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COMMITMENT & INTEGRITY DRIVE RESULTS

HULL WATER POLLUTION CONTROL FACILITY

October

2019

MONTHLY OPERATING REPORT



NPDES NO. MA0101231

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Cover pictures: [top] Sunset at A Street pier [photo by Ann Goldman].
 [bottom] Roof top photo overlooking aeration tanks

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 October 2019.

- No lost-time incidents for the month of October.
- There were 144 effluent samples taken in the month of October. Please see page (8) for details.
- There were no effluent permit violations.
- Plant average flows were higher in October in comparison to September. Overall rainfall was up significantly. The average daily flow for the month was 1.5MGD. A total of 5.27 inches of rainfall was recorded for the month.
- The plant and collection system odors were low. The Bioxide system was in service for part of the month. This was due to insufficient chemical inventory and delayed delivery from supplier. The system was online for approximately one half of the month and shut down for the season on 10/28. No dose changes were made, and the H₂S trending graphs are attached.
- Asset Management Accounts checkbook for 05M is attached, and the updated planned expenses sheets also attached. A review of the account status between W&C and Hull Sewer Dept. is an on-going process.
- There were 2 grinder pump call outs during the month of October that the staff responded to and corrected with (2) pumps having to be replaced.
- W&C O&M staff continued to assist HSD where requested for selection of some of the equipment off the original "Critical Equipment List" so that the HSD could purchase directly. Amwell gear boxes, effluent pump, portable emergency generator.
- W&C O&M working with Engineering on multiple projects including Facility Planning [tour given on 9/4/19], Pump Station, Conditions Assessments, Gunrock Ave PCO related to FM break and Headworks / structural coordination.
- Planning meetings held with HSD to discuss headworks bypass, capital projects, and on-going projects.
- Assisted with several pump station shutdown and force main drain backs as part of on-going sewer project work.
- 24-hour manned coverage at the facility on 10/16 – storm related rain and excessive wind. No significant issues. Additional staff coverage on 10/27 due to weather related issues.

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



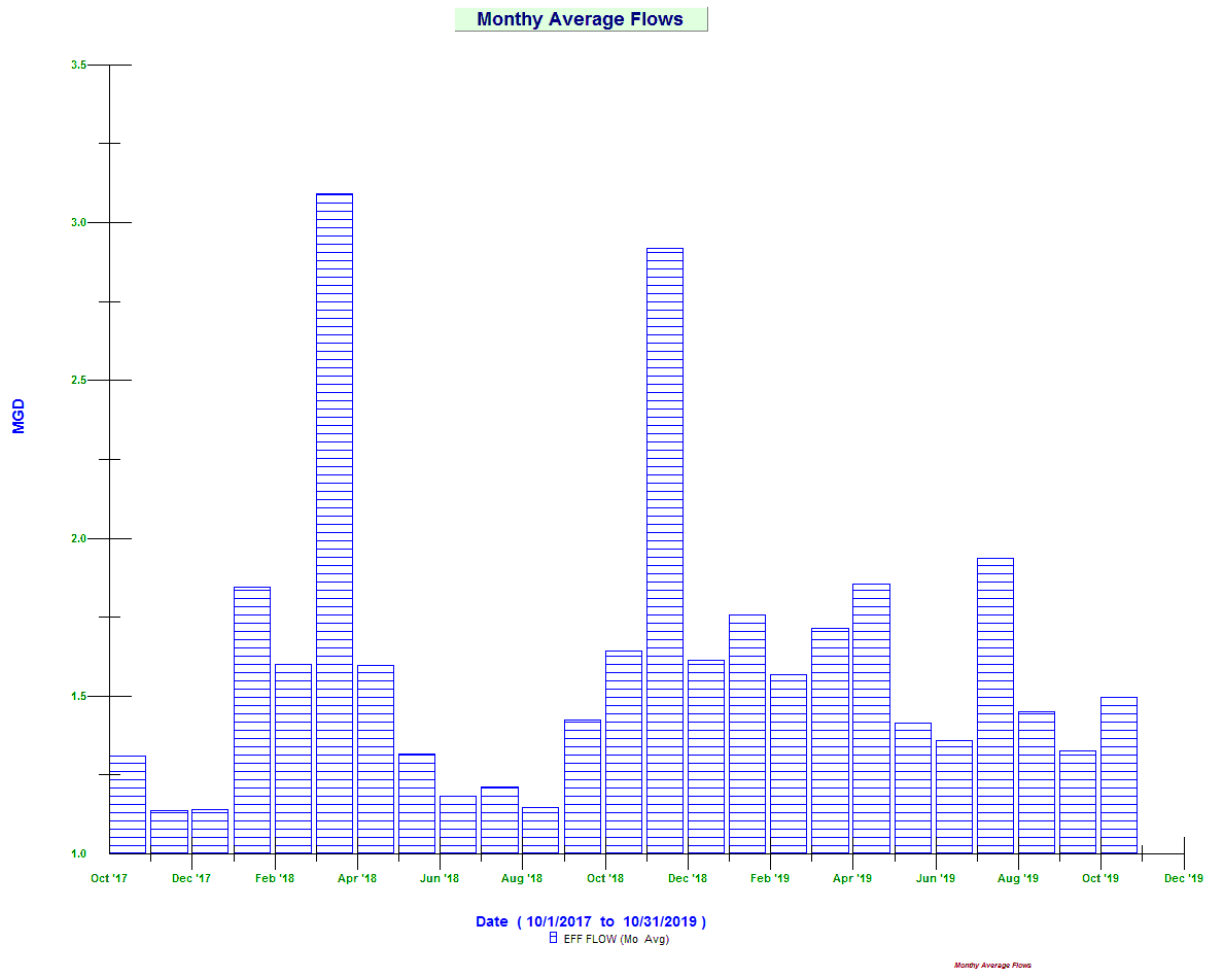
Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
Oct 2017	1.310	1.194*	2080	2997	87	225
Oct 2018	1.643	1.906 *	1080	1337	56	109
Oct 2019	1.496	1.670*	1740**	4439**	62	202

* 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 that is monitoring influent sewage flows. This meter will be tied into the Scada system soon.

