



HULL WATER POLLUTION CONTROL FACILITY

May 2020

MONTHLY OPERATING REPORT



NPDES NO. MA0101231

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

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Cover pictures:

[top] Hull WPCF sign – freshly painted by Ken Kaplan

[bottom] Screenings box set up for Operations building – upcoming headworks bypass

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 May 2020.

- No lost-time incidents for the month of May.
- Covid-19 Safety planning and operations: Return to nearly regular daily operations with minor separation of staff/reduced staff scheduling. All projects scheduled projects were implemented, following Town, State and Company mandated safety protocols due to the Covid-19 Emergency. Safety supplies, signage, procedures related to Covid-19 worked on in May.
- There were 149 effluent samples taken in the month of May. Please see page (8) for details. There was one daily effluent permit exceedance for fecal coliform on May 12th.
- The average daily flow for the month was 1.37 MGD. A total of 3.25 inches of rainfall was recorded. There were no significant rain events that occurred during the month. The late April wet weather flows decreased in early May.
- The plant and collection system odors continued to be very low [expected for this time of year]. The Bioxide system was turned on 5/22/20. The Bioxide storage tank had to be moved to accommodate the new system controls. Chemical feed was started at low feed rate, based upon H₂S results seen at XYZ/Nantasket manhole.
- The 05M Asset Management Accounts checkbook summary and the completed planned expenses sheets are attached [updated 7/2/20]. The close out of the year 5 accounts is nearly complete.
- There were 5 grinder pump call outs during the month of May with pump replacements.
- W&C O&M continued to increase their work load in May assisting on many Engineering projects including: SSES yard piping test pit construction support and logistics, and the extension of the Interceptor lining work for the headworks effluent pipe coordination with engineering and GMPS. Additional coordination was also spent on the Atlantic Ave project and coordination planning for the headworks and pump station structural work.
- O&M in May provided support for the setup of the screening box and designed rag rakes for the box that Boston Forging and welding made as well as procured a portable stair setup.
- There was ongoing work on the Artificial Intelligence project, as well as the associated data management and daily rounds improvements with the “DMZ” computer capabilities.
- All Pump station wet wells were inspected. PS #5 AND LS A wet wells were cleaned out.

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

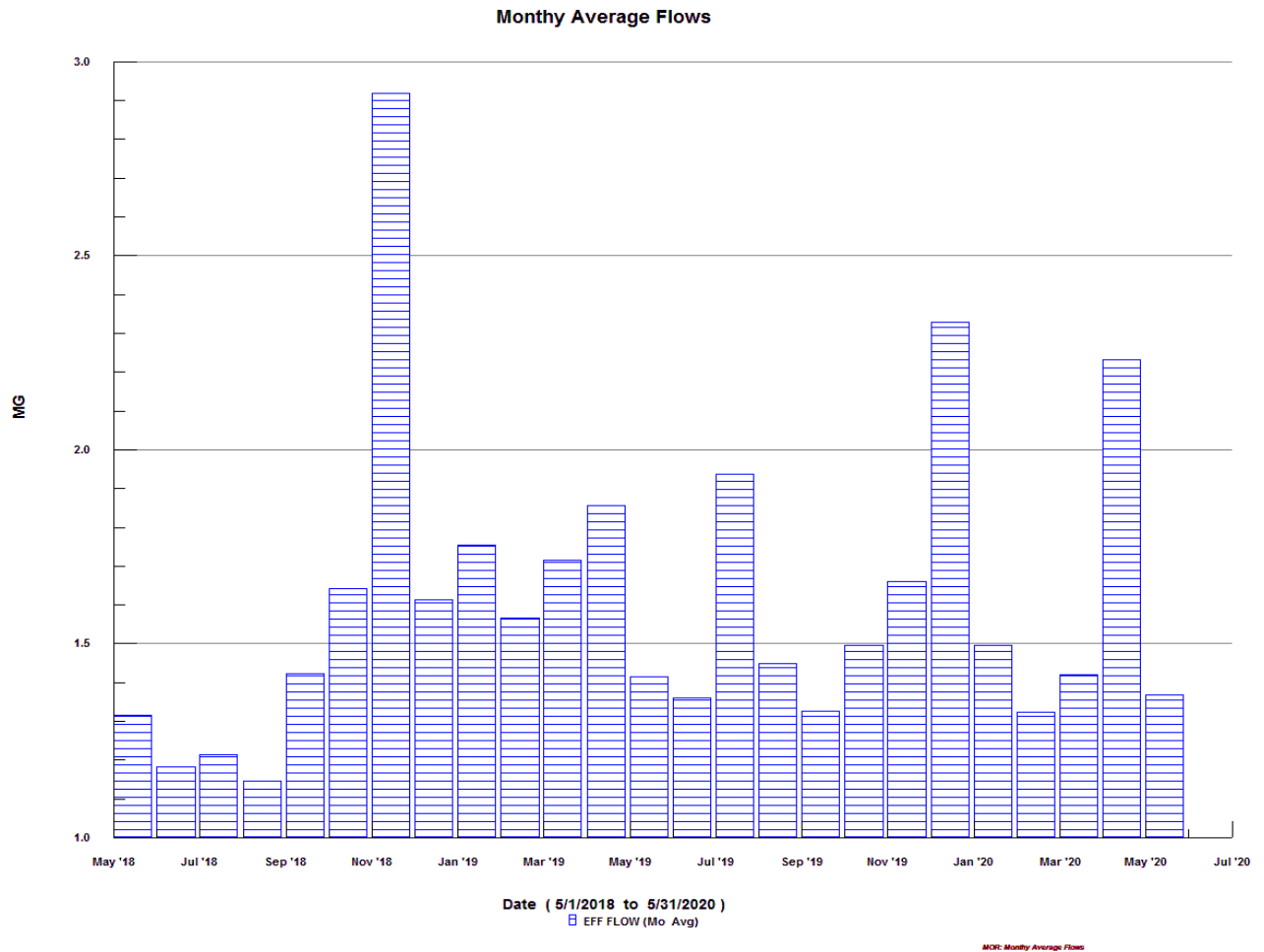


Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
May 2018	1.315	1.700*	1476	2140	98	179
May 2019	1.416	1.733*	2272	4134	44	100
May 2020	1.367	1.547*	1375	2064	32	92

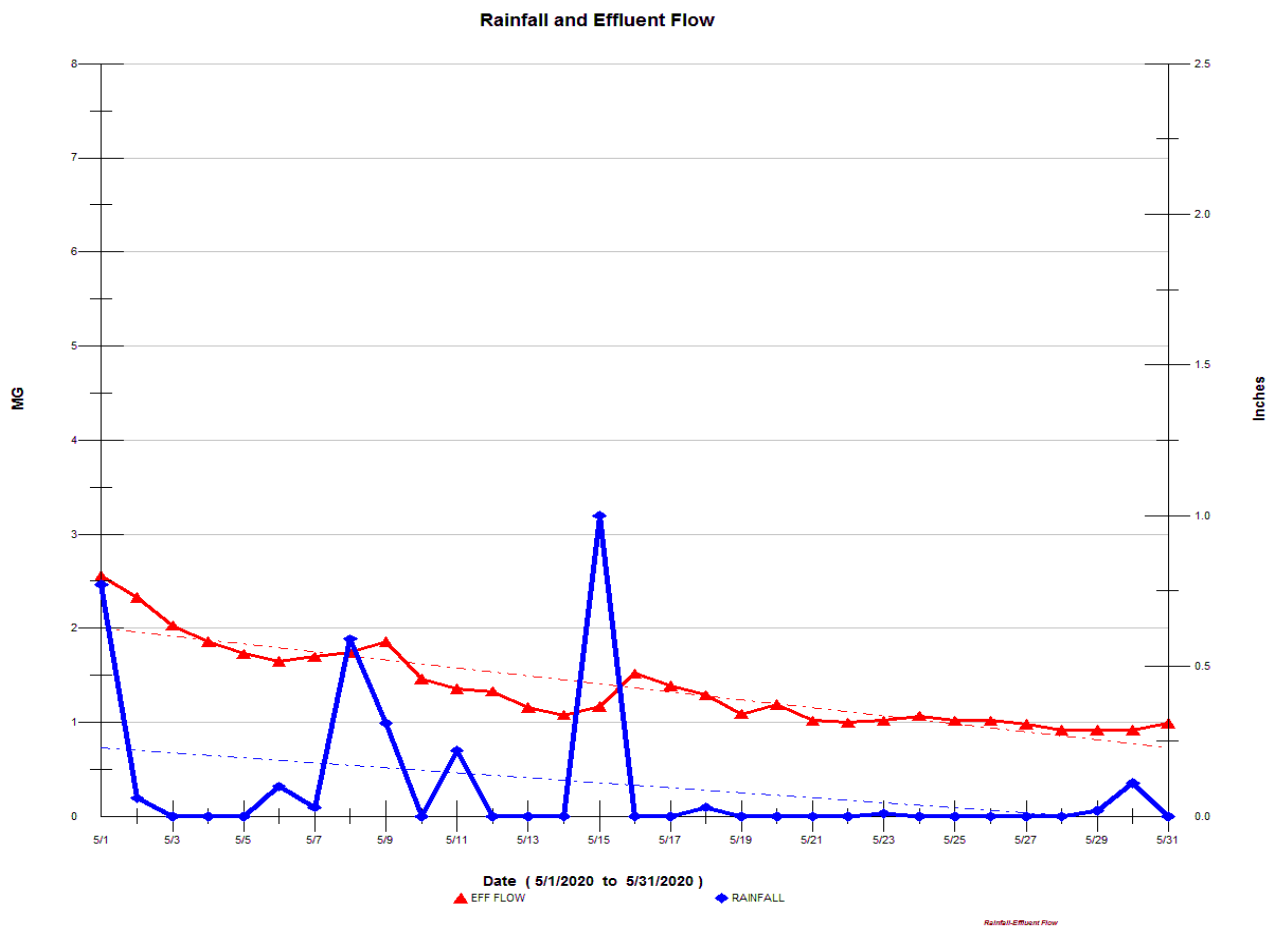
* Meter drift – influent flow meters are strap on doppler flow meters, and the internal pipe condition prevents getting a strong signal. The staff utilizes the area velocity meter in the aeration tank inlet channel as needed. All reported loadings are based on the effluent flow meter. There is an additional 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.

