



woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

HULL WATER POLLUTION CONTROL FACILITY

June

2019

MONTHLY OPERATING REPORT



NPDES NO. MA0101231

Table of Contents

1	Executive Summary	2
2	Flows and Loadings	3
2.1	Average Effluent Monthly Flows – TWO Year Comparison.....	4
2.2	Monthly Summary of Rainfall and the Influence on Effluent Flows.....	5
3	Compliance.....	6
4	Key Performance Indicators.....	8
4.1	Water Quality – June 2019.....	8
5	Odor Control.....	9
6	Maintenance Summary.....	13
6.1	Tasks Completed This Month.....	13
6.2	On Going Project Updates.....	17
7	Safety	19
8	Staff Development	20
9	Collection System.....	21
9.1	Wet Well Cleaning.....	21
9.2	Collection System Maintenance.....	21
10	Project Management & Administration	23
10.1	On-Going Projects and Support Items.....	23

Cover pictures: [top] HMLP working on elevated transformer project
 [bottom] D Street Stormwater Station Response

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 June 2019.

- No lost-time incidents for the month of June.
- There were 136 effluent samples taken in the month of June. Please see page (8) for details.
- There were no effluent permit violations.
- Plant average flows were similar to May average flows. Overall rainfall higher than May, with several days where intense rain shower activity occurred. The average daily flow for the month was 1.36 MGD. A total of 5.55 inches of rainfall was recorded for the month.
- The plant and collection system odors were moderate to significant, but the bioxide system was in service for the entire month, and adequate dosing of bioxide was achieved, with good results. No dose changes were made.
- Asset Management Accounts checkbook for tracking of expenses is on-going for the close out of year #4. A summary of the close totals for [04M], is attached. 05M checkbook totals year to date is on-going and attached. A review of the account status between W&C and Hull Sewer Dept. is an on-going process.
- There was 1 grinder pump call out during the month of June that the staff responded to and corrected.
- On June 7, 2019 at 407 Nantasket Ave. There was a blockage in the building lateral at the sewer main area which led to the basement area back-up. A cleanout was installed on 6/7 in attempt to jet the line. Since this was unsuccessful, the line was fully excavated and repaired on 6/8.
- W&C O&M staff assisted where requested, for review of the "Critical Equipment" specifications for the SRF funded account.
- Electrical transformer project completed in June with new elevated transformers in service. HMLP and SES Contractors performed the upgrade as part of a DEP funded resiliency grant. W&C staff assisted on-site where requested.
- There was one noise complaint called in mid-June, and the scrubber fan motor bearings were found to be noisy and the cause for the elevated noise levels. The bearings were greased and new drive belts installed, which lessened the noise.
- W&C assisted with the MADEP's site visit on June 20th to inspect the recent energy grant projects completed. The final report was submitted.

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



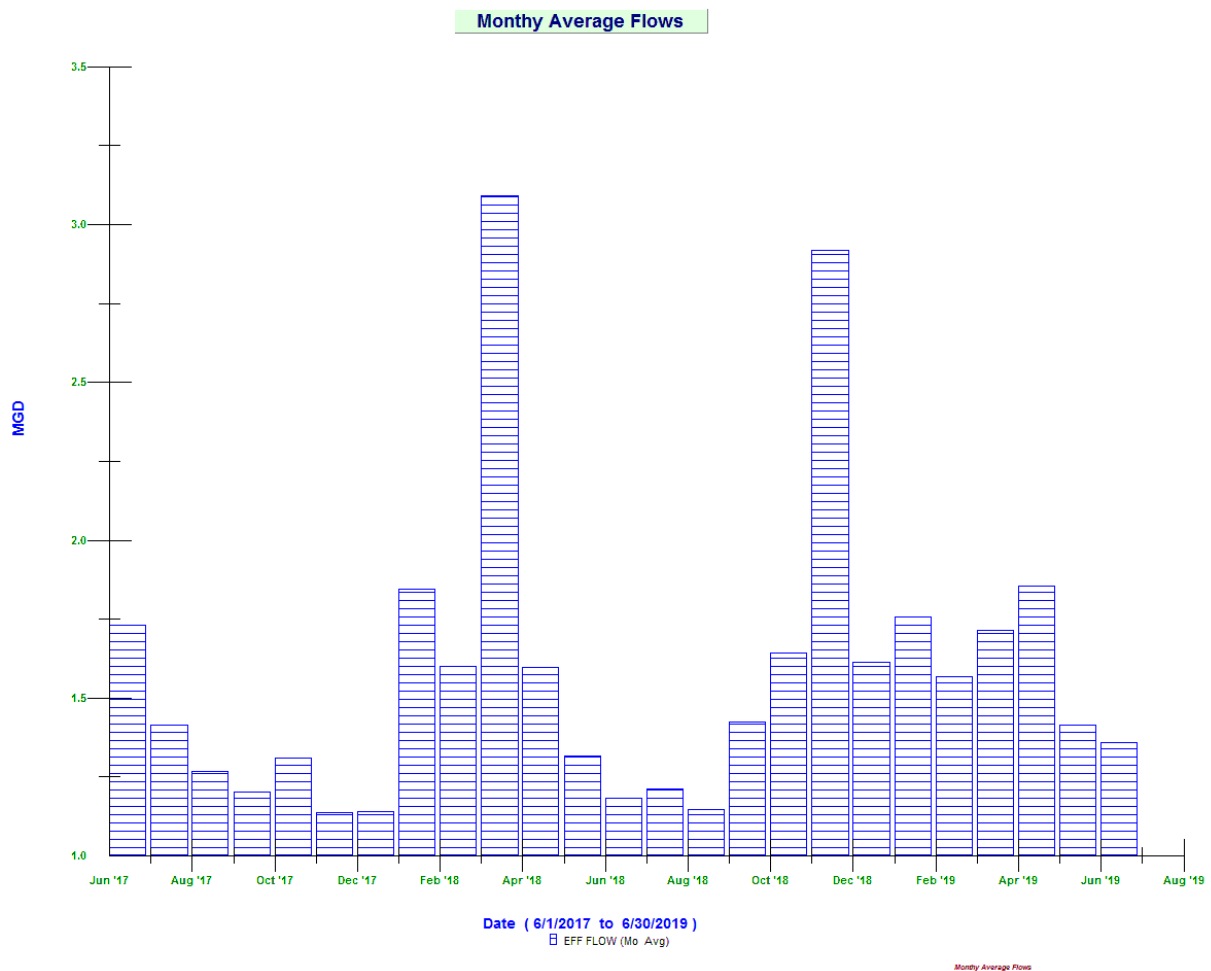
Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
June 2017	1.731	1.842*	2233	3183	188	320
June 2018	1.183	1.602 *	1084	1778	67	149
June 2019	1.359	1.613 *	880**	2555	60	163