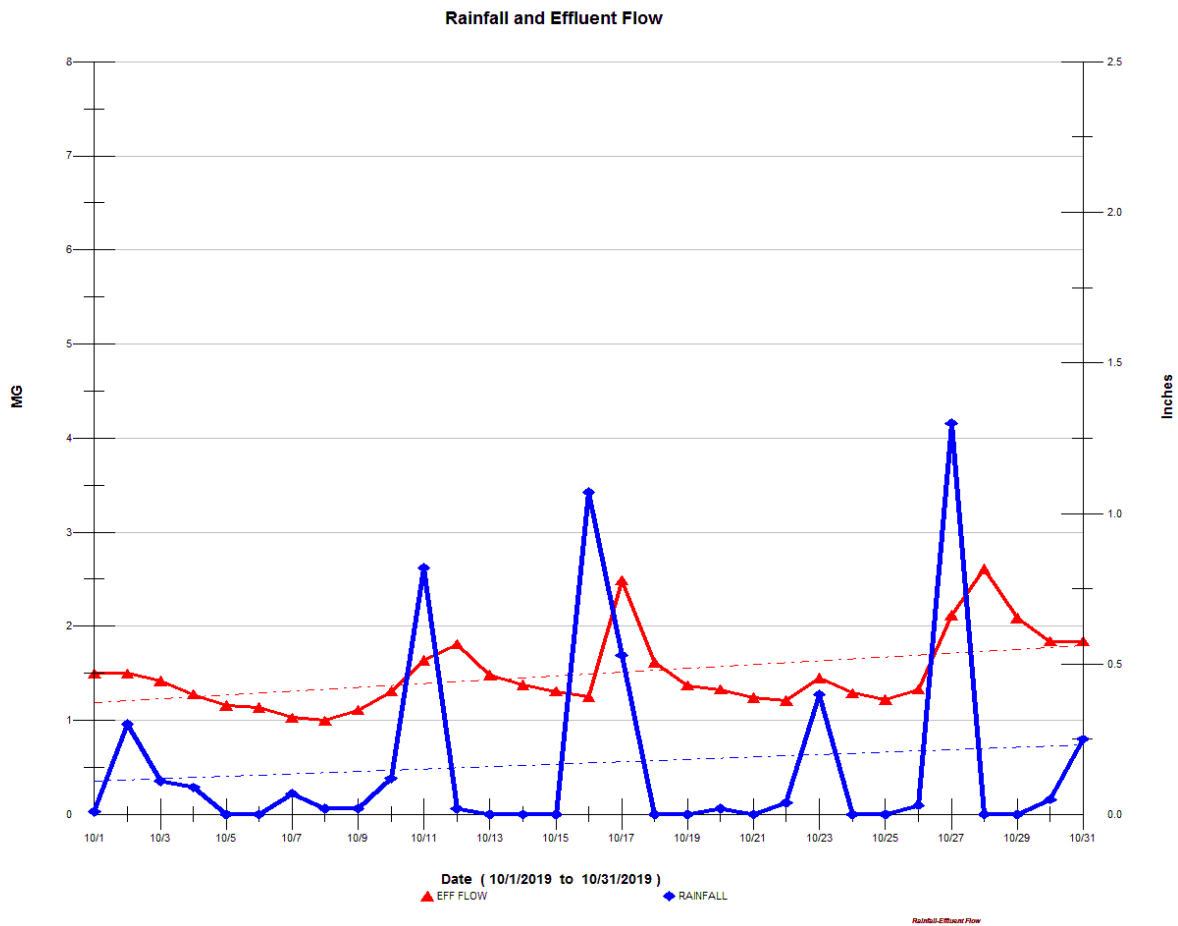
** Influent sewage dirty on some sample days, yielding higher loading, due to interceptor cleaning project.

2.1 AVERAGE EFFLUENT MONTHLY FLOWS – TWO YEAR COMPARISON



Monthly average flow for October was 1.5 MGD, slightly higher than September, and like previous several months. There were three significant rain events in October. The total precipitation for the month was 5.27 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 a good indication of the influence that the heavier rainfall periods had on the effluent flows. There were several events that significantly affected plant flows. Inflow and Infiltration out in the collection system has been noted in the past with the increased effluent flow values when it rains.

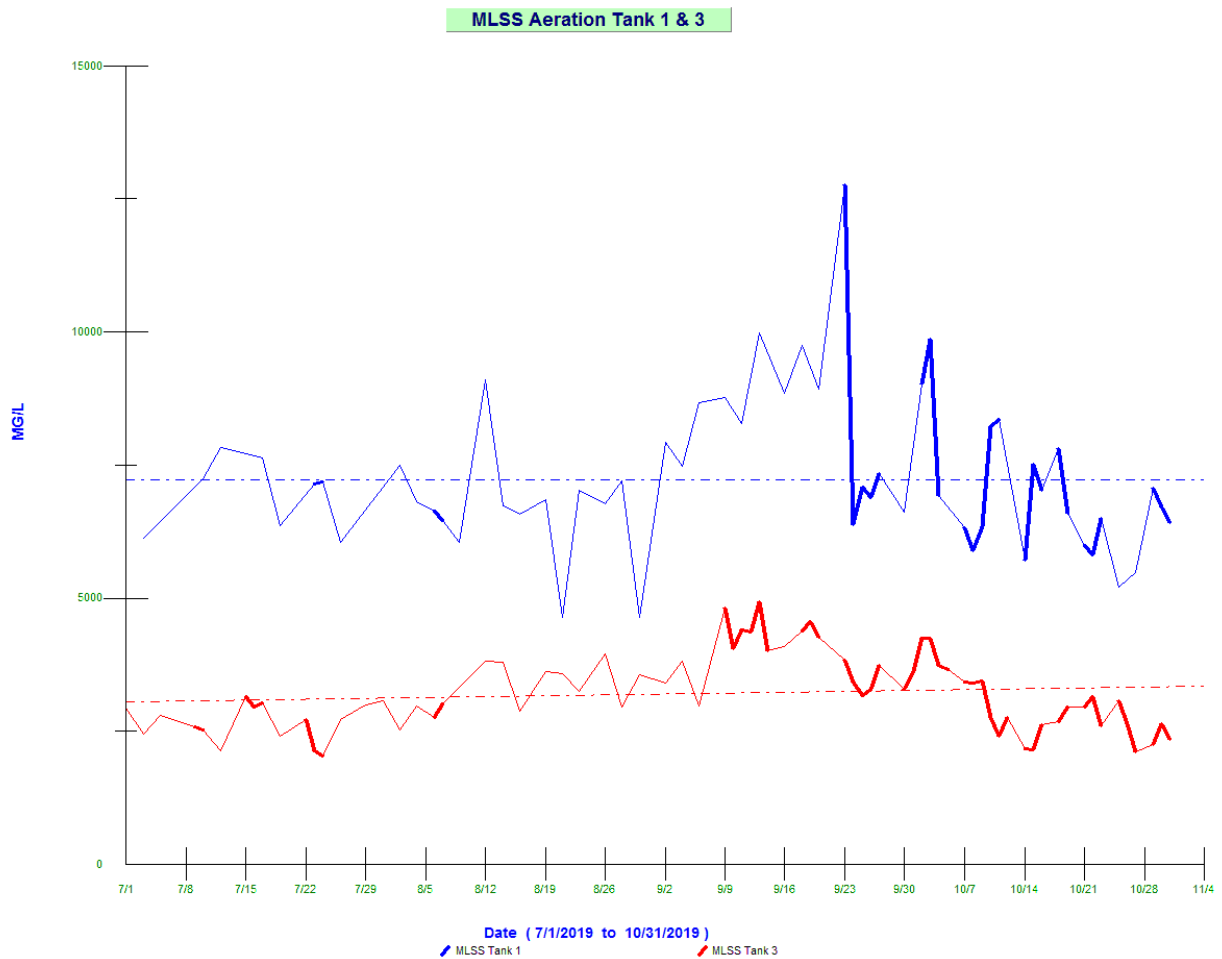
3 COMPLIANCE



➤ Plant Effluent

- There were no permit exceedances for the month of October.

