauge and recirculation pumps.



12) Back up internet modem – resolved issues with the AT&T cellular back up modem if the internet is lost. The facility remote-in for the SCADA system depends on a working internet, and if this fails, the cellular back-up provides access to SCADA.



6.2 ASSET MANAGEMENT ACCOUNTS

Please see the attached summary of the Asset Management accounts for contract year (5). Most recent through **03/11/20**

**Updates & notes made to the planned expenditures list.
Items grouped by task – 101A, 102B, 103A**

Projected costs and actual costs combined total are near the 05M budget, adjustments and decisions are being made on a regular basis based upon priorities and unforeseen costs. The planned list was set up to layout a planned budget for the contract year. There are several items are shaded in the comment section that are targeted for next contract year [06M].

When capital projects are completed, the cost to complete is noted under “final cost.” All the capital maintenance items “102B” have been listed in the planned expenditures list for easier review.

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 February.
- Coronavirus Covid-19 updates discussed – company initiatives.
- Ongoing - Daily safety briefing meetings, review site safety policies with sub-contractors, safety tailgate topics. Pure Safety topic– February – *Hand, arm body protection, hearing conservation.*
- Monthly staff safety meeting conducted on 2/27/20 - AV and RH presented. PowerPoint presentation by RH on Powered Industrial Trucks – and Forklifts. Operation and safety.
- Reminders for daily safety briefing topics and discussion points & documentation. Review “Lessons Learned” from January 2019 - Near misses and incidents from other company projects.
- Winter safety discussed – cold temperatures, slippery conditions, appropriate winter outer wear.
- Reminder - Work boots – authorizations for 2020 available.
- Starting work to update site specific Blood-borne pathogen and Pandemic plans.
- Inspect and prepare status report for emergency lighting and exit signs in Ops building.
- Inspect various areas and label plates/access points where a fall hazard could exist if the plate became dislodged or moved.



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 February discussed.
- Regular operational updates and process control discussions, pump station operations, especially with all sewer projects going on in the town, dig-safes, etc.
- Intern – Declan Baggett [Hull resident] from Mass Maritime – completed his internship & operations – receiving operations and maintenance on-the-job training. He presented a PowerPoint presentation of his Hull experience.



- W&C hopes to have Declan continue as a part-time employee for the remainder of the school year and work full-time during the summer months.

Staffing related items:

- Continued involvement with Mass Maritime [MM] internship program/career fair for future interns. Undetermined who next candidate would be]
- Sunday rotation schedule changed due to the passing of Jim Gagliard. The Sunday schedule will be covered 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. Jody S providing coverage when staff levels are lower due to sickness, vacation, or training. Richard [Dick] Gould from the Linden Ponds project is available for various fill-in coverage as needed.

9 COLLECTION SYSTEM

9.1 WET WELL CLEANING

The actual schedule for wet well cleaning: May 2019 to April 2020:

(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, 2019				X	X			
June, 2019								
July, 2019								
Aug., 2019	X			X	X		X	
Sept. 2019								
Oct., 2019	X		X	X				
Nov, 2019								
Dec., 2019								
Jan., 2020	X		X		X			
Feb., 2020				X	X			
March 2020								
April 2020								

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 January and these are noted in the UC summary.

- In-Pipe units – battery change out, dosing unit cleaning and inspection and circuit board troubleshooting and replacement as needed.
- Co-ordinate with Aqualine for shutdown of PS1 so a new gravity pipe could be cored into the wet well. AV coordinated the pumper trucks and changed pump station level controls to provide environmental protection to best allow the work to go on without any issues. A W&C engineer was on site for the day, and the station was shutdown for approximately 1.5 hrs.

- Assisted Aqualine and Next Level CCTV by shutting off PS3 on 2/4/20 for short periods to stop flow in the PS 3 force main, so the end of the pipe could be inspected.
- All Pump station generator loaded, and non-loaded generator runs were done for the month.

Manholes:

- Staff continues to respond to rattling manhole covers, as a result of on-going work by GMPS and other reasons. Replace manhole cover cushion rings as needed.

Dig Safe mark outs:

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

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

10 PROJECT MANAGEMENT & ADMINISTRATION



10.1 ON-GOING PROJECTS AND SUPPORT ITEMS

- On-going issue – continuing to add oil to secondary clarifier gear boxes and gravity thickener gear box. All the existing Amwell units have leaks, as previously documented [lower gear box seals are no good]. The only exception is primary clarifier #2 – running ok. PC2 currently has a slight upper gear box leak that will be addressed when the clarifier is taken off-line for the summer months. Continuing to use the flowable grease product that is thicker and lessens the amount of oil leakage. The estimated consumption of the product with SC1, SC2, and GT1 on-line is currently at 5-6 gallons per week. The gravity thickener drive unit as mentioned is also laboring more and is being closely monitored.
- The current summary 03/17/20 for the account status for and the year 5 asset management accounts, and the 05M checkbook spreadsheet with updated maintenance task plan for the year are attached to this monthly report. The plan is regularly updated to reflect changes in the spending plan, with adjustments made as projects are completed, and priorities change. Unexpected work and expenses are also factored in. [i.e. sub-contractors, goods and services, etc.]
- Amwell gear drives installation and installation plan on hold until headworks cleaning and screenings box plans are finalized., A spring 2020 installation is still targeted. Both contractors have been informed of the current status and in the event of a mechanical failure of the existing equipment, in the event of a failure of existing equipment, what mobilization plan they can offer.
- The portable generator, that the HSD purchased through the “Sourcewell” purchasing contract is ready for delivery. A confirmed delivery date to the plant is on hold due to current projects. A late March/early April delivery is planned.
- D Street stormwater pump upgrade work is nearly complete. The new pumps were installed on 2/27 & 2/28. See maintenance section.

- W&C continued to assist the HSD and Tighe & Bond with regular review and answering of questions, as the final plans for the HVAC plan get closer to completion. Areas of assistance included: operations building layout changes, future electrical room & architectural questions, assisting T&B engineers and affiliated Peer PC engineers [building assessments].
- W&C working with the HSD to finalizing PS5 bypass isolation valve installation and piping modifications. Reviewing construction plan and sub-contractor set-up for funding under 05M.
- Roofing repair work – worked to finalize the annual roof inspection for all buildings. This was completed on February 21, 2020 by Tecta America [TA]. Several small repairs were made to the operations building roof, due to unbonded membrane sections, punctures, and base flashing voids, splits and open side laps. These areas were repaired using compatible Single-Ply materials and repair procedures in compliance with membrane manufacturer's recommendations. Additional walk pads were installed to extend the life of the existing roof membrane. The contractor indicated that with timely completion of recommended repairs and continued regular maintenance, the operations building roof has an estimated remaining service life of 7-9 years. The stairwell roof repairs are scheduled for early March 2020, as weather permits.



- Planned ladder replacements at LS A [one section]; PS 6 [one section] now planned for April. The replacements are being done under the 05M asset management account.
- Preparations underway for scrubber H₂S sensors for the inlet and outlet hydrogen sulfide monitoring. with the electrical work is expected to be completed in early March.
- With the winter shutdown of the rotary drum thickener [RDT] - items still to be addressed while the unit is off-line including the drive sprocket and chain replacement, polymer system blending unit cleaning, and general equipment and area clean up.
- Ongoing support for conditional assessment of plant equipment, and facility planning. Provide information and feedback. Attend facility planning meetings/discussions.