2.1 AVERAGE EFFLUENT MONTHLY FLOWS – TWO YEAR COMPARISON

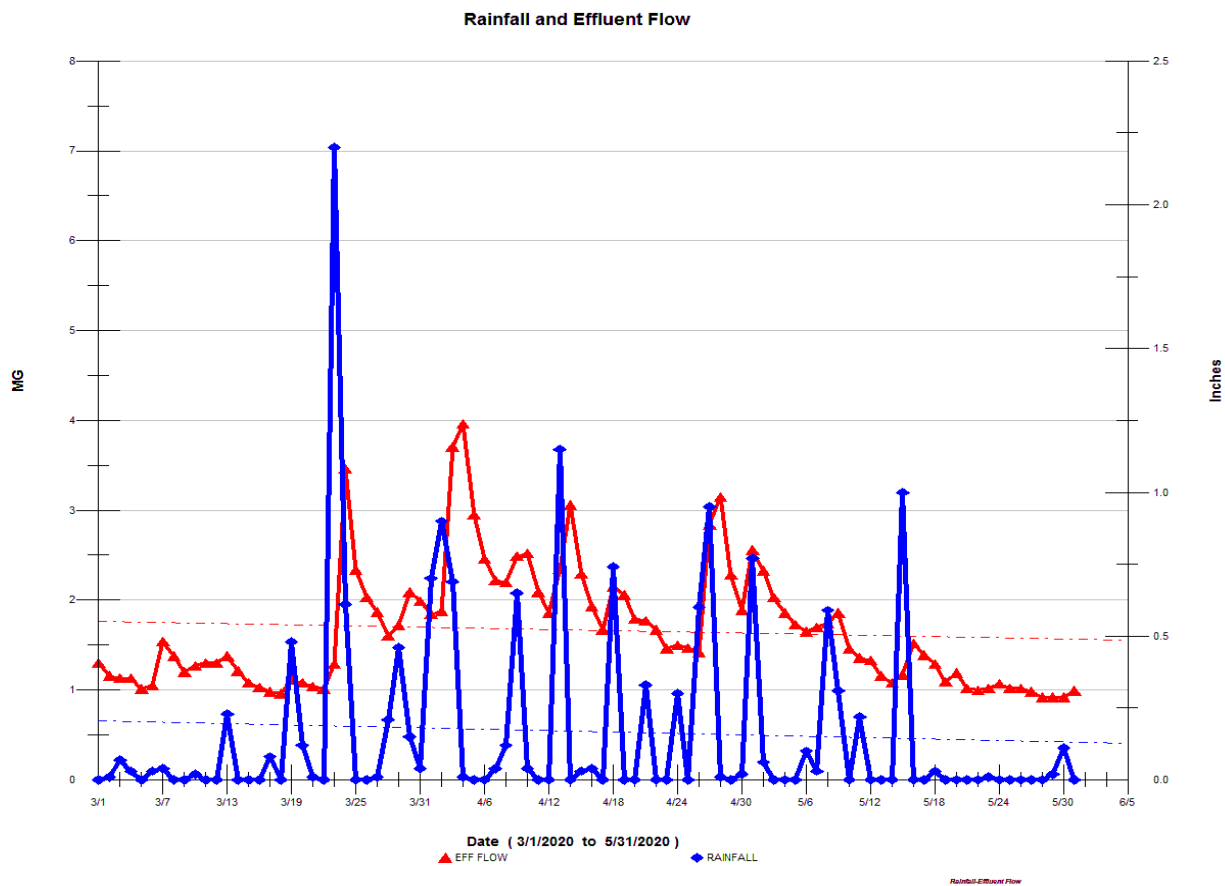


Monthly average flow for May was 1.37 MGD. The total precipitation for the month was 3.25 inches. The graph shows the 2-year summary of the monthly average flows.

2.2 MONTHLY SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



This graph shows the days where plant flows were higher due to rainfall [Blue Peaks]. This graph provides the time where flows increased due to the wet weather conditions. There were very few wet days in May and the rainfall had a low impact on plant flows. Recent collection system work to reduce inflow and infiltration [I&I] out in the collection system have had positive results and lowered daily plant flows.



This graph shows the last 3 months: March, April, May and the impacts of rainfall/precipitation on plant flows. May was a dry month.

3 COMPLIANCE



➤ Plant Effluent

There was one daily permit exceedance in the month of May for fecal coliform On May 12, 2020.

Max Daily Permit limit: 260 CFU/100mL; Result: 350 CFU/100mL

- It is unclear why the high result was seen for the fecal coliform, and not the enterococci, as the chlorine residual at the time of sample collection was well above the daily target, and there had been several weeks without any issues. A review of the plant flow, sodium hypochlorite dosage and pumping, sample collection, and lab QA/QC was performed, with nothing found. The enterococci sample result for the sample collected at the same time was very low, <10 CFU/100mL. A follow-up sample was collected for fecal coliform and analyzed on 5/14. The results were compliant, <10 CFU/100mL. All regulatory agencies were notified.
- Plant process conditions continued to be stable. Sludge wasting rates were higher, due to taking tanks off-line and cleaning the solids out. Additional sludge trucks were scheduled to empty out the gravity thickener, as odors were a concern. The facility's sludge wasting and thickening were transitioned over to the underground sludge holding tank and the rotary drum thickener. The thickened sludge is currently being sent to the above ground sludge storage tank. Sludge settleability remains good and no chlorination of the RAS needed. The aeration process mode remained in contact stabilization mode, with limited flow into aeration tank #1 and there were no changes in the current flow splits. The aeration blower mode was put to continuous run mode, as the water temperatures and microbial activity was increasing. [pictured process tanks – May typical]



Aeration tank #1- moderate foam

Aeration Tank #3

Secondary Clarifier

- A Copy of the NPDES report for May 2020 was submitted to the EPA & DEP and then forwarded to the Hull Sewer Dept.
- CMOM 2019 report reviewed as requested for the annual report.
- Corporate team [Frank C & Alan F] - ongoing 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.
- SPCC: Regular monthly inspection of the above ground fuel storage tank [AST], fuel day tank, and waste oil storage areas was completed. Updated file.
- There was one small release of sewage [less than 2 gallons] at 29 Roosevelt reported on Saturday 5/16/20, due to broken service lateral. It was found that the water service crosses over the sewer service in area of break and the break most likely was due to combination of factors due to prior utility construction in that area and a large boulder on the pipe in the area of the break. The homeowner indicated that Aquarion Water had replaced lead water service 1-1/2 years ago. Also, there was recent gas main replaced in street above sewer service. Aqualine Utility was contracted by the HSD [John S] to repair the service that evening. The downstream catch basin was vacuumed out and cleaned. A full SSO report was prepared and submitted.

Completed repair



Small leak from property to street



Downstream catch basin that was cleaned out



Aqualine Utility Contracting performing the repairs, and conditions found in the trench that caused the break

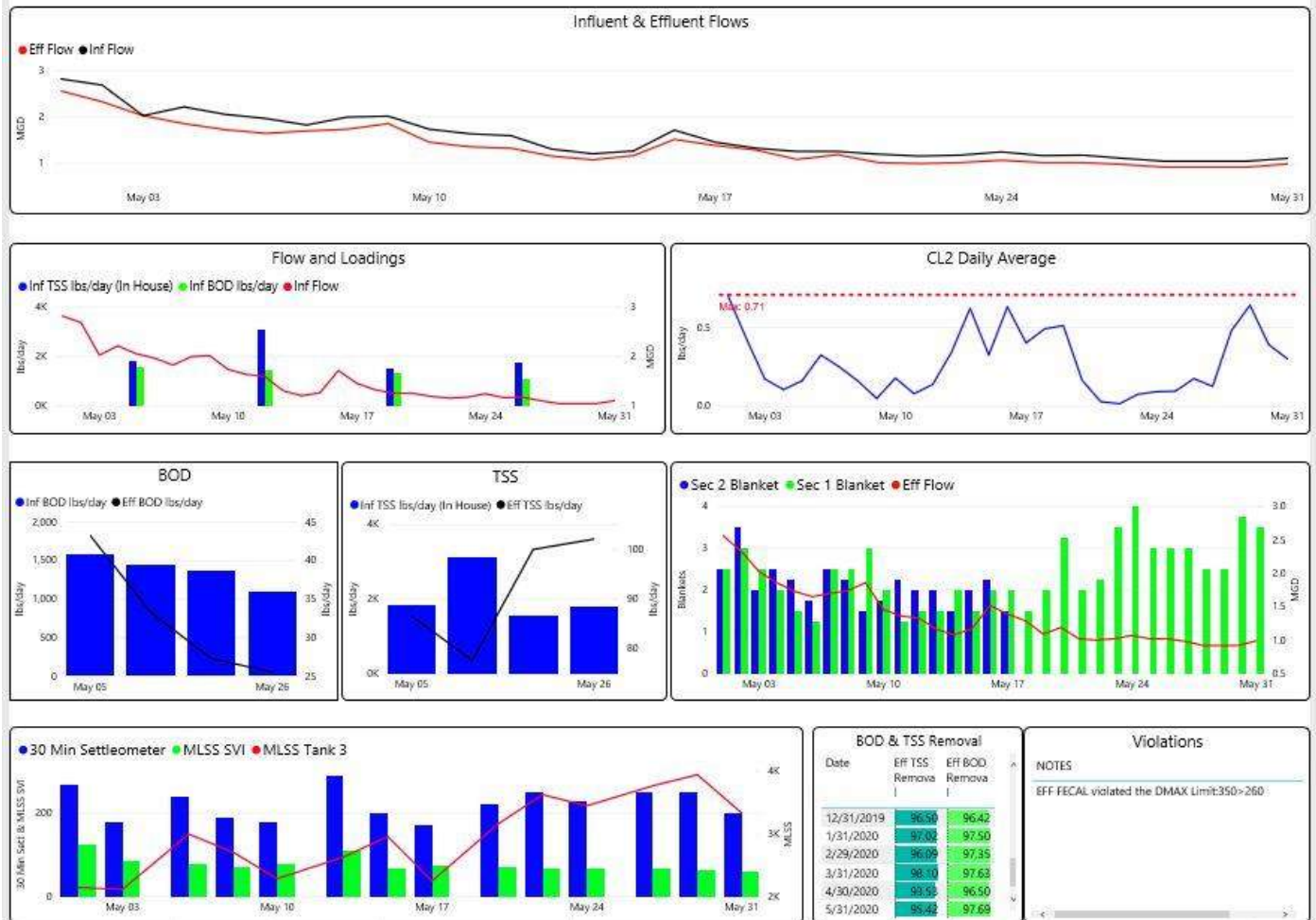




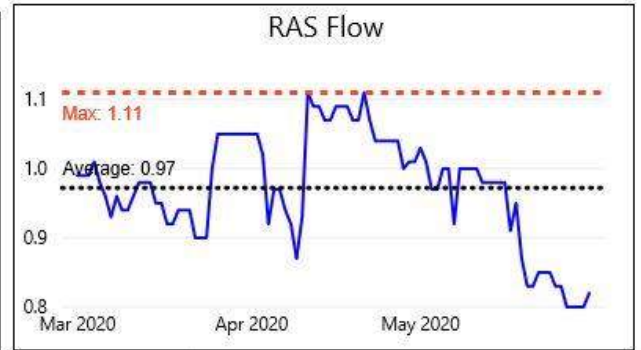
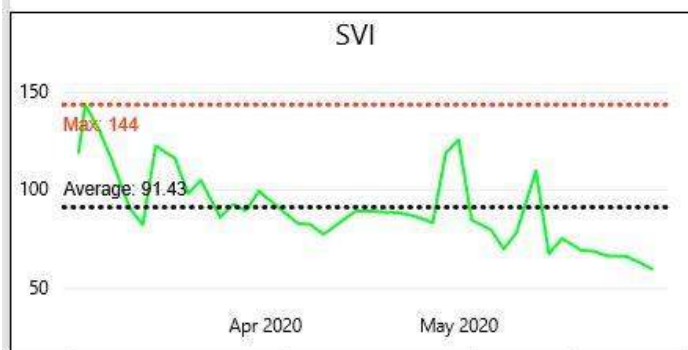
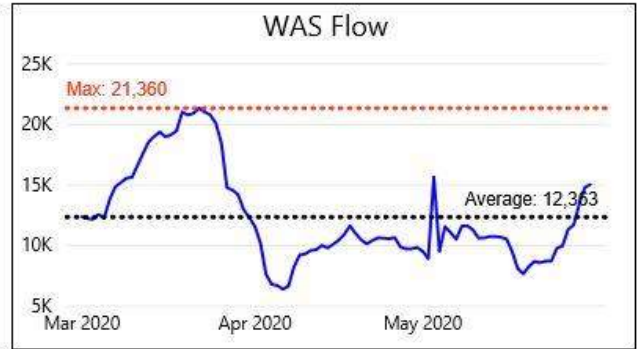
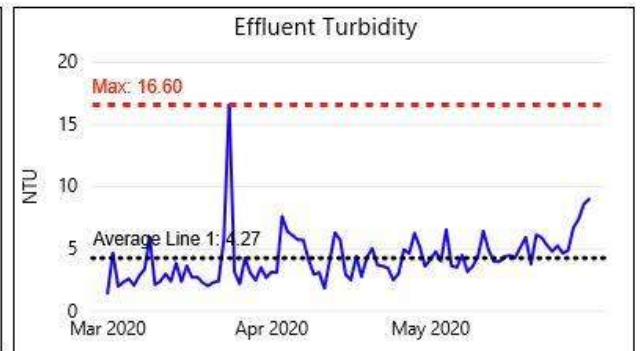
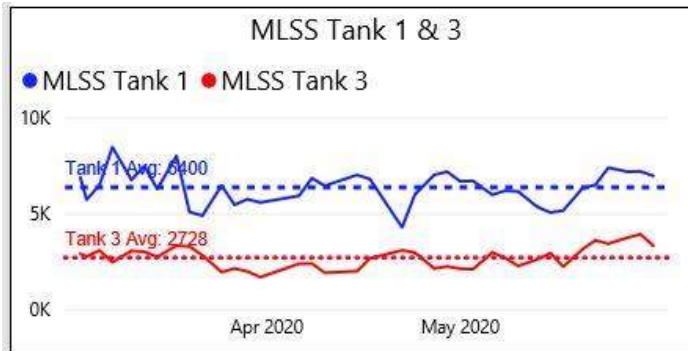
Hull Wastewater Treatment Facility

5/1/2020

5/31/2020



Process Summary graphs from power BI – May 2020.