Plant process conditions continued to be maintaining very well, and the aeration tank solids inventory has been up and down, but recently dropping as the Nantasket Ave. interceptor cleaning continues. Wasting rates were higher and the RST operation in September by approximately 40-50%. The clarifier surface was good during the month and effluent clarity is also good. We continued to have only one secondary clarifier was online. Sludge settleability remained good and very rapid. No chlorination of the RAS was needed. The aeration process mode remained in contact stabilization mode, and all sewage bypassing the primary clarifiers, with varying amounts of limited flow into aeration tank #1, depending on system inventory and the influent plant flows. The current split is approximately 10-15% to aeration tank #1, with all RAS flow going to aeration tank #1, and approximately 85-90% of flow going into aeration tank #3. This process mode allows for lower solids loading to the secondary clarifiers, minimizes filamentous bacteria formation, and nitrifying bacteria predominance, while maintaining a higher system solids inventory and good sludge settling characteristics. As noted above, the system solids have high due to the interceptor cleaning. W&C has held off placing the primary clarifier and gravity thickener online to minimize odors around the facility



Trend showing MLSS levels in the aeration tanks over the past four months, since the interceptor cleaning began. The trend shows the rise in concentration through mid-October. There was a corresponding increase in the wasted sludge gallons, however, the facility started to catch up & lower the solids inventory by the end of October. The cleaning days were comparable to September.

- A Copy of the NPDES report for October 2019 was submitted to the 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.
- The Use of Drylet continued, and the additive has contributed to improved secondary effluent quality and bacterial augmentation of the process. This observation was seen especially during the heavier loaded days and during higher flow periods. The costs for use of the Drylet product is being paid for by W&C. The goal to be achieved is that the product costs will be offset by the lower sludge

generation and lower sludge disposal costs. The daily dose of Drylet product continues at the original “2 scoops” dosed (2 pounds).

Photos below show the typical October conditions with the plant in the contact stabilization mode process flow mode, with some feed to aeration tank #1 also. The flow split is ~90% to aeration tank #3 and ~10% to aeration tank #1. There were some fluctuations in the inventory of solids, due to the interceptor cleaning project, but overall lowering of the solids concentrations in that tanks. Continued good settling characteristics in the secondary sludge and low [slightly higher] turbidity in clarified effluent. Moderate brown system color in aeration tank #3, and no odors. The month progressed where the aeration color has gotten lighter, to a more normal color, due to the lighter load of solids from the interceptor cleaning.



Aeration tank #1-darker foam – high solids



Sec clarifier #1 [slightly cloudy]



Aeration tank #3 [moderate brown color]

- There were no SSO reports submitted in October.
- SPCC: Regular inspections of the new AST and fuel day tank, as well as container storage of waste oil. Updated file. Materials were ordered for the containment system for the Godwin pump secondary containment from Vortex Turnkey Solutions. Vortex will install the liner under the Godwin pump unit, as well as install the additional “honey bucket screens” on the suction and discharge lines. The future 8-inch Premier portable trash pump is expected to be delivered in late November and is compliant with SPCC regulations. Currently under review - hoses and fittings needed for the 8-inch pump.

4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY – OCTOBER 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 Max	Period Daily Max	# of Samples	# of Violations
Eff TSS	MG/L	50		45	30	1 X Week	17.0	15.0	23.0	5	0
Eff TSS	LBS			1152	768	1 X Week	201.1	125.1	287.7		0
% TSS Rem	%		85			1 X Month	95.9				0
Eff BOD	MG/L	50		45	30	1 X Week	4.9	3.0	6.6	5	0
Eff BOD	LBS			1152	768	1 X Week	61.7	25.0	108.1		0
% BOD Rem	%		85			1 X Month	96.9				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.22	0.00	0.63	93	0
Eff Fecal	#/100 ML	260			88	1 X Week	10	10	10	5	0
Eff pH	SU	8.5	6.5			1X Daily	7.0	6.8	7.2	31	0
Enterococci	#/100 ML	276			35	1 X Week	16	10	30	5	0

- There were 144 effluent samples taken in the month of October with zero [0] NPDES Permit exceedances.

Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
October 2017	40.61	63,000
October 2018	50.93	36,000
October 2019	46.37	63,000 *

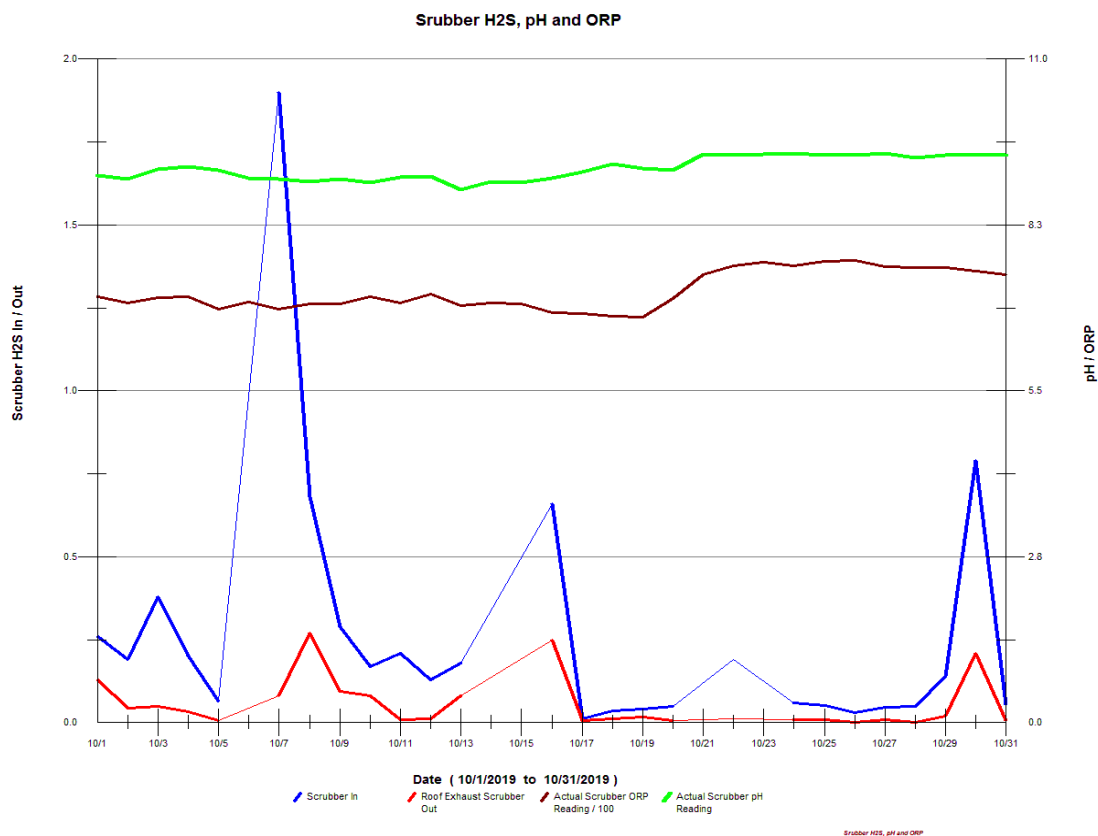
* Impact from interceptor cleaning, with increased solids processed/disposal quantity