- SSES and WWTF yard piping conditional assessment efforts. Provide information and feedback on yard piping access, location of proposed test pits at the plant, and alternatives to excavation. Provide information on various sewersheds within the town that have the highest I&I potential for inspection.
- Continued work on MassCEC Aquasight project. Bill and staff have assisted troubleshooting of the new AcroMag switches that allow the new pressure transducers to communicate with SCADA and be used by the AI vendor.

Asset Management Accounts - Year 5							
		Actual to date			Projected for Final Estimate		
Account		Budgeted Amount	Spent to Date	Delta	Projected costs and incl PO's	Final est	Delta
05M-101A	Preventive Maint	\$206,323.41	\$124,354.63	\$81,968.78	\$9,870.00	\$134,224.63	\$72,098.78
05M-102B	Capital and Major Repairs	\$140,000.00	\$162,336.68	(\$22,336.68)	\$14,000.00	\$176,336.68	(\$36,336.68)
05M-103A	Major Sub Contractors	\$174,785.44	\$163,585.80	\$11,199.64	\$46,600.00	\$210,185.80	(\$35,400.36)
blank					\$0.00		
	Asset Management	\$521,108.86	\$450,277.11	\$70,831.75	\$70,470.00	\$520,747.11	\$361.75

\$70,831.75

Budget expended	Time Status	
	NOW=	3/11/2020
	Start	5/1/2019
60.3%	86.5%	26.3%
116.0%	86.5%	-29.4%
93.6%	86.5%	-7.1%
86.4%	86.5%	0.1%

05S	D Street	\$7,500.00	\$5,203.04	\$2,296.96	\$0.00	\$5,203.04	\$2,296.96
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69.4%	86.5%	17.2%
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For Feb M.O.R
2020

For Feb. 2020 M.O.R.

Hull 2019 - 05M Projects, Tasks, and Needs - 04-23-2019 (RS)

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$70,470.00

3/11/2020 20:45

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Mechanical Work Labor	On Going		101A	\$4,000.00			Jody St. George, Jim Gagliard, and WC Support Staff; orig budget \$40,000; approx \$3300/mo; delete \$2,000 - 3/9/20
1	Pump and Motor Repairs	On Going		101A				to keep existing equipment running - utilize various outside contractor repair shops; orig budget \$25,000; approx \$2000/mo budgeted. [updated monthly] incl \$2,000 for Vaghan parts for PSL pumps; delete remaining \$4,000 budget [3/9/20]
1	Lubricants	On Going		101A	\$500.00			Various Suppliers for oil and grease, orig budget 4500; adj budget 1/20/20
1	Generator Repairs [see item - line #92]	Pending		101A				General Repair Work - Placeholder, accounting for work done to date; received quote from Hughland Power for heat exchg Pm, and other. \$4450 will be on a purchase order.
1	Fire Alarm Inspections and Service	Completed		101A				Semi Annual - Hart Security completed in October
1	Fire Alarm Inspections and Service	Pending		101A	\$650.00			Semi Annual - Hart Security [April]
1	Fire Alarm Inspections and Service - Central Station	Completed		101A				Annual - Hart Security [deleted est cost of \$264]
1	Service the Snowplow	Completed		101A				Annual - Fal 2019 - pcard charge will apply \$1,500
1	Service the Forklift	Pending		101A	\$400.00			Annual
1	Overhead Hoist Inspection	Pending		101A	\$1,500.00			Annual - Applied Dynamics - PO usually is issued in April, but last insp was done May 2019
1	Flow meter verification and calibration	Completed		101A				Annual - Ray Ferland 1 visit sept 2019; Orig budget \$1,000
1	Facility Building - Roof Inspection	On Going		101A				Annual - Established contract with Tecta America [year 2] PO in system as of 2/6/20 # 100823 - \$2950]
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 & calibration, unit no longer under service agreement, due to unit's age. As of 2/6 - committed to repairs.
1	Portable Generator Spill Containment - SPCC	completed		101A		\$10,980.00		proposal by Vortex - supply and install; PO issued for \$11,000; orig budget \$5,500; on purchase order # 100510.
1	Godwin Pump Spill Containment - SPCC	Completed		101A				proposal by Vortex [see above]
1	Godwin Pump Inline Screening - Honeybucket	Completed		101A				proposal by Vortex - [see above]
1	Install an 1 1/2" water connection (?) from generator room to the outside for hose	Completed		101A				materials & Jody S time [deleted est cost of \$500]
1	Janitorial Supplies	On Going		101A				Estimated annual expenditures Orig budget \$750
1	Backflow device testing	On Going		101A	\$220.00			\$220 per Qtr, per water supplier [orig budget \$880]
1	Manhole Inspections	On Going		101A				As required, and/or scheduled

Hull 2019 - 05M Projects, Tasks, and Needs - 04-23-2019 (RS)

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$70,470.00

[3/11/2020 20:45](#)

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	General mechanical and electrical items/supplies	On Going		101A	\$1,000.00			Grainger, FWWebb, EJP, Hoadley, McMasterCarr, etc. Orig budget \$20,000; reduce budget by expenses posted approx 40%; reduce monthly by \$2,000; adj on 2/6/20 as we have PO for RDT parts with Parkson [\$1,000]
2	Vibration Analysis Survey	Pending		101A				Annual - 2 to 3 Days - Aeration System Blowers, Pump Station Pumps, etc./tbd; 1500/day; 10/21 readj budget to \$4500 - 06M target - remove \$4500 on 2/6/20
2	Valves	Pending		101A				Replacements and/or Service - On-Going - As Needed; Orig budget est \$4000; move costs to 06M
2	Hoses	On Going		101A				Replacements and/or Service - On-Going - As Needed; Orig budget est \$3000; unless needed wait until after 5/1/20
2	Sump Pumps	On Going		101A				Replacements and/or Service - On-Going - As Needed - orig budget \$2500.00; ytd = 1200
2	Install 6" or 8" drop pipes in secondary clarifier #1 and #2	Pending		101A				In-house staff to fabricate, could be item moved to 06M and go to 8" pipe? [delete the \$2,000 on 2/6/20]
2	Duperon Site Visit	Completed		101A				Coordinate a site visit with Service Tech when in the area [deleted est cost of \$1,500]; actual cost was \$2400.
2	Roof Exhaust Fan Motor Baldor EM3615T	Completed		101A				Need a spare [deleted est cost of \$600]
2	Misc. Materials	On Going		101A	\$500.00			Hardware Store - \$200.00 per month - reoccurring expense, orig total budget \$2400; reduce by monthly YTD
2	Rotating Sludge Thickener - Booster Pump	Completed		101A				Purchase (1) new replacements \$1000 each [deleted est cost of \$1,000]
2	PS 1 impellers/flow	Pending		101A				look at increasing size of impellers, after Gunrock work completed
2	Lift Station A	Pending		101A				Pump efficiency lower than desired
2	Lift Station A	On Going		101A				Emerg building repairs due to building settling and door frame deterioration; temporary repairs appear to be holding up well. [Done by Jody S]
3	Install new aeration channel angle iron for a slide gate or pri scrapers fabricate	Completed		101A				Jody St. George to install; pri clar scrapers completd. Channel slide gates still pending \$3000 est.
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				Orig est - \$600; Additional lockers to replace those removed years ago; may wait until after 5/1/20
3	Purchase (2) spare Euro drives for the RST; 1 new unit for thickened sludge pump	On Going		101A				spare part items - currently do not have; orig budget \$2500; 1 drive for the thickened sludge pump purchased Aug2019 [deleted est cost of \$1,250] Still no spare unit for drum drive or condit tank. May wait until 5/1/20
3	Purchase an LMI pump for the RST	Pending		101A				spare part items - currently do not have, May wait until after 5/1/20 \$1,600
3	Purchase an equipment lift or gantry	Pending		101A				planned cost \$2,500 for moving elec hoists around, & other equip - possiblyould wait until after 5/1/20
	Dehumidifiers for pump stations	Completed		101A				ordered 2 for 2 pump stations [5 left to do]; orig budget for 2= \$2200.00 - paid for already