Graphs shows trending of secondary processes using Power BI for 3-month period ending on 5/31/20. The tank solids levels under aeration are stable. SVI sludge volume index is trending down due an older sludge under aeration.

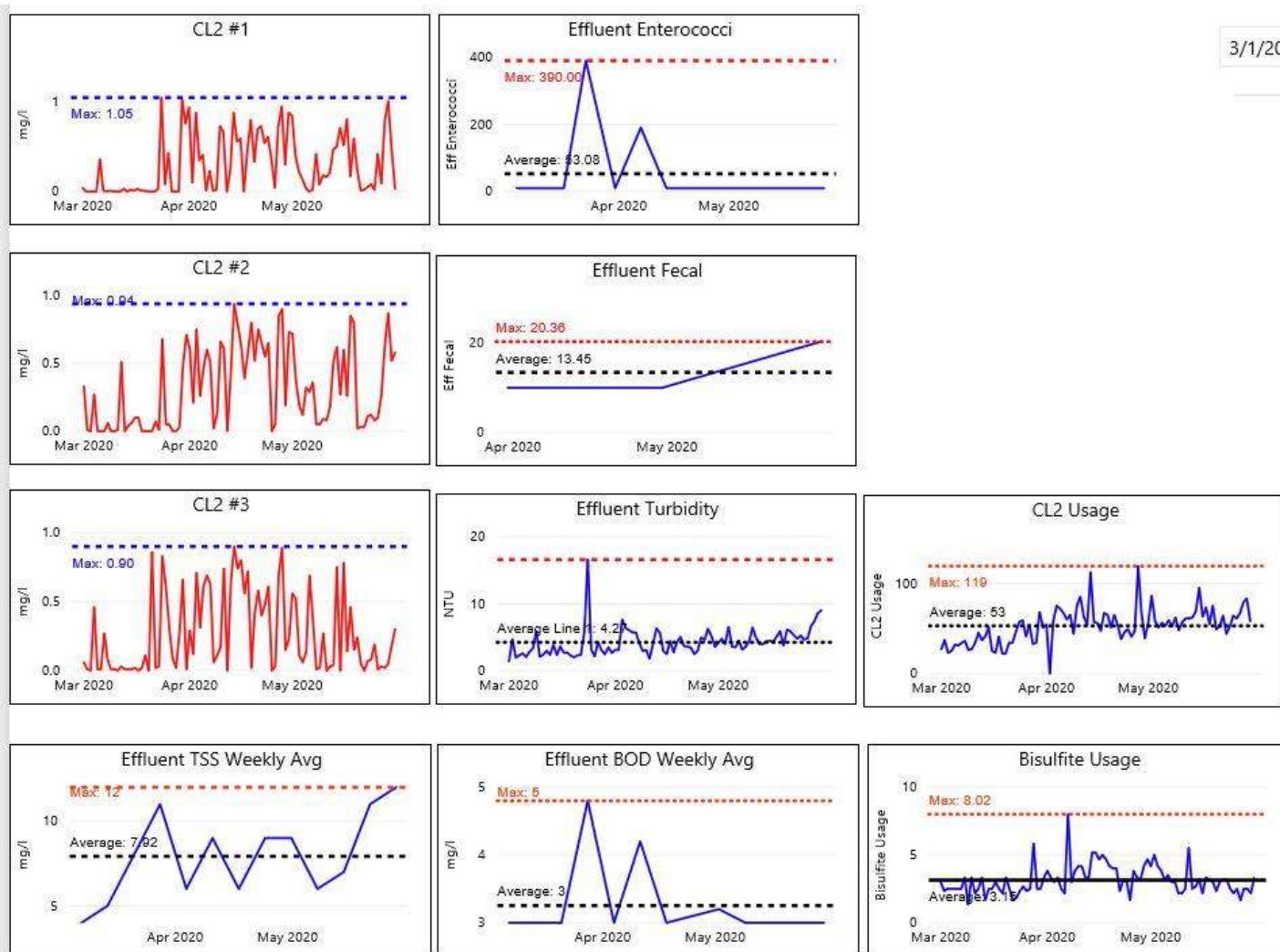
4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY – MAY 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	9.0	12.0	12.0	4	0
Eff TSS	LBS			1152	768	1 X Week	91.6	77.6	102.1		0
% TSS Rem	%		85			1 X Month	95.4				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	32.3	25.5	43.3		0
% BOD Rem	%		85			1 X Month	97.7				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.28	0.02	0.71	93	0
Eff Fecal	#/100 ML	260			88	1 X Week	20	10	350	5	1
Eff pH	SU	8.5	6.5			1X Daily	7.0	6.8	7.4	31	0
Enterococci	CFU/100 ML	276			35	1 X Week	10	10	10	4	0

There were 149 effluent samples taken in the month of May.

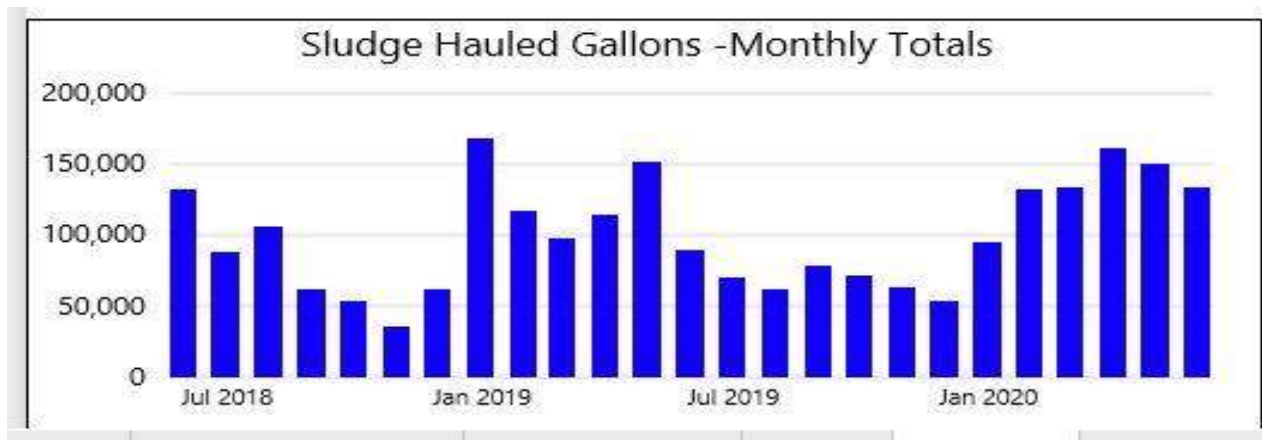


Power BI graphs showing effluent compliance for the last 3 months, chlorine residuals, effluent compliance, & chemical use.

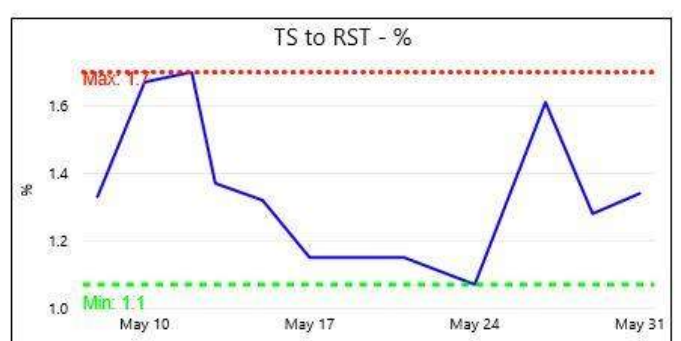
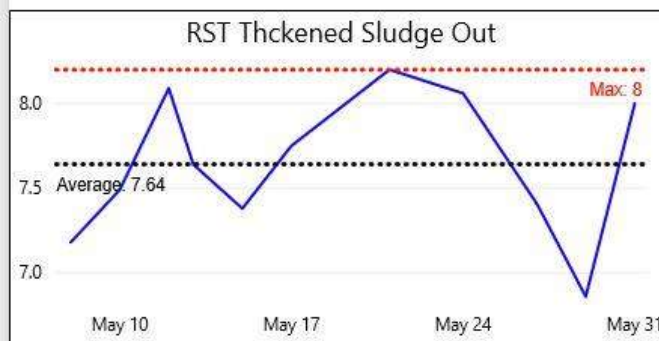
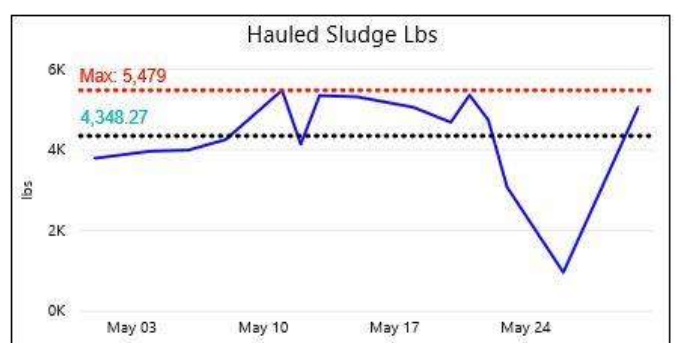
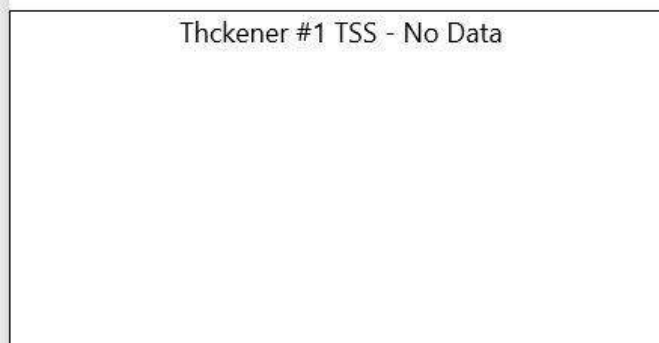
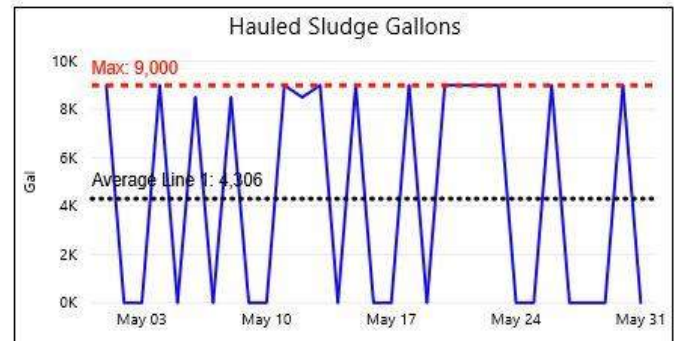
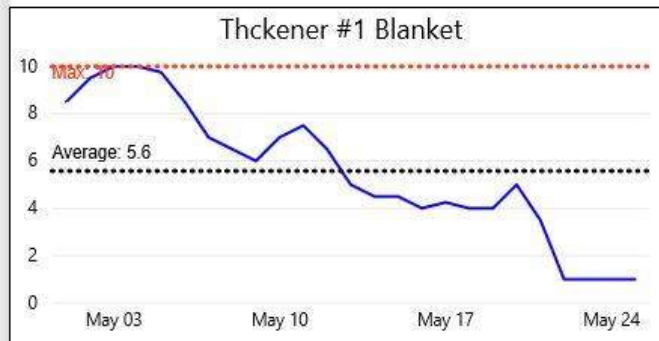
Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
May 2018	40.77	132,100
May 2019	43.89	90,000
May 2020	42.38	133,500