5 ODOR CONTROL

There were no odor complaint calls during the month of October. The gravity thickener and primary clarifier remained off-line in October as these tanks have historically are the source of a lot of the odors within and around the facility, if in service during the warmer weather months. With the recent sewer interceptor project work, the #2 PC was readied for potential service, due to the high solids loading to the plant. However, due to the sensitivity to odors in the immediate area, we held off putting the tank into service, as the gravity thickener would also have been needed. There were still some scraper/plows on the bottom of the rake mechanism that need to be replaced, due to rotted components. The delivery of stainless-steel stock for fabrication of new plows was delayed, therefore, holding up completion of tank work.

The above ground sludge storage tank was in service to receive thickened sludge from the RST thickening process, and this tank is typically emptied typically during the weekday Monday through Friday period, lessening the chance for odors during the filling of the truck. There were some Saturday pick-ups for sludge due to processing rates and limited sludge storage capacity. The goal is to avoid any potential odors over the weekend period. The secondary scum well is also pumped out during the week, to avoid odors on the weekend. There is continued flushing of the aeration tank troughs to minimize build-up of solids that can cause odors. The off-line aeration tanks and clarifiers kept empty to prevent odors.

The odor scrubber system was on-line for entire the month. The scrubber fan speed remains at the mid-range due to moderate levels of hydrogen sulfide production. With the continued addition of Bioxide at PS 3, the H₂S levels have been stable. The facility realizes electrical savings, when the fan operates at a lower speed. Adjustments to setpoints were made due to fluctuation in loading on the scrubber and temperatures.



Graph shows some very small peaks for H₂S to the scrubber, and most of these are below 1.0 ppm. These [blue] peaks are due to the H₂S peaks, at the time of the Jerome meter sampling, which is a grab [one-time] sample. The time of day when the grab sample was collected can affect the H₂S reading observed.

- The odalog and in-pipe units in the manhole at Water Street and Nantasket were removed for several days, while GMPS continued with their work in that area.
- “In-Pipe” bacteria addition continued with all 24 dosing stations operational. No additional actions taken for headworks sulfide reduction plan proposed by “In-Pipe. The inspection/replacement with full bottles took place on 10/15-16/19. No additional kick-start vegetable protein and bacteria was added in October. The kick-start program will continue to follow the monthly plan, with the addition of more bacteria to the system. 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] The re-load plan is delivering an additional 5.4 liters per month in total (1.8 liters x 3 locations). The goal is to see if we get a step change and reduce odors, while at the same time potentially reducing sludge. This change is being monitored closely. There is no additional fee.
- On-going – frequent pumping out of the secondary scum wells. Tank cleaning performed quickly and as needed. For the warmer weather months, this activity is scheduled during the week, to avoid unforeseen odor issues on the weekends.
- 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.

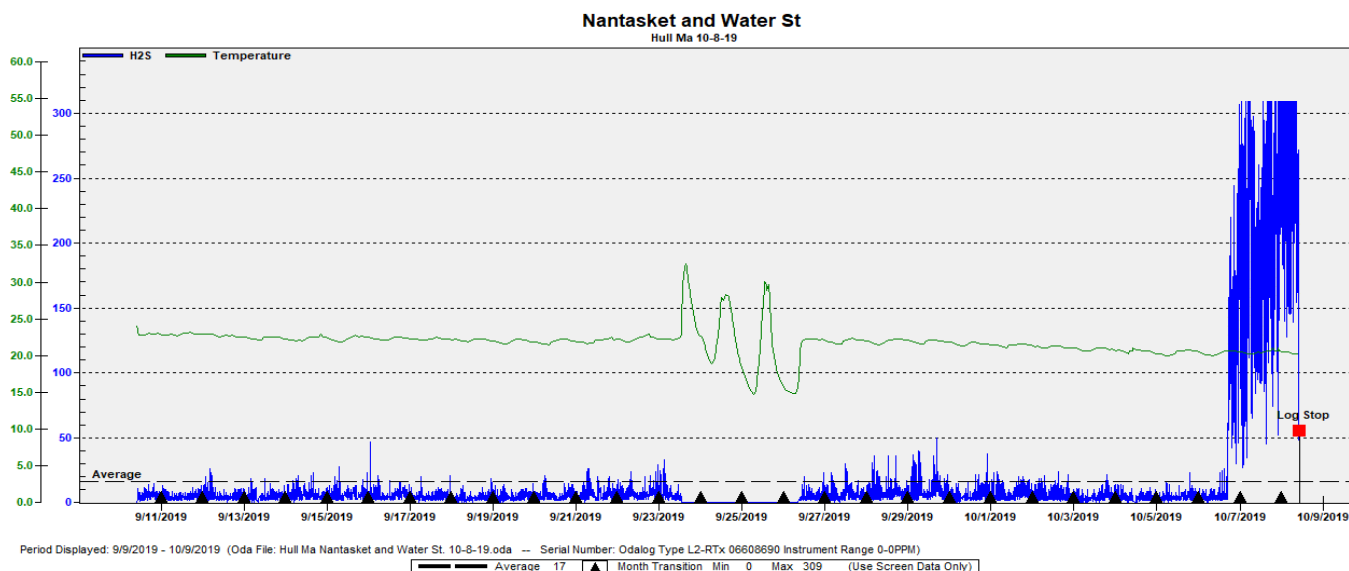
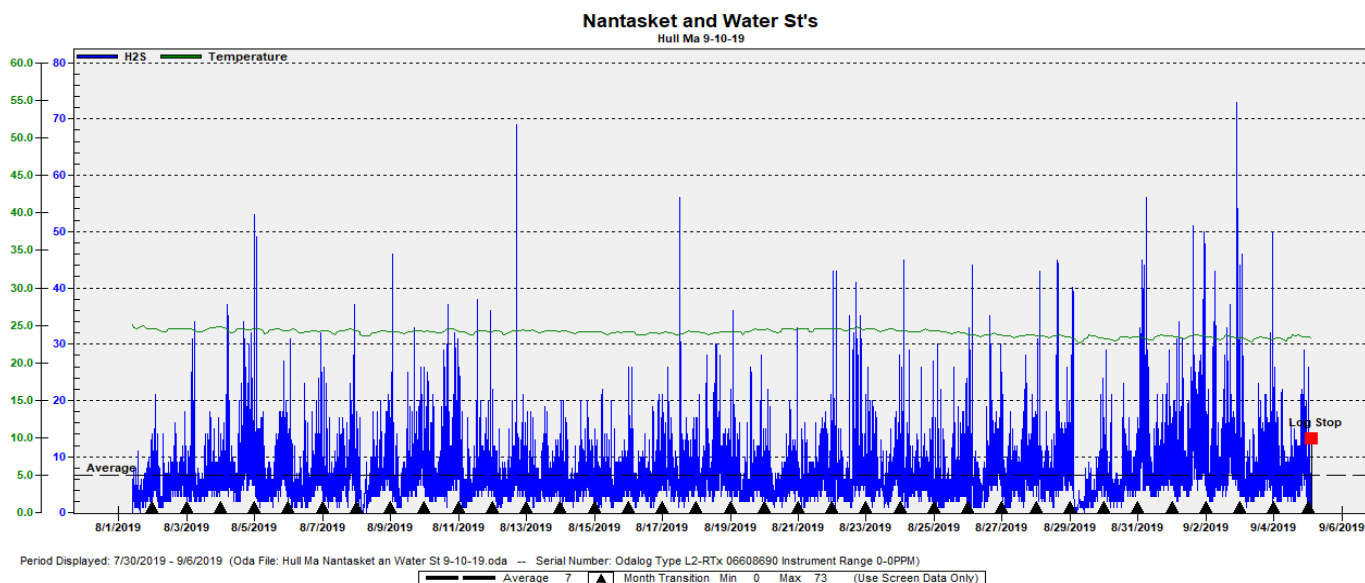
The Bioxide system continued to operate at the same feed rate at 137 gpd. The system was not operational from 10/5 to 10/16, due to no chemical inventory. Evoqua also has some delivery issues, which delayed replenishing the system supply. The September/October data from the odor data loggers was downloaded from the manhole locations on 9/10/19 & 10/8/19. Overall, everything continues to look very good in the main interceptor system and at the plant. The Nitrate residual is carrying all the way down the Hull interceptor sewer line, indicating effective treatment the H₂S₂.