Hull 2019 - 05M Projects, Tasks, and Needs - 04-23-2019 (RS)

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

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Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
	Vaughan Pump parts for PC pumps #1 & 2	On Going		101A				Parts for repairs ordered, and received. Actual bill paid \$2,644.
	Parkson - parts for RDT - drive sprocket, chain, motor sprocket	On Going		101A				PO in system for \$956.00
1	Pump Station #5 Discharge Pipe - Replace with C900 Pipe and install a the force main Isolation valve	Pending		102B	\$9,000.00			Being looked at currently Dec/Jan - TDB if funds to come from 05M -Best time to complete - insert the estim budget. On a PO # \$29,450; additional \$9,000 costs - chg porder 3/9/20
1	(GT) Steel rake mechanism inspection and needed repairs	Pending		102B				place holder estimate (2) guys for (3) days - welding and materials - coating - ?? if these would remain under 05M or go under bond account. Orig cost estimate \$7,500. Chg to spring 2020.
1	(SC#1) Steel rake mechanism inspection and needed repairs	Pending		102B				place holder estimate (2) guys for (3) days - welding and materials - coating - ?? if these would remain under 05M or go under bond account. Orig cost estimate \$7,500. Chg to spring 2020.
1	(SC#2) Steel rake mechanism inspection and needed repairs	Pending		102B				place holder estimate (2) guys for (3) days - welding and materials - coating - ?? if these would remain under 05M or go under bond account. Orig cost estimate \$7,500. Chg to spring 2020.
1	New Stander type Lawn Mower	Completed		102B		\$7,764.60		Purchase replacement off of State bid list [PO was issued in late October]Trade in greatDane
1	Odor Scrubber Sensors purchase	Completed		102B		\$5,027.55		Purchase one for the influent and effluent of scrubber. PO issued 1000484
1	Odor Scrubber Sensors - Installation Cost	Completed		102B		\$2,631.00		Electrician's Labor - 2 to 3 days. [planning for late Jan 2020] Glenn F; Srose cost?
1	Dynablend System is obsolete - mixing valve worn - need in kind or like system	Pending		102B				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	Facility Building - Roof Repairs	On Going		102B				two stainwell roofs - South Shore Roofing not approved, since approval process not completed, Change to Tecta America.POI system as of 2/6/20 - \$29890]
2	Pump Station Ladders	On Going		102B	\$5,000.00			Orig budget \$42,000. Contracted Project - Bids - Initiated work with Boston Welding & Forging]; 11/19/19 Update: PS #1 is complete, PS3 in process, part of this budget may wait until pstat structural work done and after 5/1/20; expect completed work at PS1,3,5,A in year 5; as of 2/6/20 - 1 project left to do under 05M
2	Sludge Holding Tank #1 - tank needs to be cleaned, evaluate condition, & replace the aeration system piping	Pending		102B				Assess Needs, determine labor, remove old equipment, replace the aeration line to the tank
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	Purchase and Install (4) additional yard hydrants	On Going		102B				hydrants purchased, and materials & contractor installation [2 days]; hoadley parts & exp \$2600; hydrants rec's \$4700 removed; update 2/6/20 - could wait until after 5/1/20 for 06M? Remove cost from 05M - \$12,800 [3/9/20]
2	PS 4 valves, check valves, install FM isolation valve	Pending		102B				After structural work, replace. FM isolation valve installed already [outside]
3	Influent Distribution Box Gate Repairs	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	Hellan Strainer	Completed		102B		\$18,502.00		Confirming quotes in order to get order in place; PO in system: 100421 for \$19,000; unit installed Jan2020, waiting for invoice.
3 of 5 3/11/2020	Rotating Sludge Thickener - Thickened Sludge Pump	Completed		102B	2019_05_1_05M_Checkbook_VTD	\$4,137.00		recommended new pump hopper purchase; PO issued 10/25/19, part on order, item received 02/11/20 - \$4,137.00; installation planned in mid-Feb 2020.

Hull 2019 - 05M Projects, Tasks, and Needs - 04-23-2019 (RS)