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



Additional Power BI graphs for sludge solids & gallons hauled for May

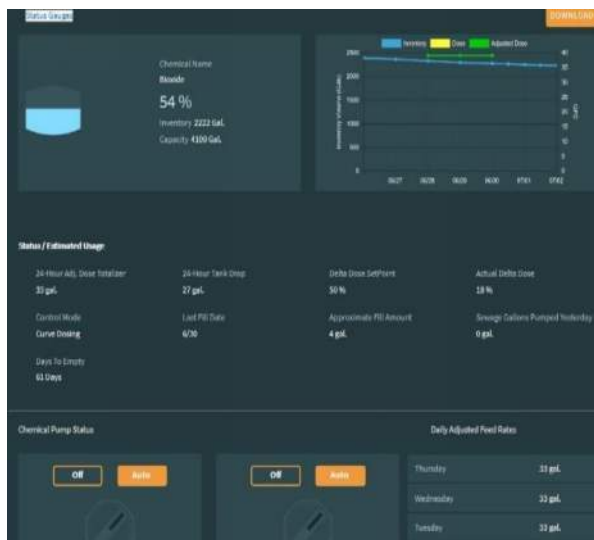
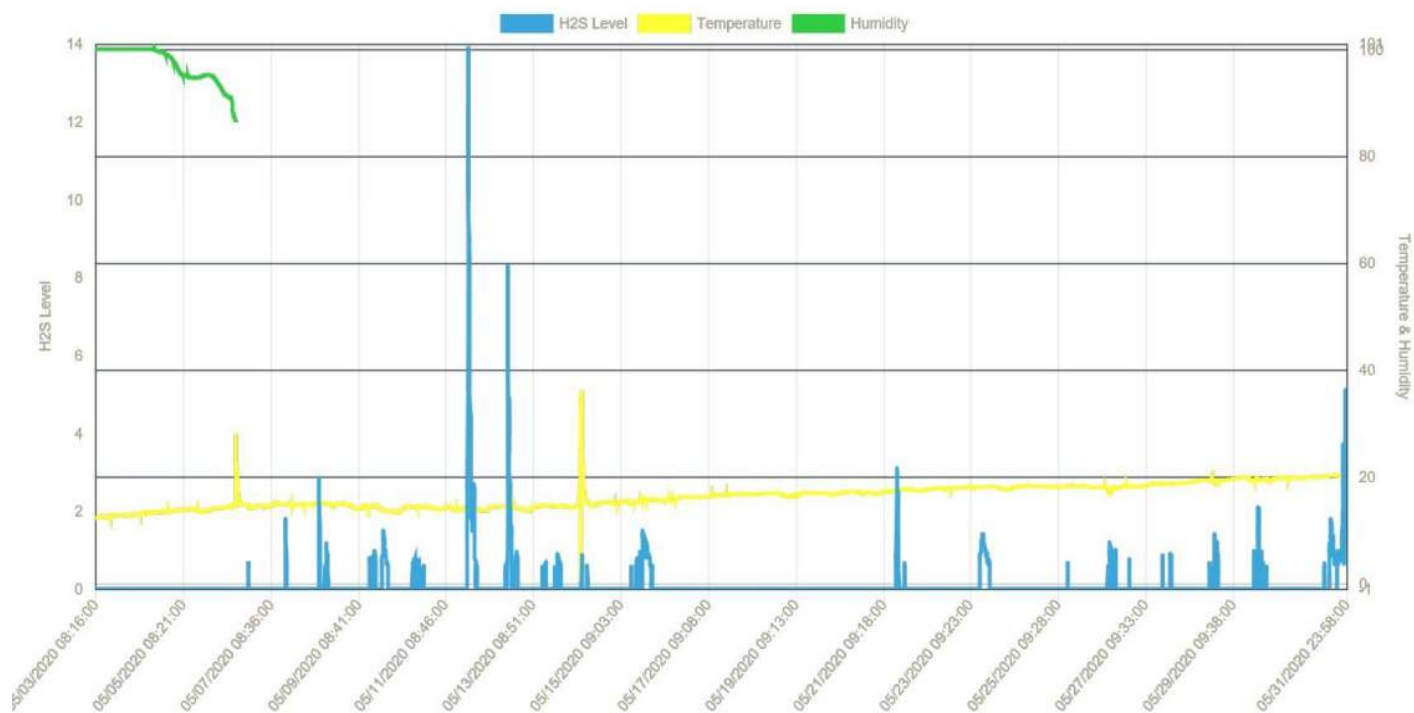


5 ODOR CONTROL

There were no odor complaint calls during the month of May. The gravity thickener and primary clarifier both were on-line for most of the month, and the tanks were taken out of service in late May. Sludge thickening was transitioned over to the rotary drum thickener. Other plant operations no changes – i.e. scum well pumping, tank cleaning, aeration trough flushing was conducted regularly to avoid/minimize odors.

- The Evoqua system controls in place and on-line for remote monitoring of the odor loggers and the chemical feed system adjustments. The bulk storage tank had to be moved slightly to accommodate the new controls. The DPW & W&C O&M tech support assisted once Evoqua pumped out the tank. Several visits by Evoqua to assist with data logger set up at the “XYZ-Nantasket” manhole. The second unit installation is still pending due to the on-going manhole rehab project along Nantasket Ave near Water Street.
- “In-Pipe” bacteria addition continued with all 24 Microbe Dosing Stations [MDU] operational. The full monthly bacteria unit replacements were completed on 5/6/20. 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 5/19/20.
- Mixing systems/aerators all functional at the pump stations, except for pump station #3. A replacement compressor is needed at PS #1.
- New Scrubber hydrogen sulfide monitoring units [H₂S] are recording and being trended on the odor scrubber for monitoring inlet and outlet H₂S levels. Continue to work on some calibration issues with the probes.

[pictured below: trending graphs for H₂S levels recorded from the vapor link system cellular at manhole at Nantasket Ave and XYZ Street, & Bioxide tank level at PS3, cellular transmitter at XYZ manhole]



6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

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

Key items of note are listed below.

- All pump station & generator #2 batteries replaced [part of on-going PM program when the battery age is at 4-year service life]



- Gravity thicker tank bottom cleaning completed with Hoadley vector truck.



- Primary scum tank cleaning completed with Hoadley vector truck.

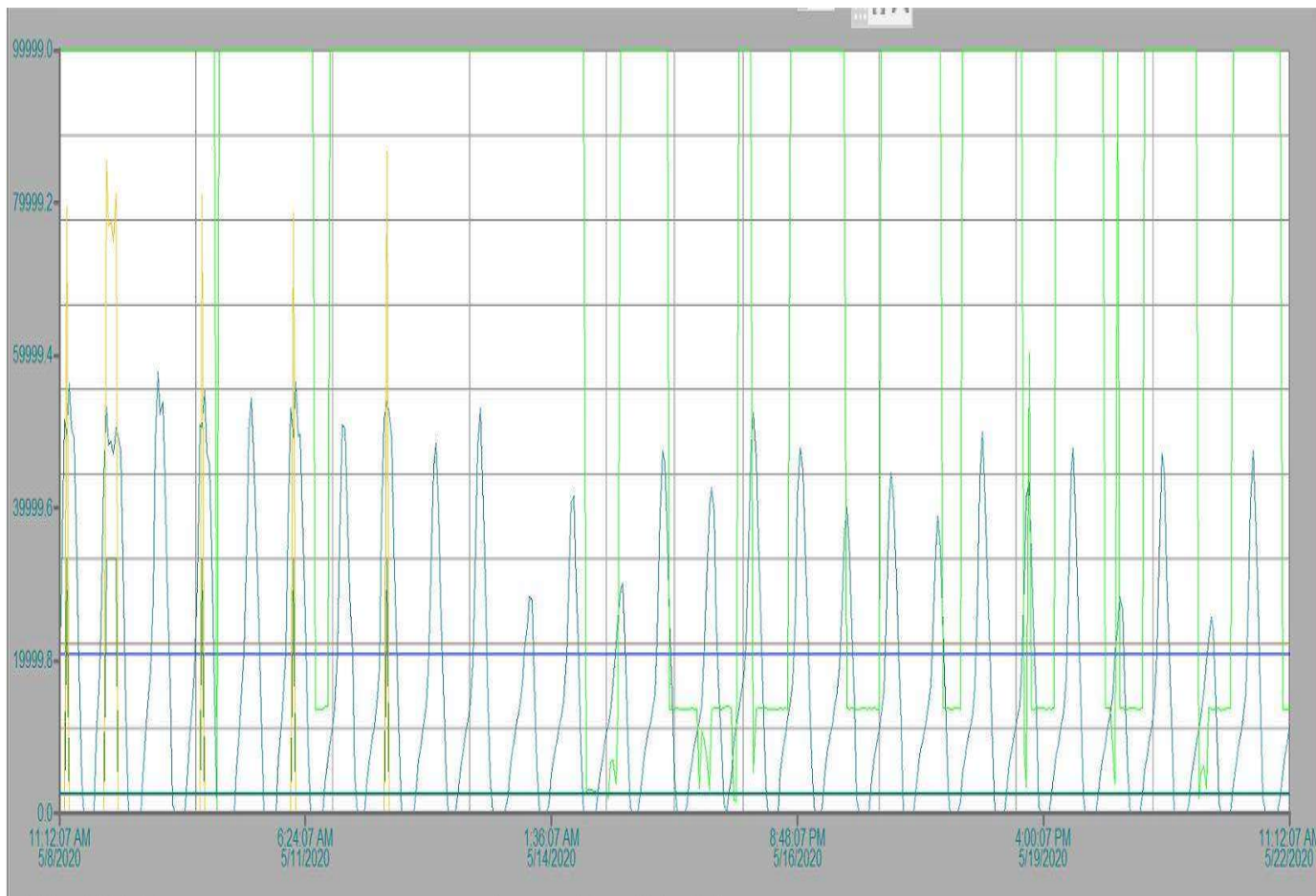


- D Street – removed existing “duckbill” check valve and install “checkmate” check valve internally at end of pipe, assisted by W&C O&M Support.



- K Street checkmate check valve installed in manhole at Cadish & K Street. Plant staff & O&M Support.





- Trend data at D Street pump station after the K Street checkmate was installed. Significant decrease in flow and pumping hours since May 12th at D Street. No additional and unnecessary pumping of seawater at D Street on dry weather days.