The latest odalog data collected by Evoqua for the October operating period is noted below. The bulk tank was empty from Oct 5th to Oct 16th. Also, no data for XYZ manhole, since the meter that was deployed was not properly turned on. The meter at Nantasket and Water Street was removed from the manhole from ____ to ____ while the GMPS work was taking place.

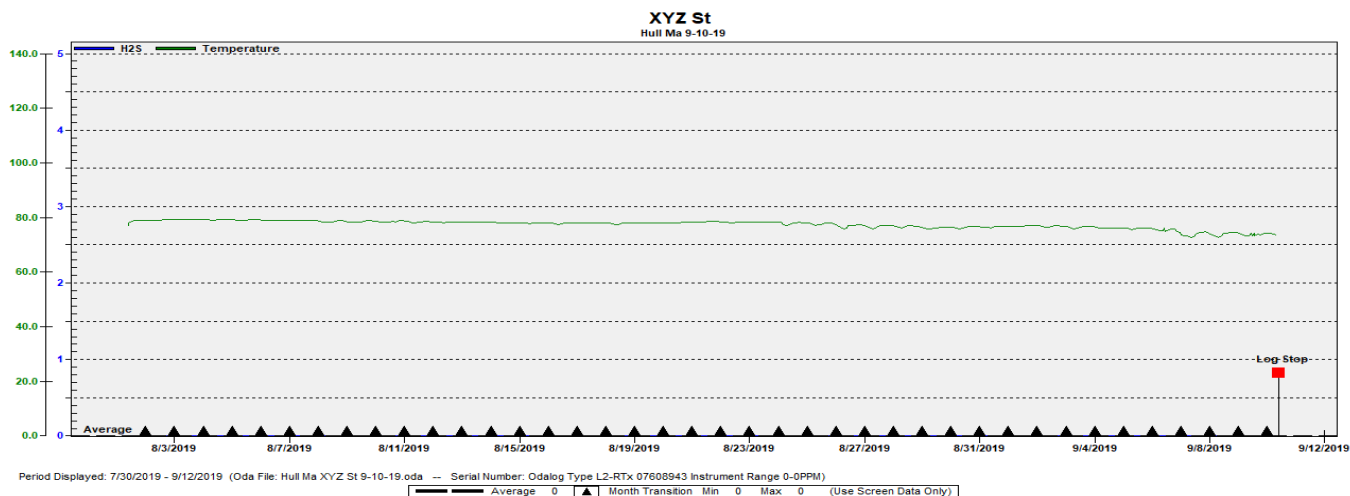
			Total			Chem	Vapor Phase Data			Adjusted	Tank	
			Sulfide		Temp.	Res	Min.	Max.	Avg.	(Target) Dose	Drop	
Date	Sample point	Time	mg/L	pH	C	mg/L	ppm	ppm	ppm	GPD	GPD	Comments
9/10/19	20125 MH	9:30am	0.0	7.0	19.5	0.0	0	324.0	8.0			Download meter and re-deploy P#1 on 45min off 15min 2off
9/10/19	XYZ St's	9:45am	0.0	7.5	19.8	5.0	0	0.0	0.0			Download and re-deploy meter
9/10/19	Nantasket an Water St's	10am	0.0	7.1	20.1	10.0	0	23.0	1.0			Download and re-deploy meter
9/10/19	Bay St MH	10:15am	0.1	6.8	20.2	0.0	0	46.0	3.0			Download and re-deploy meter

			Total			Chem	Vapor Phase Data		
			Sulfide		Temp.	Res	Min.	Max.	Avg.
Date	Sample point	Time	mg/L	pH	C	mg/L	ppm	ppm	ppm
10/8/19	same MH20125	9:30am	0.0	7.4	18.1	0.0	n/a	n/a	n/a
10/8/19	XYZ	10:00 AM	0.2	7.1	17.1	0.0	n/a	n/a	n/a
10/8/19	Water/Nantasket	10:15am	1.0	7.2	16.6	0.0	0	309.0	17.0
10/8/19	Bay St MH	10:30am	0.2	7.3	17.2	0.0	0	59.0	8.0