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$70,470.00

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Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
	hoses for new 8-inch portable pump	Completed		102B		\$18,349.00		purchase from Vortex, on order - PO#100591 [\$18,349.00]
	Effluent Pump Room heater & installation	Completed		102B		\$5,327.00		New 3ph heater, breaker at panel, conduit, wiring, etc. Work to be done by High Voltage Assoc. Estim cost \$6500. [heater \$1650, labormat \$4800]; work completed Jan 2020. waiting for final bill. All costs are in [2/6/20]
	Hi Voltage PS5 Emergency work	Completed		102B				PS5 Emergency electrical repairs/work, invoice paid \$5,916.84
	Roof mats - for walkway	On Going		102B				to be done at time of roof insp. Feb 2020; PO in system as of 2/6/20 - \$2920;
1	Electrical Work	On Going		103A	\$2,000.00			Electricians: Pioneer Electric - Glen Fellows, other; orig budget \$50,000; ytd = \$12000; approx \$4000/mo budgeted. Adjust ytd - adjust down 2/6/20 - placeholder; readj budget for PS5 invoice
1	SCADA Work	On Going		103A	\$5,000.00			Steve Rose and the SCADA Support Team; orig budget \$30,000; adj YTD; adj remaining budget on 2/6/20 to 7500 - placeholder; adj down to \$5,000 on 3/9/20.
1	E-One Repairs and Replacement	On Going		103A	\$2,000.00			Based on 2017 and 2018 Costs - E1 repairs where cost-effective & new replacement pumps; orig budget \$25,000; reduce budget to budget left based upon YTD costs 2/6/20; As of 3/9/20 have all 8 spares & no outstanding units.
1	Generator inspection and servicing	Completed		103A				Annual - Highland Power - Generator PM/Service work - due November; 11/19 update - work completed in early Nov. [waiting for invoice]
1	Automatic Transfer Switch inspection and servicing	On Going		103A				Annual Service planned for April 2020 - Highland Power - NETS - Transfer Switch; PO to be issued - #100981
1	Wetwell Inspections and Cleaning - Pump Stations	On Going		103A	\$2,900.00			As Required - \$2500 per day; orig budget \$12,500; reduce to \$10,000; Adj Jan 2020; adj Feb 2020; adj 3/9/20.
1	Wetwell Inspection and Cleaning- Plant	Pending		103A				Annual - pending until HW project gets underway; Orig budget \$4500; remove from targeted expenses 10/21/19.
1	Sewer Line Cleaning - Emergencies	On Going		103A	\$5,000.00			As required by various sub-contractors; orig budget \$25,000; readj budget down to 12,500 on 10/21; adj to 10,000 on 1/20/20; adj to \$6,000 on 2/6/20; adj to \$5k - 2 days of service
1	Collection System - CCTV work	On Going		103A				Currently under BMC purchase order. Work with Peter Lyons to coordinate activities [used up approx 50% of orig 20,000]
1	Collection System - Jetting Work	On Going		103A				Currently under BMC purchase order. Work with Peter Lyons to coordinate activities Determine how many Linear Feet and Locations to address [used up approx 50% of orig 20,000]
1	Pump Station #4 - camera work, cleaning and pumping	Completed		103A				National Water Main Rosano-Davis & WWSI [deleted est cost of \$5,155]
1	Aeration Blower PLC Upgrade - Hardware	Pending		103A	\$14,200.00			Equipment purchase to come from 05M on the Critical Spare List; based on latest quote from Doug Tirrell.
	Aeration Blower PLC Upgrade - Installation	Pending		103A	\$11,500.00			labor to come from 05M on the Critical Spare List; based on latest quote from Doug Tirrell.
2	Low pressure sewer valve box insp & mtce	Pending		103A				placeholder for contractor inspections and potential repairs; still working to line up a contractor; 2/6/20 may investigate internally, move budget to 06M [delete the \$10,000]
2	Gridbee Aeration System - Pump Station #1	Completed		103A				Electrical wiring and tie into the SCADA system - Glen Fellows [deleted est cost of \$1,500]
2	Gridbee Aeration System - Pump Station #9	Completed		103A				Tie into the SCADA system - Glen Fellows [deleted est cost of \$1,500]
2	Regen Aeration System - Pump Station #5	Pending		103A				Orig est \$1,500 - Tie into the SCADA system - Glen Fellows; may wait until after 5/1/20
2	Sludge Holding Tank #1 - Clean Tank	Pending		103A				Orig budget - \$5,000 for Vac Truck, CSE Team, Debris disposal & O&M tech support; Some work done by W&C staff 1/16/20; disposal of debris an issue TBD; eval after 5/1/20

Hull 2019 - 05M Projects, Tasks, and Needs - 04-23-2019 (RS)

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$70,470.00

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Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	FRM - Control Panel for E-One & other spare parts	On Going		103A				for inventory if needed - orig budget \$2,000
2	Generators - Load Bank Testing	Pending		103A				Look at under 05M - PS#1, PS#3, PS#4, PS#5, PS#6, and PS#9 [\$3,000]
	Rosano-Davis Pumping for NWM Atlantic Ave MH rehab	Completed		103A				per HSD - 8 days at 9 hrs/day - \$1,800 per day rate; orig est \$14,400 readjusted down to actuals - estim; remaining funds; all bill are in 1/20/20;
	Engineering \$\$ to 05M	On Going		103A				TBD; YTD costs will post to detail report approx \$12,000 spent as of 10/21; Tim H, Nick V, Seth, Patrick H,;
	pump & haul for PS 5 work - planned for Jan/Feb 2020	Completed		103A	\$4,000.00			2 pump trucks for 1 day pumping - bills pending
	Grit Pump room cleaning Vac & labor Jody S.	Completed		103A				Clean grit pump room - grit on floor from recent blockages in system
	Highland Power - Servicing the heat exchangers, fuel filters, etc	Completed		103A				Per proposal \$4,550.00; work completed march 2020, bill outstanding - on PO#100982
1	Replace the Gravity Thickener Drive							From Critical Spare SRF - Installation Funding to come from Bond Acct - estimate \$30,000
1	Replace the Secondary Clarifier #2 Drive							From Critical Spare SRF - Need installation money from 05m or other bond money? Funding from Bond Acct - estimate \$30,000
1	Replace the Secondary Clarifier #1 Drive							From Critical Spare SRF - Need installation money from 05m or other bond money? Funding from Bond Acct - estimate \$30,000
TOTAL					\$70,470.00			

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class	View
2/10/2020 9:54	10-074	0 HOLBROOK AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/10/2020 9:51	10-076	22 HOLBROOK AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/25/2020 14:13	14-134	16 P STREET	Hull Parcels	Sutton, Eric	Generic WO	View
2/11/2020 11:42	21-079	146 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/12/2020 12:09	24-173	6 FRONT STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/9/2020 13:24	25-002	61 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Customer Complaint	View
2/21/2020 11:31	25-002	61 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/6/2020 12:22	27-013	9 MANOMET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/9/2020 15:17	29-012	43 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
2/18/2020 10:43	29-020	59 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/19/2020 15:12	35-109	1 ROOSEVELT AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	View
2/4/2020 13:19	38-037	28 PARK AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Customer Complaint	View
2/9/2020 13:29	38-037	28 PARK AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Customer Complaint	View
2/6/2020 11:16	43-136	38 ALSADA RD	Hull Parcels	Sutton, Eric	Hull - Markout	View
2/4/2020 11:42	Bateria UNIT #21	UNIT #21	Hull In Pipe Bateria Unit	Boornazian, Bill	Hull - In Pipe Bateria Units	View
2/19/2020 13:50	Bateria UNIT #21	UNIT #21	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:45	Bateria UNIT #22	UNIT #22	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:58	Bateria UNIT # 8	UNIT # 8	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 14:37	Bateria UNIT #1	UNIT #1	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:58	Bateria UNIT #10	UNIT #10	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:55	Bateria UNIT #11	UNIT #11	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:47	Bateria UNIT #12	UNIT #12	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:48	Bateria UNIT #13	UNIT #13	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:50	Bateria UNIT #14	UNIT #14	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:49	Bateria UNIT #15	UNIT #15	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:54	Bateria UNIT #16	UNIT #16	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:57	Bateria UNIT #17	UNIT #17	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:52	Bateria UNIT #18	UNIT #18	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:56	Bateria UNIT #19	UNIT #19	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 14:07	Bateria UNIT #2	UNIT #2	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:51	Bateria UNIT #20	UNIT #20	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:46	Bateria UNIT #23	UNIT #23	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View

2/19/2020 14:36	Bateria UNIT #24	UNIT #24	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/4/2020 11:25	Bateria UNIT #3	UNIT #3	Hull In Pipe Bateria Unit	Boornazian, Bill	Hull - In Pipe Bateria Units	View
2/19/2020 13:56	Bateria UNIT #3	UNIT #3	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/4/2020 10:40	Bateria UNIT #4	UNIT #4	Hull In Pipe Bateria Unit	Boornazian, Bill	Hull - In Pipe Bateria Units	View
2/19/2020 14:05	Bateria UNIT #4	UNIT #4	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 14:35	Bateria UNIT #4	UNIT #4	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 14:00	Bateria UNIT #5	UNIT #5	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 14:02	Bateria UNIT #6	UNIT #6	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:59	Bateria UNIT #7	UNIT #7	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 13:44	Bateria UNIT #9	UNIT #9	Hull In Pipe Bateria Unit	Sutton, Eric	Hull - In Pipe Bateria Units	View
2/19/2020 12:18	MH-20889	MH-20889	Sanitary Manhole	Sutton, Eric	Generic WO	View