- PS wetwell cleaning. [pictured #5 & LS A & landfill dump pit area]



- Additional operations building rotted drainpipe replacement [shown – ceiling of garage]



- Made needed plant piping changes to support upcoming HW bypass – relocate sump pump discharge from sub-basement, HW area piping, probes, screenings box drain, relocation of composite sampler, other items to provide access for GMPS work.
- Removed rags from pump #1 at PS #3 – rags/debris accumulated in pump and discharge check valve.
- PS #4 – ongoing issue with graffiti spray painted on building – reported to HSD and HPD.
- Annual transfer switch [TSW] PM inspection, cleaning, and testing for plant and pump stations. All switches tested for proper transfer & retransfer from utility power to standby generator power. There were no issues.
- Various plant clean-up tasks completed “spring clean-up”



6.2 ASSET MANAGEMENT ACCOUNTS

Please see the attached summary of the Asset Management accounts for contract year (5). Most recent through **07/02/20**. Updates & final notes made to the 05M expenditures list.

Notes for planned 06M expenditures list to be included in the June MOR. See Asset account budgets for year #6 below.

Asset Management Accounts - Year 6				
Account		Actual to date		
		Budgeted Amount	Spent to Date	Delta
06M-101A	Preventive Maint	\$210,555.68	\$5,239.87	\$205,315.81
06M-102B	Capital and Major Repairs	\$140,000.00	\$0.00	\$140,000.00
06M-103A	Major Sub Contractors	\$178,370.75	\$6,796.40	\$171,574.35
blank				
	Asset Management	\$528,926.43	\$12,036.27	\$516,890.16
06S	D Street	\$7,500.00	\$137.85	\$7,362.15
06C	Odor Control Chemicals	\$100,000.00	\$60,000.00	\$40,000.00

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 May.
- Monthly PM's - Emergency eyewash and shower inspections, fire extinguisher and emergency lighting inspections completed. List of emergency lighting deficiencies prepared for the electrician.
- Coronavirus Covid-19 updates discussed – staff separation planning, facility visitors, personal hygiene & company initiatives. Non-contact temp checks for staff & visitors. Signage posted [pictured below]. Maintain adequate safety supplies – face shields, face masks, hand sanitizer, gloves, etc. Participation in weekly calls with MADEP and USEPA.
- Ongoing - Daily safety briefing meetings, review site safety policies with sub-contractors, safety tailgate topics. Pure Safety topic– May – *Mini Session videos on Covid-19*.
- Monthly staff safety meeting conducted on 5/31/20 RH prepared a PowerPoint safety meeting for remote viewing by staff. Reminders for daily safety briefing topics and discussion points & documentation. Review "Lessons Learned" from April 2020, Near misses and incidents from other company projects. Various safety reminders. See summary below.
- New product SDS's reviewed for various wipes and disinfectants obtained because of Covid-19.
- Assist HSD with ordering of PPE supplies for staff & others due to the Covid19 emergency.
- With warmer weather – tick safety reminders.
- Review Back Safety Job aid. Remind/Review staff on updated pandemic and BBP plan updates
- Purchase rolling/portable platform ladder for use by screening box. Set up of safety chains on screenings box platform.



Safety signage – covid-19

Safety platform ladder for screenings box

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 April discussed.
- Regular operational updates and process control discussions, pump station operations, especially with all sewer projects going on in the town, dig-safes, etc.
- Declan Baggett’s return to work as a part-time employee for the summer months planned for mid-June.

Staffing related items:

- Staffing schedule – return to near full/regular hours with some minor separation on days where the full staff was on site [Tues, Wed, Thurs]. Following protocols and social distancing.
- Mass Maritime [MM] internship program on hold due to the Covid-19 emergency. Will consider a candidate in Fall 2020.
- No changes on the Sunday schedule plan. Coverage by Aram V., Roger B., Bill B., and Joe B. If Bill or Aram are not scheduled for a Sunday, they will be working on a Monday-Friday schedule.
- Supplementing staff needs with O&M tech support where needed. Very limited due to Covid-19 emergency. Jody S providing coverage when staff levels are lower due to sickness, vacation, or training.

9 COLLECTION SYSTEM

9.1 WET WELL CLEANING

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

(X-Cleaned) - (Orange – Inspected) - (Green – See notes) - (blank – no work done)

Frequency of cleaning	Pump Station							
	A	1	3	4	5	6	9	D
May, 2020	X				X			
June, 2020								
July, 2020								
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 May.

- In-Pipe units – battery change out, dosing unit cleaning and inspection and circuit board troubleshooting and replacement as needed.
- All Pump station generator loaded, and non-loaded generator runs were done for the month.
- Five grinder pumps replaced – see utility cloud summary. 34 Rockaway grinder pump discharge line had blockage that was cleared by RosanoDavis “pencil” jetter [for small diameter pipes] pictured below. Also, new control panel installed at this location. On-going pump repairs and new replacements purchased through FRMahony & Associates.



- Work with HSD on best approach for 37 Elm Ave grinder pump station replacement, due to fractured pump chamber.

Manholes:

- Staff continues to respond to rattling numerous 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, other town projects.

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

10 PROJECT MANAGEMENT & ADMINISTRATION



10.1 ON-GOING PROJECTS AND SUPPORT ITEMS

- The #2 secondary clarifier and #1 gravity thickener tanks were taken out of service and the tanks cleaned out. Contact with the service contractors for the new equipment installation was made in May for possible installation of new Amwell drives in June. IPC Lydon and New England Pump and Valve are the contractors.
- As noted in the project maintenance section, the near “final” year 5 – 05M Asset Management Account summary is attached. The accounts will be reviewed for accounting and all back-up paperwork provided for review.
- The new portable generator, that the HSD purchased through the “Sourcewell” purchasing contract was delivered in May. Start-up training also took place in May approximately two weeks after the delivery. Evaluating the electrical connection at Lift Station A.
- Weather Station to be installed in June, with tie into SCADA planned.
- Continued coordination for changes and logistics of the SSES yard piping assessment. Multiple project meetings for test pits were done with engineering, Town, and the Contractor. Significant increase in 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 two weekly calls and other daily coordination and data review with the Aquasight team. Additional coordination in May to launch the secondary / process efficiency milestone.
- Additional support and project planning between O&M, Engineering, & the town for the Headworks effluent pipe lining project in coordination with maintaining essential services and functionality of the plant to support the project. In May, there was a lot of coordination with Green Mountain Pipeline

Services [GMPS] onsite for logistics and setup of the bypass and the screenings box. O&M also started changes and planning to keep the headworks side-stream flows online but re-routed away or around the work area.

- Where needed, coordinated the short-term shutdown of PS 1 & PS 3 to accommodate needs for the Atlantic Ave/Gunrock sewer project.
- Continued support and involvement with facility planning/resiliency project, PS #5, and effluent pump room projects.

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class	View
5/1/2020 12:15	53-010	109 ATLANTIC AVE	Hull Parcels	Boornazian, Bill	Generic WO	View
5/22/2020 14:37	Bateria UNIT #6	UNIT #6	Hull In Pipe Bacteria Unit	Sutton, Eric	Generic WO	View
5/28/2020 12:01	MH-20385	MH-20385	Sanitary Manhole	Holman, Ryan	Generic WO	View
5/22/2020 11:57	MH-20811	MH-20811	Sanitary Manhole	Sutton, Eric	Generic WO	View
5/23/2020 9:18	16 Dellawanda Rd	16 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Hull - Grinder Pump Maintenance	View
5/11/2020 14:19	165 N Truro St	165 N Truro St Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	View
5/2/2020 15:14	21 Shore Gardens Rd	21 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Basler, Joe	Hull - Grinder Pump Maintenance	View
5/8/2020 14:55	34 Rockaway Ave	34 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	View
5/11/2020 14:14	34 Rockaway Ave	34 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	View
5/6/2020 9:32	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/19/2020 14:43	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Holman, Ryan	Hull - In Pipe Bacteria Units	View
5/6/2020 9:36	Bacteria UNIT #22	UNIT #22	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:22	Bateria UNIT # 8	UNIT # 8	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:15	Bateria UNIT #1	UNIT #1	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:23	Bateria UNIT #10	UNIT #10	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:28	Bateria UNIT #11	UNIT #11	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:34	Bateria UNIT #12	UNIT #12	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:33	Bateria UNIT #13	UNIT #13	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:32	Bateria UNIT #14	UNIT #14	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:31	Bateria UNIT #15	UNIT #15	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:29	Bateria UNIT #16	UNIT #16	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:30	Bateria UNIT #16	UNIT #16	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:24	Bateria UNIT #17	UNIT #17	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:28	Bateria UNIT #18	UNIT #18	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:27	Bateria UNIT #19	UNIT #19	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:16	Bateria UNIT #2	UNIT #2	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:29	Bateria UNIT #20	UNIT #20	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:34	Bateria UNIT #23	UNIT #23	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:35	Bateria UNIT #23	UNIT #23	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:18	Bateria UNIT #24	UNIT #24	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:26	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/19/2020 14:42	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Holman, Ryan	Hull - In Pipe Bacteria Units	View
5/6/2020 9:18	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/19/2020 14:41	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Holman, Ryan	Hull - In Pipe Bacteria Units	View
5/6/2020 9:20	Bateria UNIT #5	UNIT #5	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:20	Bateria UNIT #6	UNIT #6	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/6/2020 9:21	Bateria UNIT #7	UNIT #7	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View

5/6/2020 9:37	Bateria UNIT #9	UNIT #9	Hull In Pipe Bacteria Unit	Basler, Joe	Hull - In Pipe Bacteria Units	View
5/28/2020 11:58	15-015	44 J STREET	Hull Parcels	Holman, Ryan	Hull - Markout	View
5/7/2020 8:55	15-104	259 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/11/2020 15:14	18-032	2 C STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/27/2020 14:35	19-153	26 ADAMS STREET	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/12/2020 14:37	23-018	571 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/4/2020 11:54	24-097	38 DRAPER AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	View
5/27/2020 14:48	24-097	38 DRAPER AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/29/2020 7:14	26-054	25 RUSSELL ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/12/2020 19:34	30-071	2 SIXTH ST	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/22/2020 12:00	32-067	58 CLIFTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/12/2020 14:48	43-057	87 ROCKAWAY AVE	Hull Parcels	Sutton, Eric	Hull - Markout	View
5/26/2020 10:49	06-059	30 MAIN ST	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	View
5/16/2020 13:06	33-150	29 ROOSEVELT AVE	Hull Parcels	Holman, Ryan	Hull - Sewer Backup	View
5/28/2020 12:05	MH-20345-1	MH-20345-1	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
5/28/2020 12:09	MH-20424-1	MH-20424-1	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
5/28/2020 12:22	MH-20551	MH-20551	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
5/28/2020 13:18	MH-20576	MH-20576	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
5/28/2020 12:33	MH-20605	MH-20605	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
5/28/2020 13:14	MH-20701	MH-20701	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	View
5/4/2020 11:56	10456	Sewer 16" AC Pipe on DRAPER AVE.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	View
5/12/2020 19:28	34 Rockaway Ave	34 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	View