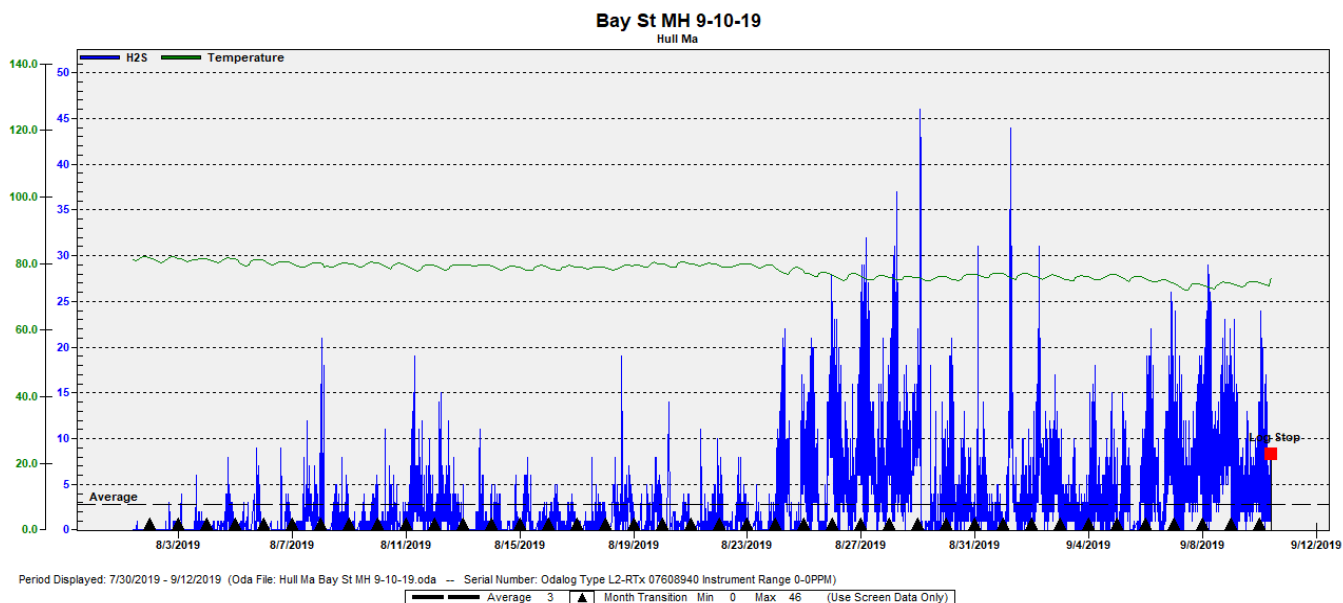
Nantasket & Water Street: September graph shows low H2S – 20-30ppm H2S and October indicates the same levels, until the product ran out on 10/5-10/6, where spike in H2S is seen. The presence of H2S is mostly the result of the contributions from Pump Station #4, which discharges to same manhole where the force main from Pump Station #3 ends.

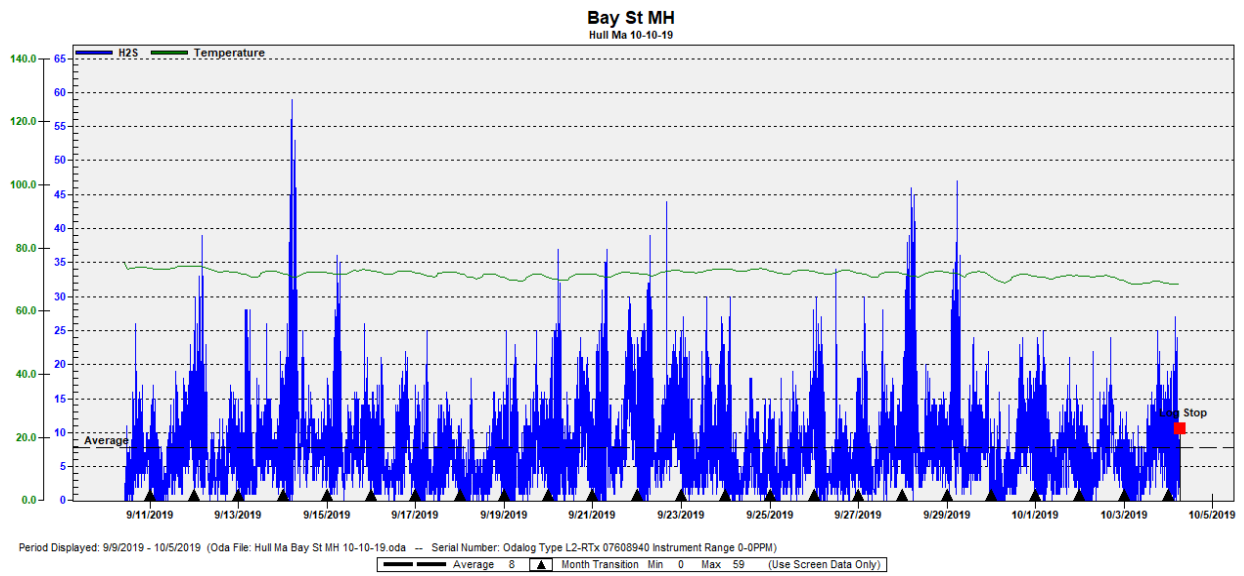


XYZ Street Manhole on Nantasket Ave: No H2S seen in this manhole, since the Bioxide Nitrate residual carries through all the way through the Nantasket Ave interceptor. No data logged for October.

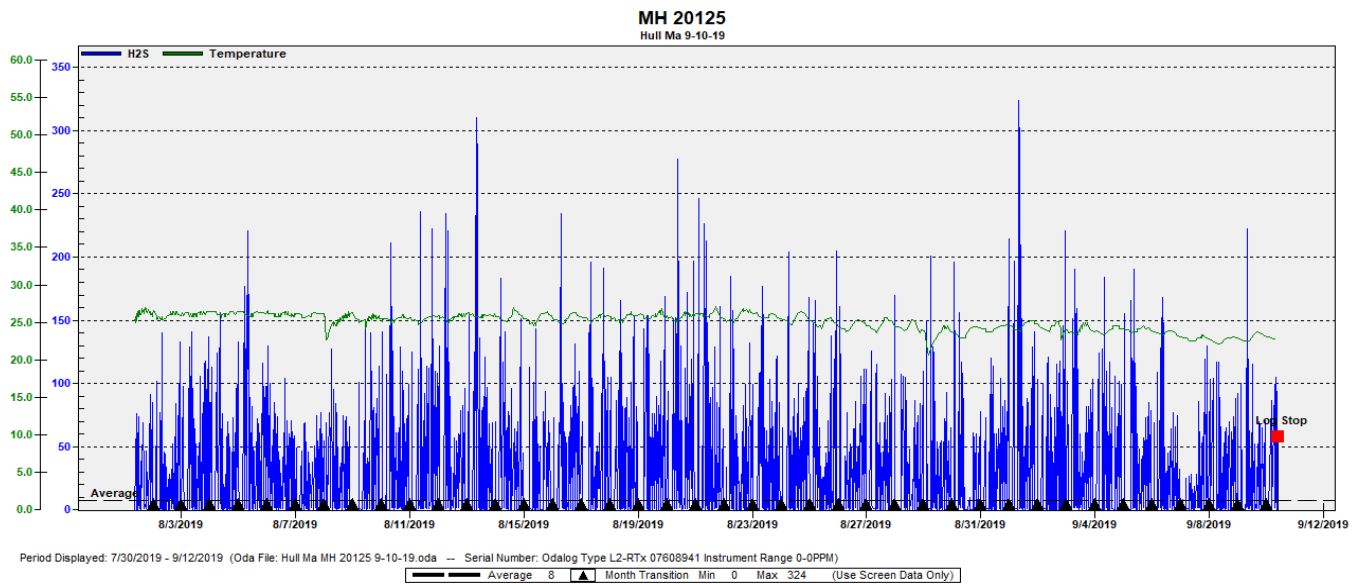


Bay Street Manhole before Water Street: Typical H2S levels, no chemical addition in this part of the system.