Maintenance History Report

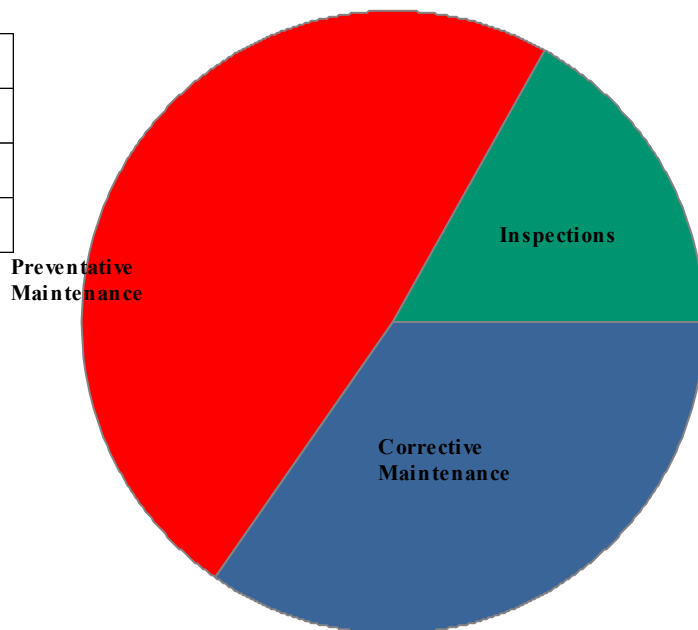
Hull Wastewater

Start Date: 2/1/2020

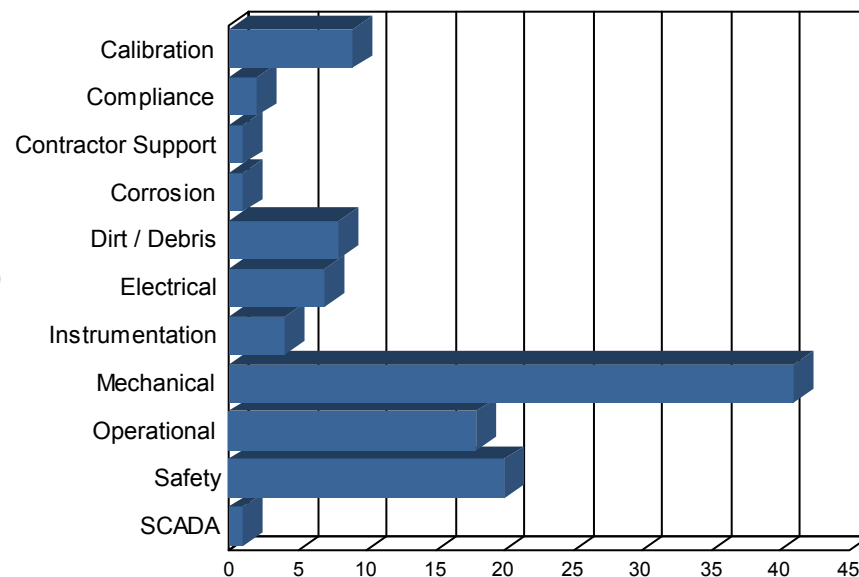
End Date: 2/29/2020

Work Order History By Type

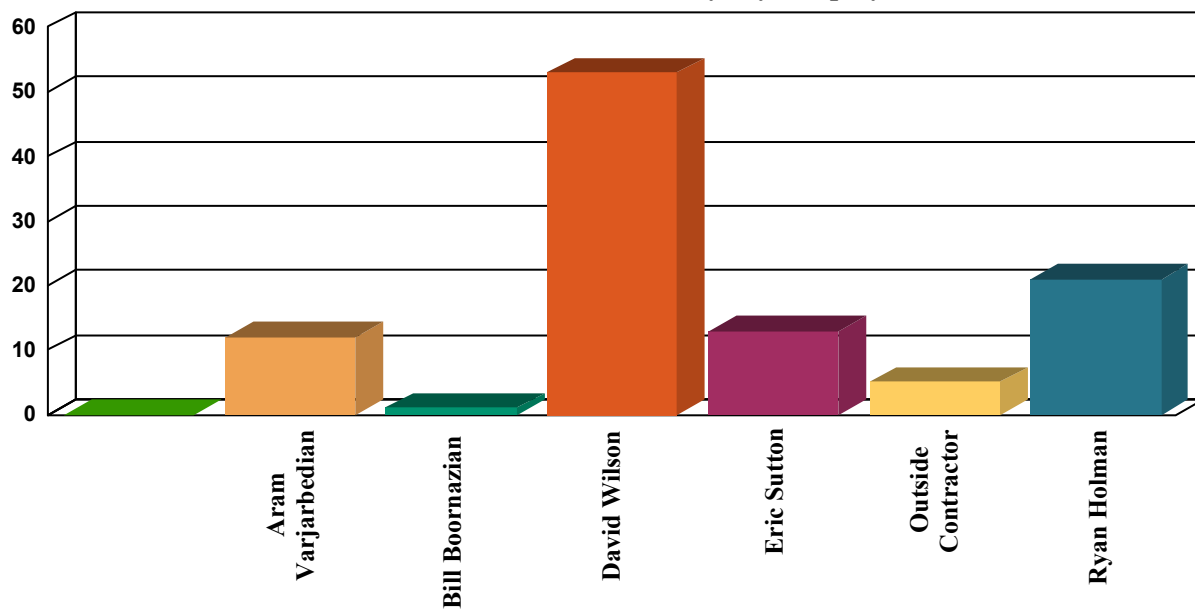
Corrective Maintenance	39
Inspections	19
Preventative Maintenance	54
Total Work Orders	112



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	12	23
Bill Boornazian	1	40
David Wilson	53	74
Eric Sutton	13	15
Outside Contractor	5	13
Ryan Holman	21	19
Unassigned	7	2
Totals	112	185