Maintenance History Report

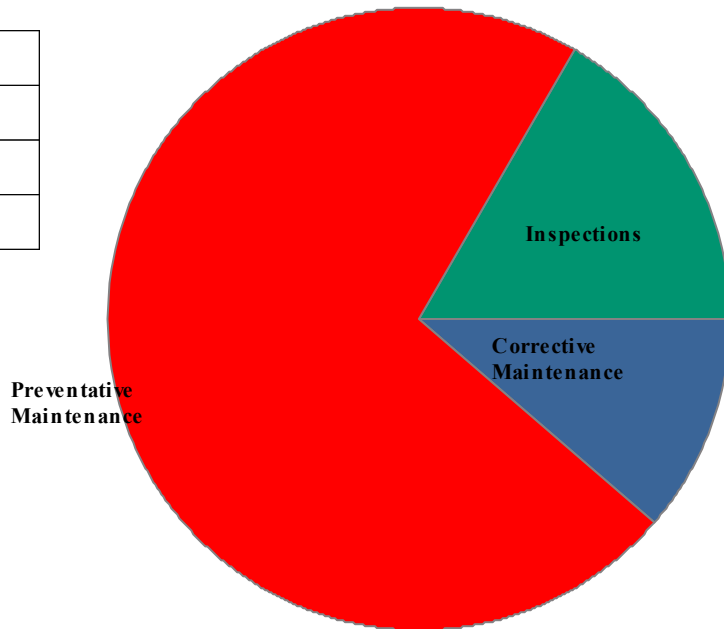
Hull Wastewater

Start Date: 5/1/2020

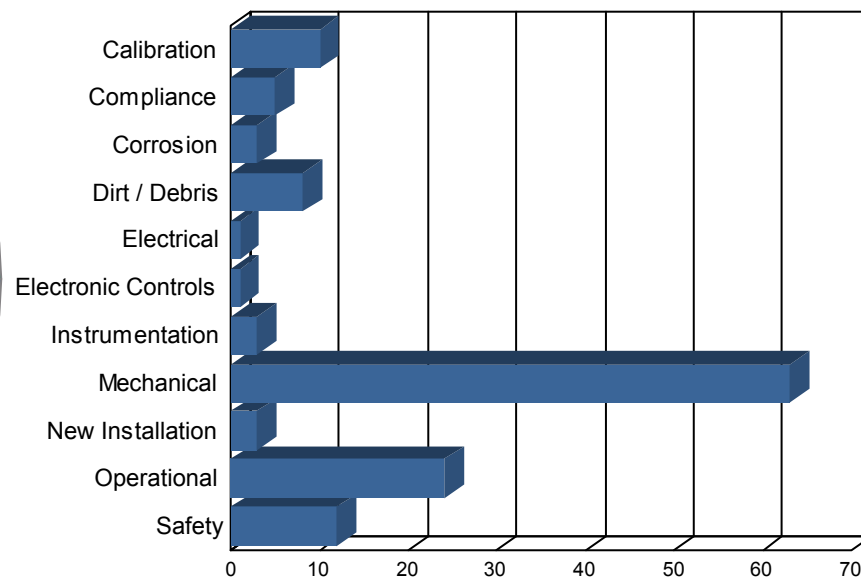
End Date: 5/31/2020

Work Order History By Type

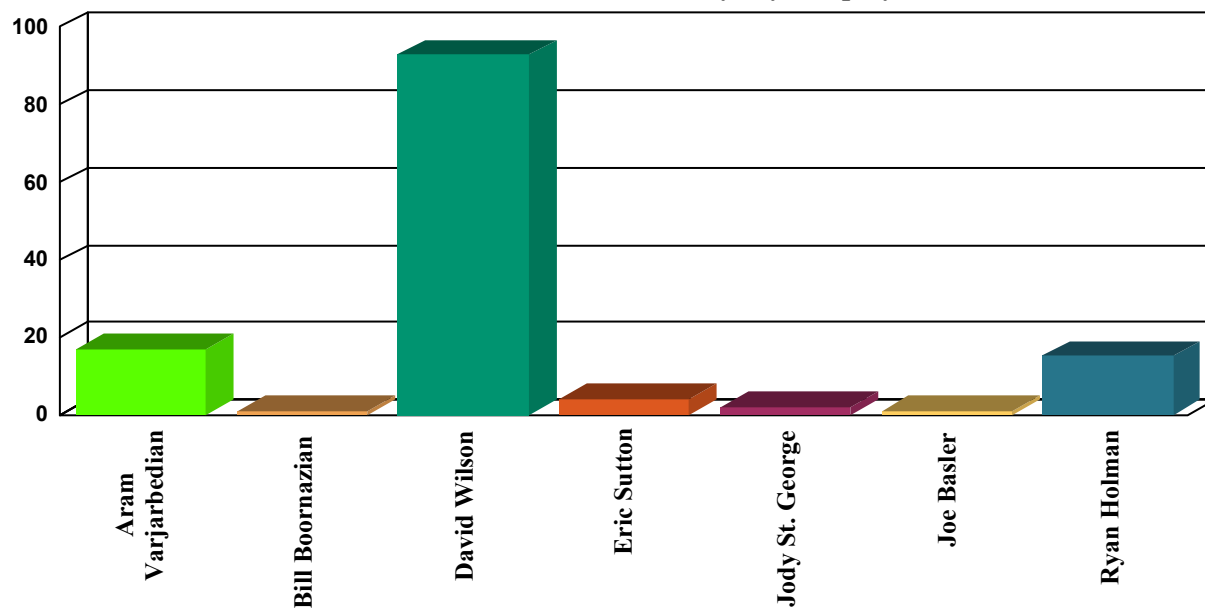
Corrective Maintenance	15
Inspections	22
Preventative Maintenance	96
Total Work Orders	133



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	17	14
Bill Boornazian	1	2
David Wilson	93	53
Eric Sutton	4	1
Jody St. George	2	5
Joe Basler	1	1
Ryan Holman	15	10
Totals	133	84