Manhole #20125: Nantasket Ave just before WPCF but receives flow from Spinnaker Island. H2S levels average approximately 100 ppm [Sept 2019]; no data logged for October.



6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

The SEMS monthly work order summary for October is compiled and attached as a pdf file for review.

Key items of note are listed below.

- 1) In-Pipe units – battery change out, dosing unit cleaning and inspection and circuit board troubleshooting and replacement as needed.
- 2) On-going E-1 Repairs at FRMahony. Replaced 2 grinder pumps: 42 Wyola Rd. and 183 N Truro. Remaining inventory all repaired and currently at 8 pumps, a combination of repaired pumps and new pumps.
- 3) On-going issue – continuing to add oil to sec clarifier gear boxes, since only one S.C. is online. All the existing Amwell units have leaks [lower gear box seals are no good]. The only exception is primary clarifier #2, where the unit is ok. We are using a flowable grease product that of heavier consistency to lessen the amount of leakage. The estimated use of product with just SC1 online is about 0.5 gallons per week. The other 2 units - [SC #2 and GT #1] will need to be filled up before use.
- 4) Weekly exercise without loads and Monthly load tests completed on all generators including the portable generator and pump stations. Batteries replaced on main generator [Kohler 750]
- 5) On-going repairs to the Rotary sludge thickening [RST] unit – drum wheel replacement on-going as needed. Failed drum wheel picture noted below. New drive chain installed. Drum drive sprocket is very worn and in need of replacement.
- 6) Scrubber fan unit maintenance – monthly maintenance performed – belts and motor are good.
- 7) Scrubber pH and ORP probes – install new probes & calibrate. Also replace various tubing on caustic feed injection to recirculation loop.
- 8) Replace mechanical seal on plant water pump #1
- 9) As a result of the RCM project, several additional scada alarms were input to the system, if a panel failure occurred within the system.



- 10) Replace various restroom fixtures – faucets in Men's room & locker room, ladies room toilet paper holder. Install shelf for supplies.
- 11) RAS pumps – cleaning on debris accumulating in the pump impellers – weekly maintenance.
- 12) High winds on 10/16 – caused for roof exhaust fan to fall over [was never secured to roof properly] & panels to odor scrubber enclosure blown off.



- 13) All Pump Station wet wells inspected. PS 3,4 & A wet wells cleaned on 10/24. [pictures after cleaning]



PS 4

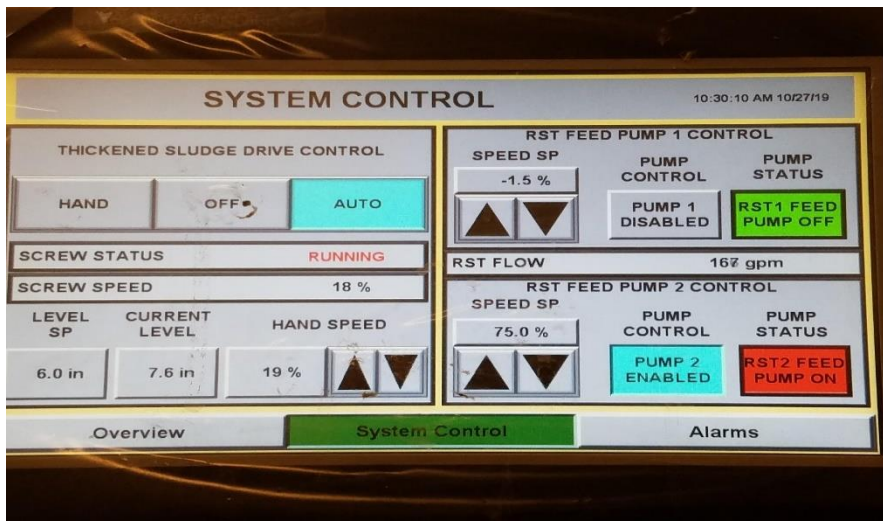


LS A



PS 3

- 14) New ladder for PS1 – installation started on 10/31.
- 15) Fire alarm – semi-annual testing completed. One smoke detector replaced in men's room.
- 16) PS1 – new electrical junction box installed on 10/29 & wire in dehumidifier in pump room – Fellows Electric.
- 17) Pnumerator system back on line 10/1/19 by Comm tank.
- 18) 10/11 – town wide power loss – plant and pump stations on emergency power for approx. 1 hour – no issues.
- 19) Change chlorine residual probe in CCT and install small submersible pump to create some mixing in the area of the probe. Also, install new probe holder for easier servicing of unit.
- 20) RST system – set up new hopper probe for thickened sludge pump control. SCADA group set up and fine tune controls. System will allow for automatic level control. [panel picture in RST room]



- 21) Hypo room piping – demo old piping, and ready room for new piping where needed. New flange kits and gaskets installed on tank outlets. Chemical feed pumps set up on new fiberglass grating shelf.



- 22) W&C Plant truck: remove & rebuild front differential and various front-end components. Performed by in-house plant staff member Dave Wilson. Also, town owner Fisher V-snowplow serviced at Fredrickson Bros [Fisher dealer]





Please see the attached summary of the Asset Management accounts for contract year (5).

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

While the projected costs and actual costs combined total exceeds the 05M planned budget, adjustments and decisions are being made on a regular basis based upon priorities and unforeseen costs. The planned list was initially set up to layout a planned budget for the contract year. Some items are shaded in comment section that most likely will be planned for next contract year.

If a capital project is completed the cost to complete is noted under “final cost.” All the capital “102B” items have been listed together in the planned expenditures list.

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 October.
- Ongoing - Daily safety briefing meetings, review site safety policies with sub-contractors, safety tailgate topics. Pure Safety topic– October "Ladder" safety.
- Evacuation drill held on 10/29/19 with Hull Fire Dept – Capt. Roy Ahlquist sounded the drill. Staff evacuated and met at the rally point. Discussed evacuation procedures and routes and fire safety.
- Safety eyewash unit – change safety solution
- Some staff received flu shots along with sewer department
- Monthly staff safety meeting conducted on 10/31/19 - AV and RH presented.
 - Reminders for daily safety briefing topics and discussion points & documentation. Review "Lessons Learned" from September 2019 - Near misses and incidents from other company projects.
 - Pure Safety reminder – "Ladder Safety"
 - Toolbox topics – Confined space entry safety and why use of PPE important
 - Review of site-specific policies on PPE hazard assessment, confined space inventory, respirator protection program, and evacuation drill
 - OSHA top 10 – list of incidents
 - Reminder that certain areas in Massachusetts still at "critical levels" for EEE and West Nile virus – take precautions

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 September discussed.
- Operational updates and process control discussions, especially with recent electrical issues and plant shut-downs, pump station operations, odor issues, dig-safes, etc.
- Jim G continues to work with staff on various SEMS updates – work order management & scheduling, gas meters – PM and CM, and calibration.
- RCM – Reliability Centered Maintenance workshops – on-going held at the facility – several days in October. Focused on the plant’s Scada system, power distribution and electrical system.
- Bill Boornazian received MA Grade 7C wastewater license. [highest level in State of MA]
- Bill B attend W&C regional manager’s meeting
- Planned training calendar for November – Dave W and Ryan H to attend intermediate wastewater short course in Nov/Dec.
- Hull facility featured in MWPCA quarterly newsletter – plant profile and staff picture.