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/2/20	11558	Chlorine probe AT1	Recirc pump in tank - pull and insp	Lift rope was broken, recirc is slow. Pull pump up, add SS pull chain for lifting, clean debris in pump, add ext pipe to dischg	Aram Varjarbedian	2/2/20	Completed
2/2/20	11559	PS 6 Generator	Waterpump port leaking.	Found coolant level low in radiator while completing stations checklist. Topped off radiator and brought up to operating temp. Found vacuum plug on auxiliary port leaking and is pressed up against a bracket.	David Wilson	2/2/20	In Process
2/3/20	11570	Grit Screw Classifier	Annual inspection discrepancies	Replaced one drive belt and adjusted to 1/4" deflection. Inspected wear on screw flights. Replaced tailshaft, oil seal, and support bushing. Pressed bushing into housing and honed inner diameter for slip fit with tail shaft. Reassembled and returned to service.	David Wilson	2/6/20	Completed
2/4/20	11560	MH 20811	Aqua line/next level CCTV force main	Assisted Aqua line and next level CCTV co. Turned station 3 off to allow no flow in force main to achieve CCTV project. See pic for details.	Eric Sutton	2/4/20	Completed
2/4/20	11561	Hypochlorite Pump 1	Pumping does not match ratio setting	Check pump delivery volume against set point and found volume high with low pump setting. Scada ratio also appeared out of range, Indicative of worn pumphead tubing. Had similar issue a year ago. Change pumphead and tubing fitting. Clean equipment.	Aram Varjarbedian	2/4/20	Completed
2/5/20	11569	PS 5 Transfer Switch	Had to run twice for proper transfer	Pressed by pass transfer switch held for (15sec) generator turn on, but no transfer occurred. Repeated process again then operation was correct, under load.	Eric Sutton	2/5/20	Completed
2/5/20	11562	Health & Safety	Labeled floor hole cover with "HOLE" to show the hazard present.	Used a stencil and green spray paint to label a floor hole cover in order to show the hazard if the cover is moved or displaced.		2/5/20	Completed
2/5/20	11563	Primary Building	Lablled floor hole cover with " HOLE" to show the present hazard	Used a stencil and green spray paint to label a floor hole cover to show the hazard if the cover is removed or displaced.		2/5/20	Completed
2/5/20	11564	Primary Building	Labeled a floor hole cover with "HOLE" to show the hazard present.	Used a stencil and green spray paint to label a floor hole cover to show the hazard if the cover is removed or displaced.		2/5/20	Completed
2/5/20	11565	Health & Safety	Labeled a floor hole cover with "HOLE" to show the hazard present.	Used a stencil and green spray paint to label a floor hole cover to show the hazard if the cover is removed or displaced.		2/5/20	Completed
2/5/20	11568	Health & Safety	Labeled a floor hole with "HOLE" to show the present hazard	Used a stencil and green spray paint to label a floor hole cover to show the hazard if the cover is removed or displaced.		2/5/20	Completed
2/5/20	11566	Health & Safety	Lablled floor hole cover with " HOLE" to show the present hazard	Used a stencil and green spray paint to label a floor hole cover to show the hazard if the cover is removed or displaced.		2/5/20	Completed
2/5/20	11567	Health & Safety	Labeled a floor hole cover with "HOLE" to show the hazard present.	Used a stencil and green spray paint to label a floor hole cover to show the hazard if the cover is removed or displaced.		2/5/20	Completed

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/6/20	11571	SCADA	Airline RV50 for backup internet to access scada not working	With loss of comcast, not access into scada. Back up airline not working. Had Dave K, Jeannie D, Jackie S involved and found service had been disconnected. Worked with advantix to get service restarted. Test on 2/6 ok. Estimate hours total for all.	Aram Varjarbedian	2/6/20	Completed
2/6/20	11572	Odor Control Wet Scrubber Vessel	Annual cleaning and inspection	DW/JS LOTO of scrubber fan and tagged out hypo and caustic pumps. Completed two acid washes with 55 gallons of hydrochloric acid. Pressure washed media and vacuumed out ~40lbs of scale. Cleaned and calibrated pH and ORP probes. Returned to service. Differential gauge reading reduced by 1.5 inches of water.	David Wilson	2/6/20	Completed
2/9/20	11573	Caustic Soda Metering Pump	Pump head roller failure	Isolated caustic pump and valves. Replaced metering tube due to rigidity. Inspected pump head assembly. Inboard roller bushings failed causing metering tube to track off center. Replaced pump head. Reassembled and returned to service.	David Wilson	2/9/20	Completed
2/11/20	11576	Sump Pump	Incinerator room sump pump inoperable	Isolated sump pump. Cleaned debris from check valve, hand snaked discharge line on basement level. Disassembled sump pump volute and cleared out broken hardware. Reassembled and tested.	David Wilson	2/11/20	Completed
2/13/20	11584	Emergency Lighting & exit signs	Monthly emergency lighting inspection	During the monthly inspection the emergency lighting outside of the HVAC room did not function. (Basement Level)	Ryan Holman	2/13/20	In Process
2/13/20	11579	Emergency Lighting & exit signs	Monthly emergency lighting inspection	During the monthly inspection the emergency lighting above the door for the stairwell leading down to the garage was tested and lights did not operate.	Ryan Holman	2/13/20	In Process
2/13/20	11581	Emergency Lighting & exit signs	Monthly emergency lighting inspection	During the monthly inspection the emergency lighting above the garage door leading to the front offices did not function properly when tested. (Main Level)	Ryan Holman	2/13/20	In Process
2/13/20	11582	Emergency Lighting & exit signs	Monthly emergency lighting inspection	During the monthly inspection the emergency lighting above the door leading into the garage has only one light functioning properly. (Main Floor)	Ryan Holman	2/13/20	In Process
2/13/20	11580	Emergency Lighting & exit signs	Monthly emergency lighting inspection	During the monthly inspection the emergency lighting in the blower room did not function when tested. (2nd Floor)	Ryan Holman	2/13/20	In Process
2/13/20	11583	Emergency Lighting & exit signs	Monthly emergency lighting inspection	During the monthly inspection the emergency lighting above the Verizon equipment did not function. (Basement level)	Ryan Holman	2/13/20	In Process
2/13/20	11578	Emergency Lighting & exit signs	Monthly emergency lighting inspection.	During the monthly inspection the emergency lighting next to the lockout tagout supplies did not function. (2nd Floor)	Ryan Holman	2/13/20	In Process
2/13/20	11577	Meter #6 - 4 Gas	Replaced main board	Apollo safety replaced main board and case. Also calibrated the meter.	Outside Contractor	2/13/20	Completed