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/4/20	12048	PS 5 Wet Well	Wet well cleaning	Isolated pumps to raise wet well level. Used high pressure water to clean transducer still pipe. Removed and inspected transducer. Cleaned and inspected aerator. Sprayed down the walls of the wet well. Used combination truck to vacuum out fat balls from wet well.	David Wilson	4/29/20	Completed
5/4/20	12051	RST Polymer feed pump	Insp/clean pump, lines	Remove/repl ball and springs in pump, AV and DW. Install new tubing.	Aram Varjarbedian	5/4/20	Completed
5/4/20	12052	RST Polymer feed pump	Repair pump mount	Made new plates from aluminum. New stainless hardware. Installed mounting plates.	David Wilson	5/4/20	Completed
5/11/20	12053	PS D Discharge Pipe	Remove duck bill and install checkmate	Completed	Jody St. George	5/11/20	Completed
5/11/20	12057	Operations Building	Second floor drainage leaking into garage.	Removed damaged sections of second floor drain. Capped end and removed pipe servicing sealed off drains.	David Wilson	5/12/20	Completed
5/12/20	12055	PS 3 Pump 2	Low output.	LOTO of equipment. Removed cleanouts. Push rag ball into impeller face. Removed rag ball from lower cleanout. Reassembled and returned to service.	David Wilson	5/12/20	Completed
5/12/20	12056	PS 3 Piping and Valves	Pump 1 check valve allowing forced main to drain back into wet well.	LOTO of equipment for pump 1. Relived pressure. Remove check valve cover. Pumped out valve body. Found rag ball wrapped around flapper and 10" piece of pvc behind flapper. Reassembled and returned to service.	David Wilson	5/12/20	Completed
5/12/20	12054	Influent Pump Room	Interconnect sump pump plumbing	Completed	Jody St. George	5/12/20	Completed
5/12/20	12058	Garage	Replace wheels on gantry in garage.	RH / DW removed wheels, lubed axle pins and roller bearings. Installed new wheels.	David Wilson	5/12/20	Completed
5/13/20	12059	Influent Composit Sampler	Clogged suction line	Cleaned and inspected composite sampler line. Tested system and returned to service.	Joe Basler	5/13/20	Completed
5/15/20	12060	Truck 3 - 2015 Chevy 3500 HD	Battery replacement	Old original 2015 battery replacement with new. Old battery dead repeatedly.	Bill Boornazian	5/15/20	Completed
5/21/20	12067	RST unit	Mixing tank leaking from discharge.	LOTO of equipment. Removed chain guard. Stipped paint from pipe for inspection. Some shallow pin holes. Sealed up with pipe wrap. Reassembled and returned to service.	David Wilson	5/21/20	Completed
5/27/20	12070	PS D SCADA Panel	Needs new UPS battery	AV/BB install new back up battery to replace older unit (unknown age)	Aram Varjarbedian	5/27/20	Completed
5/28/20	12072	Gravity Thickener 1	Tank cleaning	AV, BB, JS, DW take tank off line, drain and clean with Hoadley vac truck.	Aram Varjarbedian	5/31/20	Completed
5/31/20	12073	PS 4 Building	Graffiti on door	Took picture of graffiti. Cleaned with graffiti wipes.	David Wilson	5/31/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/1/20	11431	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Tested and inspected all emergency eye wash and shower stations.	Ryan Holman	4/26/20	Completed
5/3/20	11534	Universal waste area	Universal Waste Storage Area Inspection	Insp area, ok	Aram Varjarbedian	4/14/20	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/3/20	11726	AST- Above Ground Storage tank for diesel fuel	Monthly Inspections of Tanks	Insp and file forms	Aram Varjarbedian	5/1/20	Completed
5/6/20	11601	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations.	Ryan Holman	5/3/20	Completed
5/6/20	11705	Aeration Electrical Control Manhole	Inspect Aeration Electrical Control Manhole	Pumped out rain water. No cover seal.	David Wilson	5/5/20	Completed
5/7/20	11691	Fire Extinguishers	WWTF Fire Extinguisher Inspections - Monthly	Inspected all fire extinguishers located at the plant and pump stations	Ryan Holman	5/4/20	Completed
5/12/20	11647	PS 3	PS #3 Inspection - Monthly	Inspected wet well, fire extinguisher, hubs and couplings. Tested high level alarm and sump pump.	David Wilson	5/7/20	Completed
5/13/20	11646	PS 1	PS #1 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm.	David Wilson	5/7/20	Completed
5/13/20	11650	PS 4	PS #4 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm.	David Wilson	5/7/20	Completed
5/13/20	11651	PS 5	PS #5 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm.	David Wilson	5/7/20	Completed
5/13/20	11654	PS 6	PS #6 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm. Wet well needs to be cleaned.	David Wilson	5/7/20	Completed
5/13/20	11658	PS A	PS #A Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm.	David Wilson	5/7/20	Completed
5/14/20	11602	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations.	Ryan Holman	5/10/20	Completed
5/14/20	11655	PS 9	PS #9 Inspection - Monthly	Inspected wet well and fire extinguisher. Tested sump pump and high level alarm.	David Wilson	5/7/20	Completed
5/21/20	11603	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations throughout the plant.	Ryan Holman	5/17/20	Completed
5/21/20	11606	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly	Tested and inspected all emergency exit signs and lights throughout the plant.	Ryan Holman	5/13/20	Completed
5/24/20	11704	Truck 2 - 2009 Chevy 2500 HD	Monthly vehicle inspection on do-Forms		David Wilson	5/4/20	Completed
5/25/20	11716	Truck 4 - 2015 Nissan Frontier	Monthly vehicle inspection on do-Forms	Mileage. 101457. All ok.	Aram Varjarbedian	5/4/20	Completed
5/25/20	11707	Waste Oil Storage	Waste Oil Area Inspection	Areas checked	Aram Varjarbedian	5/12/20	Completed
5/25/20	11708	Universal waste area	Universal Waste Storage Area Inspection	Area checked. Need new 8ft bulb box set up	Aram Varjarbedian	5/12/20	Completed
5/27/20	11715	Truck 3 - 2015 Chevy 3500 HD	Monthly vehicle inspection on do-Forms	Oil change interval met in 500 miles. Recommend oil and filter change.	David Wilson	5/4/20	Completed
5/27/20	11604	Eyewash Stations	WWTF Eyewash Inspection - Weekly	Inspected and tested all emergency eye wash and shower stations.	Ryan Holman	5/24/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/2/20	11544	High level floats	Weekly High Float Alarm test	Tested all plant alarms.	Ryan Holman	4/26/20	Completed
5/3/20	11731	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set gearbox fluid levels. GT1-3gal, PC1-.25qt, SC1-2qt, SC2-1qt.	David Wilson	5/3/20	Completed
5/3/20	11537	Chlorine probe AT1	Weekly calibration	Slope 400, adj 0.15	Aram Varjarbedian	4/27/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/3/20	11714	Chlorine probe ATI	ATI, change membrane	Calibrated in ok, slope 400	Aram Varjarbedian	5/1/20	Completed
5/3/20	11713	Chlorine probe ATI	Change electrolyte	No changes, caliber ok, slope400	Aram Varjarbedian	5/1/20	Completed
5/3/20	11449	Influent Sluice Isolation Gate	Weekly operate through full range	Exercised from scada ok.	Aram Varjarbedian	4/29/20	Completed
5/3/20	10984	RST unit	RST ANNUAL SHUT DOWN	Completed all, RST cleaned, poly system cleaned, chk all lubr, corr mt e completed	David Wilson	1/6/20	Completed
5/4/20	11619	Mechanical Screen & Washpress System	Monthly Maintenance	Clean and inspected mechanical screen and wash press	David Wilson	5/4/20	Completed
5/4/20	11698	PS Trailer Mounted Generator	Generator - Monthly Load Test		Eric Sutton	5/3/20	Completed
5/4/20	11717	Mechanical Screen	Power wash entire unit to clear all accumulated material	Completed last month	David Wilson	5/4/20	Completed
5/5/20	11610	Generator #1- Emergency Kohler 750	Generator - Monthly Load Test	Checked all fluid levels. Recorded all run data. No issues found. Swept generator room.	David Wilson	5/3/20	Completed
5/5/20	11727	Generators "All Pump Station"	Generator - Monthly Load Test		Eric Sutton	5/3/20	Completed
5/5/20	11618	Mechanical Screen & Washpress System	Screen & Wash press - Semi annual maintenance	Recently completed annual service. Cleaned and inspected all components. Greased Royce bearings and wash press bearings.	David Wilson	5/4/20	Completed
5/6/20	11526	Meter #3 - 4 Gas	4 Gas Meter #3 Calibration - Monthly	Zeroed and calibrated gas meter. No issues found.	David Wilson	4/30/20	Completed
5/6/20	11527	Meter #4 - 4 Gas	4 Gas Meter #4 Calibration - Monthly	Zeroed and tested calibration. No issues found.	David Wilson	4/30/20	Completed
5/6/20	11528	Meter #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Zeroed and tested calibration. Failed sensor board and battery.	David Wilson	4/30/20	Completed
5/6/20	11529	Meter #6 - 4 Gas	4 Gas Meter #6 Calibration - Monthly	Zeroed and tested calibration. No issues found.	David Wilson	4/30/20	Completed
5/6/20	11692	Meters - 4 Gas Confined Space #1	4 gas meter calibration - monthly	Zeroed and tested calibration. No issues found.	David Wilson	5/1/20	Completed
5/6/20	11535	Confined Space 4 Gas Meter	monthly calibration	Zeroed and tested calibration for MaxXTII gas meters 1&2.	David Wilson	4/30/20	Completed
5/6/20	11723	Meters - 4 Gas Confined Space #2	4 gas meter calibration - monthly	MX4 gas meter dropped into clarifier.	David Wilson	5/1/20	Completed
5/6/20	11627	Secondary Clarifier 1	Clean Launder Screens - Quarterly	No launder screen in place.	David Wilson	5/4/20	Completed
5/6/20	11628	Secondary Clarifier 2	Clean Launder Screens - Quarterly	Inspected launder screen. No debris.	David Wilson	5/4/20	Completed
5/6/20	11693	GODWIN Portable Pump	Test Run Godwin Pump-Monthly	Inspected all fluid levels. Brought up to operating temp. No unusual noises or vibration.	David Wilson	5/6/20	Completed
5/6/20	11600	Portable Generator - Honda	Portable Generator Inspection - Monthly	Inspected all fluid levels. Brought up to operating temp. No issues found.	David Wilson	5/6/20	Completed
5/10/20	11732	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set all fluid levels. Inspected and lubed drive chains. GT1- 3gal, PC2- good, SC1- 3qt, SC2- 1.5qt.	David Wilson	5/10/20	Completed
5/10/20	11718	High level floats	Weekly High Float Alarm test		Ryan Holman	5/3/20	Completed
5/10/20	11689	Plant Water Pump 1	Monthly Check Pump Couplings	Direct drive no hubs or coupling.	David Wilson	5/6/20	Completed
5/10/20	11690	Plant Water Pump 2	Monthly Check Pump Couplings	Direct drive no hubs or coupling.	David Wilson	5/6/20	Completed
5/10/20	11724	Recirculation pump #1	Monthly Check Pump Couplings	Direct drive no hubs or coupling.	David Wilson	5/6/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/10/20	11725	Recirculation Pump #2	Monthly Check Pump Couplings	Direct drive no hubs or coupling.	David Wilson	5/6/20	Completed
5/12/20	11634	RAS Pump 1	Monthly Check Pump Couplings	Inspected hubs and coupling. No issues found.	David Wilson	5/6/20	Completed
5/12/20	11635	RAS Pump 2	Monthly Check Pump Couplings	Inspected hubs and coupling. No issues found.	David Wilson	5/6/20	Completed
5/12/20	11638	RAS Pump 3	Monthly Check Pump Couplings	Inspected hubs and coupling. No issues found.	David Wilson	5/6/20	Completed
5/12/20	11695	PS Trailer Mounted Generator	Generator Weekly - Test Run no load	Transfer switch testing completed. Generator ran under load.	David Wilson	5/11/20	Completed
5/12/20	11728	Generators "All Pump Station"	Generator Weekly - Test Run no load	Transfer switch testing completed. Generator ran under load.	David Wilson	5/11/20	Completed
5/12/20	11611	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Transfer switch testing completed. Generator ran under load.	David Wilson	5/11/20	Completed
5/12/20	11607	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Transfer switch testing completed. Generator ran under load.	David Wilson	5/11/20	Completed
5/12/20	11434	Generator #2 - Backup Detroit 500	Generator - Monthly Load Test	Transfer switch testing completed. Generator ran under load.	David Wilson	4/5/20	Completed
5/12/20	11648	PS 3	PUMP STATIONS - QUATERLY PM'S	Lubed and exercised all valves. Inspected pump seals, hubs and couplings. Tested high level alarm and sump pump. Lubed and inspected pump and motor bearings. No unusual noises or vibration.	David Wilson	5/5/20	Completed
5/12/20	11643	Sludge Transfer Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found.	David Wilson	5/6/20	Completed
5/12/20	11644	Sludge Transfer Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. No issues found.	David Wilson	5/6/20	Completed
5/12/20	11633	RAS Pump 1	RAS Pump #1 PM - Quarterly	LOTO of equipment. Exercised all valves. Inspected hubs, coupling and seals. Lubed all bearings.	David Wilson	5/6/20	Completed
5/12/20	11636	RAS Pump 2	RAS Pump #2 PM - Quarterly	LOTO of equipment. Exercised all valves. Inspected hubs, coupling and seals. Lubed all bearings.	David Wilson	5/6/20	Completed
5/12/20	11637	RAS Pump 3	RAS Pump #3 PM - Quarterly	LOTO of equipment. Exercised all valves. Inspected hubs, coupling and seals. Lubed all bearings.	David Wilson	5/6/20	Completed
5/12/20	11614	Influent Sluice Isolation Gate	Weekly operate through full range		Ryan Holman	5/6/20	Completed
5/12/20	11719	High level floats	Weekly High Float Alarm test		Ryan Holman	5/10/20	Completed
5/13/20	11645	PS 1	PUMP STATIONS - QUATERLY PM'S	Inspected seals, hubs and coupling. Greased all bearings and exercised all valves. No unusual noises or vibration.	David Wilson	5/5/20	Completed
5/13/20	11649	PS 4	PUMP STATIONS - QUATERLY PM'S	Inspected seals, hubs and coupling. Lubed all bearings and exercised all valves. No unusual noises or vibration.	David Wilson	5/5/20	Completed
5/13/20	11652	PS 5	PUMP STATIONS - QUATERLY PM'S	Inspected seals, hubs and coupling. Lubed all bearings and exercised all valves. No unusual noises or vibration.	David Wilson	5/5/20	Completed
5/13/20	11653	PS 6	PUMP STATIONS - QUATERLY PM'S	Inspected seals, hubs and coupling. Lubed all bearings and exercised all valves. No unusual noises or vibration.	David Wilson	5/5/20	Completed
5/13/20	12061	PS 1 Generator	Replace battery.	Replaced generator battery.	David Wilson	5/17/20	Completed
5/13/20	12062	PS 3 Generator	Replace battery	Replaced battery	David Wilson	5/17/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/13/20	12063	PS 4 Generator	Replace battery	Replaced battery	David Wilson	5/17/20	Completed
5/13/20	12064	PS 6 Generator	Replace battery	Replaced battery	David Wilson	5/17/20	Completed
5/13/20	12065	PS 9 Generator	Replace battery	Replaced battery	David Wilson	5/17/20	Completed
5/13/20	12066	Generator #2 - Backup Detroit 500	Replace battery	Replaced battery	David Wilson	5/17/20	Completed
5/14/20	11656	PS 9	PUMP STATIONS - QUATERLY PM'S	Inspected seals, hubs and coupling. Lubed all bearings and exercised all valves. No unusual noises or vibration.	David Wilson	5/5/20	Completed
5/17/20	11657	PS A	PUMP STATIONS - QUATERLY PM'S	Exercised all valves. Dry pit submersible pumps should be serviced. #1 is quiet but has low output. #2 is loud and has decent output. Discharge pressures are w/in 3 psi of each other. No new noises or vibration.	David Wilson	5/5/20	Completed
5/17/20	11733	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set fluid level in all online clarifier gearboxes.	David Wilson	5/17/20	Completed
5/18/20	11641	Primary Sludge Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Good	David Wilson	5/6/20	Completed
5/18/20	11642	Primary Sludge Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Good	David Wilson	5/6/20	Completed
5/18/20	11639	RST Feed Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Good	David Wilson	5/6/20	Completed
5/18/20	11640	RST Feed Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Good	David Wilson	5/6/20	Completed
5/18/20	11620	Influent Pump 1	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Good	David Wilson	5/6/20	Completed
5/18/20	11621	Influent Pump 2	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Coupling recently replaced. Motor side hub is size 9s by Woods 1 5/8" shaft size. Recommend replacement.	David Wilson	5/6/20	Completed
5/18/20	11622	Influent Pump 3	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Like new	David Wilson	5/6/20	Completed
5/18/20	11623	Influent Pump 4	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Slight wear. Dust cleaned up. Overall good.	David Wilson	5/6/20	Completed
5/18/20	11624	Influent Pump 5	Monthly Check Pump Couplings	LOTO of equipment. Inspected hubs and coupling. Slight wear. Dust cleaned up. Overall good.	David Wilson	5/6/20	Completed
5/19/20	11696	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		Eric Sutton	5/18/20	Completed
5/19/20	11729	Generators "All Pump Station"	Generator Weekly - Test Run no load		Eric Sutton	5/18/20	Completed
5/21/20	11629	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly	Cleaned and calibrated LDO sensor. Slope offset +.38mg/l	David Wilson	5/5/20	Completed
5/21/20	11630	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly	Cleaned and calibrated LDO sensor. Slope offset +.62mg/l	David Wilson	5/5/20	Completed
5/21/20	11612	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Inspected all fluid levels. Brought up to operating temp. Recorded run data. No unusual noises or vibration.	David Wilson	5/18/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/21/20	11608	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Inspected all fluid levels. Brought up to operating temp. Recorded all run data. No unusual noises or vibration. Cleaned strainer basket.	David Wilson	5/18/20	Completed
5/22/20	11615	Influent Sluice Isolation Gate	Weekly operate through full range	Ran the influent gate in hand.	Ryan Holman	5/13/20	Completed
5/22/20	11720	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms. All functioning properly.	Ryan Holman	5/17/20	Completed
5/22/20	11721	High level floats	Weekly High Float Alarm test	Tested all high level floats and alarms. All functioning properly.	Ryan Holman	5/24/20	Completed
5/24/20	11734	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Inspected and set all gearbox fluid levels. GT1- 3.5gal and SC1- 1qt	David Wilson	5/24/20	Completed
5/25/20	11711	Chlorine probe ATI	Weekly calibration	Meter good. No adj needed.	Aram Varjarbedian	5/11/20	Completed
5/25/20	11712	Chlorine probe ATI	Weekly calibration	Meter good, within 0.1 of lab results. No adj	Aram Varjarbedian	5/25/20	Completed
5/25/20	11461	Effluent Pumps	Effluent Pump - Monthly	Review trends. All effluent pumps except P3 ran in May. p3 still has lower flow output issues. Still waiting for hoist bracket capacity test in order to pull pump.	Aram Varjarbedian	4/15/20	Completed
5/25/20	11616	Influent Sluice Isolation Gate	Weekly operate through full range	Exercised from scada ok.	Aram Varjarbedian	5/20/20	Completed
5/26/20	11697	PS Trailer Mounted Generator	Generator Weekly - Test Run no load		David Wilson	5/25/20	Completed
5/26/20	11730	Generators "All Pump Station"	Generator Weekly - Test Run no load		David Wilson	5/25/20	Completed
5/26/20	11609	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Checked all fluid levels and brought up to operating temp. Recorded all run data. Cleaned strainer basket.	David Wilson	5/25/20	Completed
5/26/20	11613	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. No unusual noises or vibration.	David Wilson	5/25/20	Completed
5/26/20	11625	Aeration Blower 1	Aeration Blower #1 Air Filter Inspection - monthly	Inspected air filter. Installed clean air filter.	David Wilson	5/26/20	Completed
5/26/20	11632	Wet Scrubber Fan	Scrubber Exhaust Fan PM - Monthly	LOTO of all equipment. Lubed and inspected bearings and seals. Adjusted belts and lubed motor bearings.	David Wilson	5/13/20	Completed
5/27/20	11305	Effluent Pumps	Effluent Pump - Monthly	All pumps except pump3 ran at various times. Pump 3 still has lower output than design. Review trend history and log.	Aram Varjarbedian	3/15/20	Completed
5/27/20	12068	30 - WW Treatment Plant - General	Install isolation valve and cap onto bypass screen container.	Installed isolation valve onto scdeening container. Attached threaded coupling and cap.	David Wilson	5/27/20	Completed
5/27/20	12069	PS D - DPW Stormwater Pump Station	Install check mate into K street outfall.	CSE into storm drain vault. Cleaned outfall and floor of vault. Installed check mate.	David Wilson	5/27/20	Completed
5/28/20	11617	Influent Sluice Isolation Gate	Weekly operate through full range	Ran influent sluice gate from SCADA	Ryan Holman	5/27/20	Completed
5/28/20	12071	30 - WW Treatment Plant - General	Mount signs at plant entry points	Mounted 6 signs at plant entries.	David Wilson	5/28/20	Completed
5/28/20	11626	Aeration Blower 2	Aeration Blower #2 Air Filter Inspection - Monthly	Inspected air filter element. Replaced with a clean one.	David Wilson	5/28/20	Completed
5/28/20	11709	Confined Space 4 Gas Meter	monthly calibration	Zeroed and tested calibration. No issues found.	David Wilson	5/28/20	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/31/20	11735	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Topped off SC1 gearbox. 1.5qt added. Chain inspected and lubed.	David Wilson	5/31/20	Completed