Staffing related items:

- Continued involvement with Mass Maritime [MM] internship program/career fair for future interns. Corporate human resources department leading the effort for future intern for next year's winter and summer months.
- Sunday rotation schedule in place with Jim Gagliard working every other Sunday, and remaining weekends being filled by Roger B., Aram V., and Bill B. When Bill is not scheduled for a Sunday, he will be 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. Had Richard [Dick] Gould from the Linden Ponds project in for various fill-in coverage as needed. Mostly with daily pump station rounds/inspections, weekend lab tasks, and if additional staffing needed for special projects.

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								
Feb., 2020								
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 October.

- 58 Warminster Rd.
- 32 Porazzo Rd.
- D Street Outfall pipe
- MH frame & cover inspection – Allerton Hill, Nantasket Ave, Atlantic Ave
- Co-ordinate pump & haul for Hing PST while Nantasket Ave MH work continued
- LS A drain back of force main while repairs being made
- PS 1 FM drain back for test pit excavation/inspection
- 101 Nantasket Ave – blockage call out check

Manholes:

- Staff continues to respond to rattling manhole covers, broken manhole covers/rim and sunken manholes covers/rim.

Dig Safe mark outs:

- Dig-Safe mark outs were completed throughout the Town of Hull in order to assist/facilitate the Town's paving projects and the emergency repairs of the broken water lines, broken sewer laterals due to gas main work.

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

10 PROJECT MANAGEMENT & ADMINISTRATION



10.1 ON-GOING PROJECTS AND SUPPORT ITEMS

- The current summary for the account status for and the year 5 asset management accounts, as of 12/4/19, is included as an attached pdf file with this report. The 05M checkbook spreadsheet with proposed maintenance task plan for the year was set up and presented as an attachment with this report. The plan has been updated to reflect recent changes in the spending plan, with adjustments made as projects were completed. There is still some adjustment need in areas where there is “on going” work. [i.e. sub-contractors, goods and services, etc.]
- Assist the sewer department with proposed items for purchase from encumbered funds, primarily from the critical spares list. Complete and send out the request for quotation [RFQ] for the Amwell drives installation. The delivery of the Amwell gear drives has been delayed to late November, at the earliest due to production backlog.
- The Flygt effluent submersible pump, and the plant water strainer are all in production and W&C is waiting delivery. Continued to work on finalizing the portable generator purchase through the “Sourcewell” contract. The new lawnmower was ordered.
- The procurement of D Street equipment items continued – new pumps and electrical VFD’s. The portable trash pump remained set up at the station with float control for remote starting capability, as well as the existing pumps. The pump was tested regularly to confirm readiness. The pump ran on 10/17 due to heavy rain, power loss, and storm surge. The new pumps were received but sent back to the factory due to poor shipping condition. The pumps were going to be retested and reshipped.
- Since the existing HVAC ductwork in the basement is in poor condition as noted last month and had fallen partially in some areas, the room was off limits to the staff until support bracing could be installed. W&C reached out to contractors for an estimate to remove the affected sections, but the paint contents [low level PCB’s] prevented getting back any quotes for removal and disposal at this time. Additional floor bracing was installed by the staff to support ductwork where need, so that access could still be made to those areas. This bracing will remain in place until the building HVAC project commences.
- As noted in September, the Town met with regional EPA enforcement group and gave David Turin and Elizabeth Kudarauskas a plant tour on 9/19/19. On-going discussions and informational requests have been taking place with the EPA to host their annual “Field” exercise workshop at the Hull facility.

Conference calls have been held and the date for the field exercise and site visit was set for Wednesday 11/20/19. The EPA is set to also visit the facility on 11/19 for the pre-trip inspection and set up of the training stations.

- On-going work continuing in the back room - spare parts storage areas being worked on to improve on inventory control and plant orderliness. Consolidation and boxing up of materials. W&C investigated and has arranged for the disposal of failed electronic items on 11/19/19. A recycling company will pick up all unusable items [failed UPS units, old computers with hard drives removed, other electronic items that are not functional].
- 10/15-17 – IPC Lydon on site for effluent pump room work – remove all old HVAC equipment, hydraulic lines for isolation gates, seal off all wall penetrations to make the room more water-tight in the event of room flooding.



- W&C operations team working with Nick V and Tim H (W&C engineers) for the PS 5 evaluation and new pump and piping recommendations and bypass piping rearrangements, pump room floor. Also, attend and work with team on Headworks & Pump Station Structural Rehab project and the Facility Planning project. Multiple meetings and condition assessment staff assistance onsite as well. Other project assistance with pump station 1 bypass planning, and outfall pipe inspection.
- RS continued work on the Annual Operating Report for contract years 3 and 4.
- BB working with BK and HSD on feasibility of installing a buried 20" gate valve that would serve as an effluent pump room isolation gate, since the existing gates are inoperable. The isolation gate would serve as protection in the event needed, and for isolation to allow for future repairs in the room.
- Drylet bacterial process enhancement continued in October. There are no changes in the process plan. The product's effectiveness and costs will be reviewed annually. [See effluent/compliance section]. The interceptor cleaning project phase has had a significant impact on increasing the solids inventory in the facility, resulting in more days of sludge thickening, and disposal costs.

- Attempts to set up the roofing repair work with the local roofing contractor for the operations building stairwell roof repairs not progressing well. It is unlikely that the “contractor pre-qualification” process will get completed.
- Pump Station 9 [PS 9] – Currently operational, with both pumps. The “special order” check valve was received from the manufacturer in July, however, the replacement work is on hold due to the station’s structural issues.
- Set up temporarily the previously utilized parshall flume flow meter for monitoring influent sewage flow. The transducer is currently mounted over the flume channel and the transmitter will get mounted in a permanent location in the basement. There will be a tie-in to SCADA.



Influent Headworks – parshall flume in channel under the grating

- The pump station ladder replacement project is underway with Boston Forging and Welding commencing the installation of new ladder at PS 1. When completed, the contractor will move on to PS 3.



- The Hull WPCF plant was profiled in the October newsletter of the MWPCA [Mass Water Pollution Control Association]. Details on the staff, design capacity and layout & description of the process were provided. [picture in staffing section]
- Assisted with effluent outfall inspection dye testing on 10/1.

- Met and conducted the tour with the Aquasight group for the “AI” project
- Several pieces of used office furniture picked up from the Dedham office for use within the facility. Several file cabinets, map drawers, and bookcases were used in various areas, as these items were available at no cost to the Town.