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/17/20	11585	Grit Pumps	Cleaned grit pump room.	DW/JS/RH/BB/Hoadly CSE into grit pump room. Combination truck on site to vacuum out debris. Hauled up all large objects from space. Worked debris towards truck suction pipe. Hosed down floors. LOTO of grit pumps. Installed new belts and adjusted tension on pump 2. Pump 1 belts not bad but motor plate is no longer adjustable. Cleaned sump and tested pump and high level alarm. Set up hose to flush grit system from above space.	David Wilson	2/12/20	Completed
2/18/20	11586	Sump Pump	Sump pump in the secondary gallery.	Isolated and removed the sump to unclog the suction side of the pump. Reinstalled the pump and ran it to verify that it is functioning properly.	Ryan Holman	2/18/20	Completed
2/18/20	11587	PS 5 Generator	Replaced battery on generator	Replaced battery on generator due to lagging start during run phase	Eric Sutton	2/18/20	Completed
2/20/20	11591	AST- Above Ground Storage tank for diesel fuel	Fuel cooler, heat exchanger Insp/clean	Insp and clean unit. No issues found	Outside Contractor	2/20/20	Completed
2/20/20	11589	PS 4 Wet Well	Windriver vactor WW debris	Eric Ryan windriver vactor WW debris then discharged at pit	Eric Sutton	2/20/20	Completed
2/20/20	11593	Sludge Storage Tank 2	Level probe bracket Broken	Corrected mounting anchor replaced. DW & DB.	David Wilson	2/20/20	Completed
2/21/20	11596	PS 1 Wet Well	New gravity line core	With RH and Tom Russo, coordinate pump trucks, aqua line util, and rosano-Davis, so that new core for inlet pipe could be made. Station work approx 2 hours. No issues, and 12inch core into side went well (approx 9 inches thick core. Easton Coring Co. was there.	Aram Varjarbedian	2/21/20	Completed
2/21/20	11595	PS 1 Wet Well	Insp inlet pipe for invert level and pump settings	Inspect wetwell and watch cycling as new settings made for pump on & off made, due to new inlet pipe coring planned for 2/21. AV assisted.	Eric Sutton	2/20/20	Completed
2/21/20	11592	Sludge Storage Tank 2	Tank cleaning	Wind river vac truck and CSE team cleaned out tank and flushed out sludge line to pump room	Outside Contractor	2/21/20	Completed
2/21/20	11590	AST- Above Ground Storage tank for diesel fuel	Inspect/clean duplex fuel strainer	Highland Power inspected filter strainers and cleaned. Minimal debris. Replace o-rings for covers	Outside Contractor	2/20/20	Completed
2/21/20	11594	Generator #2 - Backup Detroit 500	Insp heat exchanger on generator	Run generator up to operating temp, no issues or leaks. Temp differential is good. Due to age, heat exchanger not taken apart.	Outside Contractor	2/20/20	Completed
2/25/20	11597	Health & Safety	First Aid kit located at the top of the stairwell in headworks.	Removed old broken first Aid kit from the top of the stairwell in Headworks, and replaced it with a newer kit.	Ryan Holman	2/25/20	Completed
2/25/20	11598	PS D - DPW Stormwater Pump Station	Remove existing pumps	LOTO pump 1 and 2, disconnect wiring and remove from wet well with port engine hoist in prep for new pump install. Set trash pump for auto oper and chk at high tide. Ready all equip for Wed. AV, ES, DW.	Aram Varjarbedian	2/25/20	Completed