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	\$136,913.59	\$69,409.82	\$0.00	\$136,913.59	\$69,409.82
05M-102B	Capital and Major Repairs	\$140,000.00	\$190,279.85	(\$50,279.85)	\$0.00	\$190,279.85	(\$50,279.85)
05M-103A	Major Sub Contractors	\$174,785.44	\$193,395.64	(\$18,610.20)	\$0.00	\$193,395.64	(\$18,610.20)
blank					\$0.00		
	Asset Management	\$521,108.86	\$520,589.08	\$519.78	\$0.00	\$520,589.08	\$519.78

\$519.78

Budget expended	Time Status	
	NOW=	7/2/2020
	Start	5/1/2019
66.4%	117.4%	51.0%
135.9%	117.4%	-18.5%
110.6%	117.4%	6.7%
99.9%	117.4%	17.5%

05S	D Street	\$7,500.00	\$7,500.00	\$0.00	\$0.00	\$7,500.00	\$0.00
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100.0%	117.4%	17.4%
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05C	Odor Control Chemicals	\$100,000.00	\$99,355.23	\$644.77		\$99,355.23	\$644.77	99.4%		-99.4%
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For MAY 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

\$0.00

7/2/2020 10:44

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Mechanical Work Labor	On Going		101A				Jody St. George, Jim Gagliard, and WC Support Staff; orig budget \$40,000; approx \$3300/mo; delete \$2,000 - 3/9/20; adj by 2000 4/1/20; Adj to zero on 4/7
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	Completed		101A				Various Suppliers for oil and grease, orig budget 4500; adj budget 1/20/20; pcard costs for March 2020; delete remaining placeholder funds - 3/11/20; processed pcard May2020.
1	Generator Repairs [see item - line #92]	Completed		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	Completed		101A				Semi Annual - Hart Security [April] due in 4/27; completed.
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				Annual; cost \$400 - will do in 06M
1	Overhead Hoist Inspection	Completed		101A				Annual - Applied Dynamics - PO usually is issued in April, but last insp was done May 2019; PO was issued 101238; due in 4/27; Completed, inv paid 4/29
1	Flow meter verification and calibration	Completed		101A				Annual - Ray Ferland 1 visit sept 2019; Orig budget \$1,000
1	Facility Building - Roof Inspection	Completed		101A				Annual - Established contract with Tecta America [year 2] PO in system as of 2/6/20 # 100823 - \$2850]
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	Completed		101A				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 - \$1,079.56 pcard March.
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	Completed		101A				Estimated annual expenditures Orig budget \$750
1	Backflow device testing	On Going		101A				\$220 per Qtr, per water supplier [orig budget \$880]; 4/7 - most likely after May 1st
1	Manhole Inspections	On Going		101A				As required, and/or scheduled

FOR MAY 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

\$0.00

7/2/2020 10:44

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	General mechanical and electrical items/supplies	On Going		101A				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]; 4/7 deleting remainig \$\$ here as bills getting paid from pcard & other
2	Vibration Analysis Survey	Pending		101A				Annual - 2 to 3 Days - Aeration System Blowers, Pump Station Pumps, etc./td; 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				Hardware Store - \$200.00 per month - reoccurring expense, orig total budget \$2400; reduce by monthly YTD; delete placeholer \$\$ left [500] pcard costs march
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	Completed		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
2 of 5	Dehudifiers for pump stations PS1 & PS3	Completed		101A	2019_05_1_05M_Checkbook_YTD			ordered 2 for 2 pump stations [5 left to do]; orig budget for 2= \$2200.00 - paid for already 05M Planned Costs

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

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$0.00

7/2/2020 10:44

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
	Purchase Vaughan Pump parts for PC pumps #1 & 2	Completed		101A				Parts for repairs ordered, and received. Actual bill paid \$2,644.
	Lab Equip Calibration	Completed		101A				Annual service - usually Jan/Feb. Completed in April 2020 - \$600. Bill paid 4/21
	Parkson - parts for RDT - drive sprocket, chain, motor sprocket	Completed		101A				PO in system for \$956.00
	Mech seal[s] for RAS pumps ! & 2	Pending		101A				Evaluating costs Estimated annual expenditures Orig budget \$750; could be approx \$1600, will wait until after May 1, 2020
	Batteries for PS Gen	Pending		101A				Pending, have not purchased yet [4/12/20]; estim cost \$1,100
	Purchase Two 8" valves for PS 4	completed		101A				Purchased April 2020, valves rec'd, waiting for bill 4/22; Bill received & paid 4/29
	Purchase Two 6" valves for PS 4	Pending		101A				Pending, have not purchased yet [4/12/20]; Estim cost \$1450
1	Pump Station #5 Discharge Pipe - Replace with C900 Pipe and Install a the force main Isolation valve	Completed		102B		\$38,905.12		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 & Installation by Fellows Elec
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	Completed		102B		\$29,890.00		two stairwell roofs - South Shore Roofing not approved, since approval process not completed, Change to Tecta America.POI system as of 2/6/20 - \$29890; work 85% complete. Completed 4/15
2	Pump Station Ladders	On Going		102B		\$18,760.00		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; Ladders to be installed mid-April 2020. - 4/15 & 4/16 Completed
2	Sludge Holding Tank #1 - tank needs to be cleaned, evaluate condition, & replace the aeration system piping	Completed		102B		\$6,026.20		Assess Needs, determine labor, remove old equipment, replace the aeration line to the tank, waiting for WRE quote. Only completed cleaning on 416. Estim cost: \$7900.00
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.

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

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$0.00

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Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	Purchase and Install (4) additional yard hydrants	On Going		102B		\$7,636.63		hydrants purchased, and materials & contractor installation [2 days]; hoadley parts & exp \$2600; hydrants recs \$4700 removed; update 2/6/20 - Will 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]; Will do under 06M or under HW/Structural project work at PS4.
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				Facility/Process modification. Facilities Plan possible modification or will look at during the HW bypass for structural work late 2020.
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.
	Rotating Sludge Thickener - Thickened Sludge Pump	Completed		102B		\$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.
	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 Volyage Assoc.Estirn 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		\$5,916.84		PS5 Emergency electrical repairs/work, invoice paid \$5,916.84
	Roof mats - for walkway	Completed		102B		\$2,920.00		to be done at time of roof insp.Feb 2020; PO in system as of 2/6/20 - \$2920; completed.
1	Electrical Work	On Going		103A				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. Glenn F invoices due for 4/21 & 4/22;
1	SCADA Work	On Going		103A				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; reduced placeholder on 4/7 to \$3000. Delete placeholder on 4/22;
1	E-One Repairs and Replacement	Completed		103A				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. Remove placeholder \$\$ left - \$2000 - 3/11/20; Add budget back on 4/7/20 - \$2500
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	Completed		103A				Annual Service planned for April 2020 - Highland Power - NETS - Transfer Switch; PO to be issued - #100981
1	Wetwell Inspections and Cleaning - Pump Stations	Completed		103A				As Required - \$2500 per day; orig budget \$12,500; reduce to \$10,000; Adj Jan 2020; adj Feb 2020; adj 3/9/20; Will need 1 day of service by either Jhoadley, BMC, or WRE; cleaning on 4/28
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. To be done under GMPS interceptor changeorder
1	Sewer Line Cleaning - Emergencies	Completed		103A				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. Placeholder \$\$ 4/19/20. Jhoadley bill expected. Bill paid 5/13/20
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]

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

Maintenance Account - Year 5 - 05_01_19 to 04_30_20

\$0.00

7/2/2020 10:44

Priority	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Collection System - Jetting Work	On Going		103A				Currently under BMC purchase order. Work with Peter Lyons to coordinate activitiesDetermine 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	Completed		102B				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
	Aeration Blower PLC Upgrade - Installation	Completed		102B				labor to come from 05M on the Critical Spare List; based on latest quote from Doug Tirrel. \$11,500.00; Addit programming costs for aer controls. Adj down due to expenses coming in. Final costs to post w/e 4/24.
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	Completed		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
2	FRM - Control Panel for E-One & other spare parts	Completed		103A				for inventory if needed - orig budget \$2,000
2	Generators - Load Bank Testing	Pending		103A				Look at under 06M - 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	Completed		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		\$3,117.50		2 pump trucks for 1 day pumping - bills pending; bills processed 3/17/20
	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					\$0.00			