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/25/20	11599	PS 5 By-Pass system	Install new FM isolation valve and bypass upgrades	W&C ops designed, managed and coordinated construction efforts to install a new 14inch FM isolation valve, 8inch bypass valve and stand pipe, 2 inch drain line. Record drawing and bypass SOP to be provided. This was done to allow complete bypass of station due to existing pump conditions. DAllessandro was contractor selected for install.	Bill Boornazian	2/25/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/4/20	11208	Fire Extinguishers	WWTF Fire Extinguisher Inspections - Monthly	Inspected and cleaned all fire extinguishers.	Ryan Holman	2/3/20	Completed
2/5/20	11108	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Tested and inspected all emergency eye wash and shower stations. Also cleaned eye wash spray heads and filters to ensure good water flow.	Ryan Holman	2/2/20	Completed
2/10/20	11175	PS A	PS #A Inspection - Monthly	Inspected wet well fire extinguisher. Tested high level alarm and sump pump.	David Wilson	2/6/20	Completed
2/10/20	11164	PS 3	PS #3 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested high level alarm and sump pump.	David Wilson	2/6/20	Completed
2/10/20	11167	PS 4	PS #4 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested high level alarm and sump pump.	David Wilson	2/6/20	Completed
2/11/20	11168	PS 5	PS #5 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested high level alarm and sump pump.	David Wilson	2/6/20	Completed
2/11/20	11109	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Cleaned, inspected, and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	2/9/20	Completed
2/11/20	11171	PS 6	PS #6 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested high level alarm and sump pump. No issues found.	David Wilson	2/6/20	Completed
2/11/20	11172	PS 9	PS #9 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested high level alarm and sump pump.	David Wilson	2/6/20	Completed
2/13/20	11112	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	Tested all emergency lighting. 7 of which are not functioning properly.	Ryan Holman	2/12/20	Completed
2/13/20	11221	Truck 2 - 2009 Chevy 2500 HD	Monthly vehicle inspection on do-Forms	Completed annual state safety inspection. Receipt submitted.	David Wilson	2/3/20	Completed
2/16/20	11229	Truck 3 - 2015 Chevy 3500 HD	Monthly vehicle inspection on do-Forms	Inspected vehicle and cleaned interior.	David Wilson	2/3/20	Completed
2/17/20	11163	PS 1	PS #1 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested high level alarm and sump pump. No issues found.	David Wilson	2/6/20	Completed
2/18/20	11110	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected, cleaned, and tested all emergency shower/ eyewash stations.	Ryan Holman	2/16/20	Completed
2/21/20	11230	Truck 4 - 2015 Nissan Frontier	Monthly vehicle inspection on do-Forms	No issues, 96500 miles	Aram Varjarbedian	2/3/20	Completed
2/23/20	11211	Truck 1 - 2010 Dodge Ram 1500	Monthly vehicle inspection on do-Forms	Cleaned and inspected vehicle. No new issues. State inspection due by end of month.	David Wilson	2/3/20	Completed
2/25/20	11111	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Tested and inspected all emergency eye wash and shower stations.	Ryan Holman	2/23/20	Completed
2/28/20	11223	Universal waste area	Universal Waste Storage Area Inspection	Insp ok.	Aram Varjarbedian	2/11/20	Completed
2/28/20	11222	Waste Oil Storage	Waste Oil Area Inspection	Inspected	Aram Varjarbedian	2/11/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/2/20	11127	Mechanical Screen & Washpress System	Monthly Maintenance	Cleaned all scrapers and inspected hardware. Inspected motors and gearboxes. No issues found.	David Wilson	2/3/20	Completed
2/2/20	11243	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set fluid level in all online gearboxes. GT1- 3gal, PC2- good, SC2- 2qt, SC1- 1qt.	David Wilson	2/2/20	Completed
2/2/20	11228	Chlorine probe ATI	ATI, change membrane	Tracking ok, membrane not changed. Slope 297 ok	Aram Varjarbedian	2/1/20	Completed
2/2/20	11227	Chlorine probe ATI	Change electrolyte	Tracking ok, membrane not changed. Slope 297 ok Adjust to lab result. Lower by 0.2ppm.	Aram Varjarbedian	2/1/20	Completed
2/5/20	10274	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Checked all fluid levels. Brought up to operating temperature and recorded all run data. No issues found.	David Wilson	9/23/19	Completed
2/6/20	10958	Grit Screw Drive	Grit Screw Drive PM - Quarterly	Inspected packing gland drip rate. Greased pillow block bearings. Due to corrosion, SEW gearbox is not serviceable. No visible fluid loss.	David Wilson	1/31/20	Completed
2/6/20	11121	Grit Screw Classifier	Grit classifier Oil Change - Annual	Completed oil change and annual inspection.	David Wilson	2/1/20	Completed
2/6/20	11122	Grit Screw Drive	Grit Screw Drive Oil Change - Annual	Not serviceable.	David Wilson	2/1/20	Completed
2/6/20	11137	Secondary Clarifier 1	Clean Launder Screens - Quarterly	Launder screen not installed.	David Wilson	2/3/20	Completed
2/6/20	11231	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms in the plant.	Ryan Holman	2/2/20	Completed
2/7/20	11117	Generator #1- Emergency Kohler 750	Generator - Monthly Load Test	Utility power loss.	David Wilson	2/2/20	Completed
2/10/20	11242	Generators "All Pump Station"	Generator - Monthly Load Test		Eric Sutton	2/2/20	Completed
2/10/20	11215	PS Trailer Mounted Generator	Generator - Monthly Load Test		Eric Sutton	2/2/20	Completed
2/10/20	11118	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Checked all fluid levels. Recorded all run data. No issues found.	David Wilson	2/10/20	Completed
2/10/20	11162	PS 1	PUMP STATIONS - QUATERLY PM'S	Exercised all valves. Inspected seals, hubs and couplings. Lubed all bearings. No issues found. Rotated dehumidifier 180 degrees.	David Wilson	2/4/20	Completed
2/10/20	11174	PS A	PUMP STATIONS - QUATERLY PM'S	Exercised all valves. Dry pit submersible pumps. Installed new pressure gauge on pump 2 discharge. Both pumps making about 20psi.	David Wilson	2/4/20	Completed
2/10/20	11165	PS 3	PUMP STATIONS - QUATERLY PM'S	Exercised all valves. Inspected seals, hubs and coupling. Lubed all bearings.	David Wilson	2/4/20	Completed
2/11/20	11114	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Checked all fluid levels. Recorded all run data. Cleaned strainer basket. No issues found.	David Wilson	2/10/20	Completed
2/11/20	11169	PS 5	PUMP STATIONS - QUATERLY PM'S	Exercised all valves. Inspected seals, hubs and coupling. Lubed a bearings. No issues found.	David Wilson	2/4/20	Completed
2/11/20	11170	PS 6	PUMP STATIONS - QUATERLY PM'S	Exercised all valves. Inspected all seals, hubs and coupling. Lubed all bearings.	David Wilson	2/4/20	Completed
2/11/20	11173	PS 9	PUMP STATIONS - QUATERLY PM'S	Exercised most valves. Inspected seals, hubs and couplings. Lubed all bearings.	David Wilson	2/4/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/13/20	11239	Generators "All Pump Station"	Generator Weekly - Test Run no load	Inspected all fluid levels. Ran generator up to operating temp. Station 5 generator was slow to crank. Took two tries to fire. Possibly a battery issues. The battery is almost four years old and we had issues with the trickle charger. Station 9 gridbee aerator is excessively loud. It works but was measured at 93db.	David Wilson	2/10/20	Completed
2/14/20	11124	Influent Sluice Isolation Gate	Weekly operate through full range	Ran influent gate in hand through its full range	Ryan Holman	2/12/20	Completed
2/14/20	11232	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms.	Ryan Holman	2/9/20	Completed
2/16/20	11245	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set all online clarifier gearbox fluid levels. GT1- 3gal, PC2- good, SC1- 1.5qt, SC2- 1qt.	David Wilson	2/16/20	Completed
2/16/20	11244	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set all online clarifier gearbox fluid levels. GT1- 3gal, PC2- good, SC1- 1.5qt, SC2- qt.	David Wilson	2/9/20	Completed
2/16/20	11212	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		David Wilson	2/10/20	Completed
2/17/20	11166	PS 4	PUMP STATIONS - QUATERLY PM'S	Pump 2 suction valve was able to be exercised. Inspected seals, hubs and coupling.	David Wilson	2/4/20	Completed
2/17/20	11225	Chlorine probe AT1	Weekly calibration	Cal against lab. Slight adj down. Slope is good. Recirc pump ok	Aram Varjarbedian	2/3/20	Completed
2/17/20	11226	Chlorine probe AT1	Weekly calibration	Chk Hi, slope ok 335 ok	Aram Varjarbedian	2/17/20	Completed
2/18/20	11119	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Checked all fluid levels. Recorded all run data. Replaced absorbent mats. No issues found.	David Wilson	2/17/20	Completed
2/18/20	11115	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Checked all fluid levels. Recorded all run data. Cleaned out strainer basket. No issues found.	David Wilson	2/17/20	Completed
2/18/20	11213	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	2/17/20	Completed
2/18/20	11240	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	2/17/20	Completed
2/18/20	11235	Meters - 4 Gas Confined Space #2	4 gas meter calibration - monthly	Inspected meter and tested calibration. No issues found.	David Wilson	2/1/20	Completed
2/18/20	11224	Confined Space 4 Gas Meter	monthly calibration	Inspected meter and tested calibration. No issues found.	David Wilson	2/27/20	Completed
2/18/20	11209	Meters - 4 Gas Confined Space #1	4 gas meter calibration - monthly	Inspected meter and tested calibration. No issues found.	David Wilson	2/1/20	Completed
2/18/20	11216	Meter #2 - 4 Gas	4 Gas Meter #2 Calibration - Monthly	Inspected meter and tested calibration. No issues found.	David Wilson	2/27/20	Completed
2/18/20	11217	Meter #3 - 4 Gas	4 Gas Meter #3 Calibration - Monthly	Inspected meter and tested calibration. No issues found.	David Wilson	2/27/20	Completed
2/18/20	11218	Meter #4 - 4 Gas	4 Gas Meter #4 Calibration - Monthly	Inspected meter and tested calibration. No issues found.	David Wilson	2/27/20	Completed
2/18/20	11219	Meter #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Inspected meter and tested calibration. LEL failed. Exchanged sensor from a known good unit. Issue did not move to other meter. Sensor board failure.	David Wilson	2/27/20	Completed
2/18/20	11220	Meter #6 - 4 Gas	4 Gas Meter #6 Calibration - Monthly	Inspected meter and tested calibration. No issues found.	David Wilson	2/27/20	Completed
2/19/20	11125	Influent Sluice Isolation Gate	Weekly operate through full range	Operated the influent gate in hand and inspected the gates full range of motion.	Ryan Holman	2/19/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
2/19/20	11138	Secondary Clarifier 2	Clean Launder Screens - Quarterly	Cleaned screen with 10ft clam shovel.	David Wilson	2/3/20	Completed
2/19/20	11139	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly	Cleaned and inspected LDO probes. Calibrated probes to comparator.	David Wilson	2/4/20	Completed
2/19/20	11140	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly	Cleaned and inspected LDO probes. Calibrated probes to comparator.	David Wilson	2/4/20	Completed
2/20/20	11588	PS 5 Wet Well	Windriver vactor WW debris	Eric Ryan windriver vactor WW debris then discharged at pit	Eric Sutton	2/20/20	Completed
2/22/20	11233	High level floats	Weekly High Float Alarm test	Tested all plant alarms.	Ryan Holman	2/16/20	Completed
2/23/20	11246	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set all online clarifier gearbox fluid levels. GT1- 3gal, PC2-good, SC1- 1.5qt, SC2- 2qt.	David Wilson	2/23/20	Completed
2/26/20	11126	Influent Sluice Isolation Gate	Weekly operate through full range	Ran the influent gate in hand while JB watched from SCADA	Ryan Holman	2/26/20	Completed
2/27/20	11234	High level floats	Weekly High Float Alarm test		Eric Sutton	2/23/20	Completed
2/27/20	11241	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	2/27/20	Completed
2/27/20	11214	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	2/27/20	Completed
2/27/20	11141	Effluent Pumps	Effluent Pump - Monthly	Each pump exercised throughout the month. Pump 3 output is degraded.	David Wilson	2/15/20	Completed