* 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.

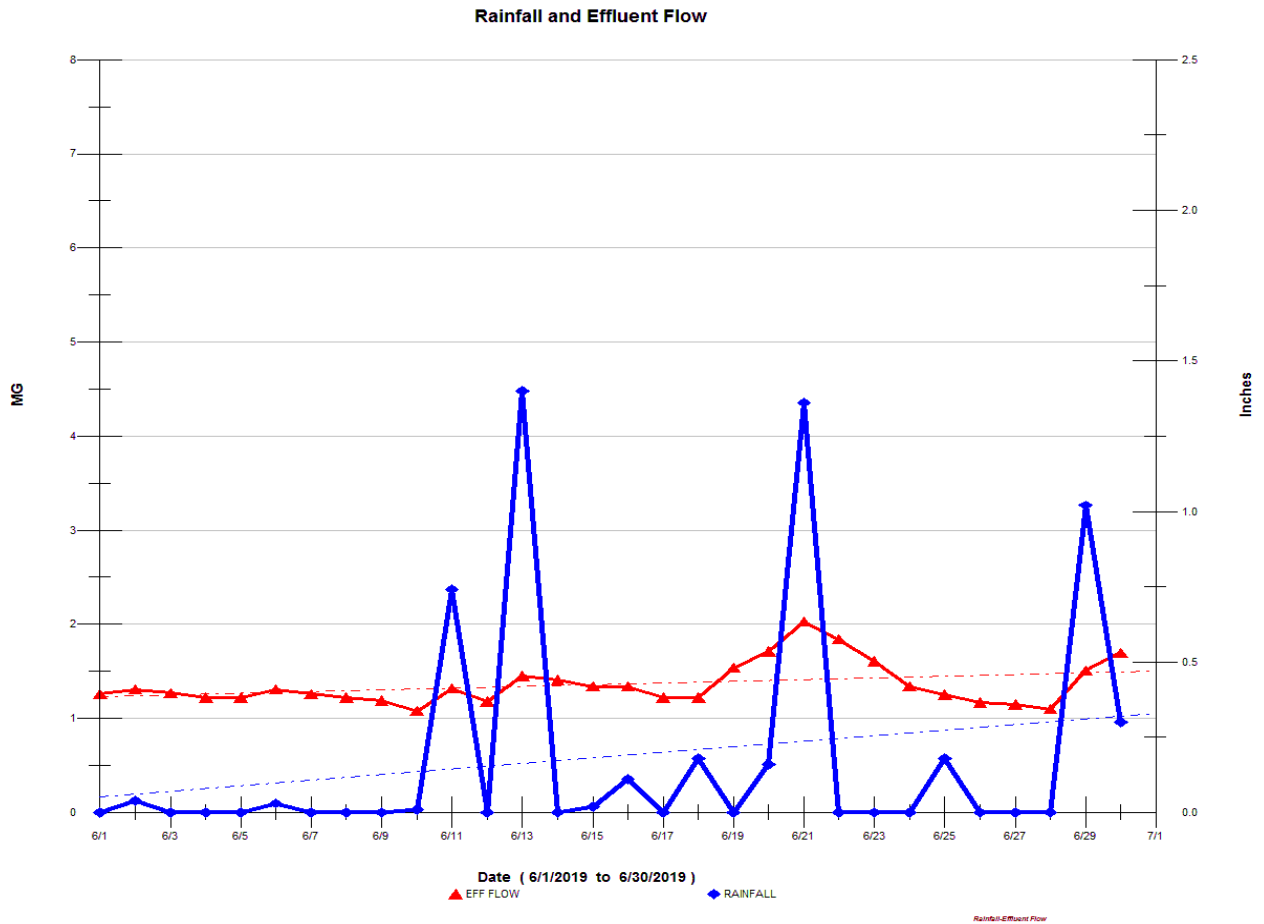
** Inconsistent sampling of influent sewage due to sampler line drop location and Godwin pump suction pipe at influent manhole.

2.1 AVERAGE EFFLUENT MONTHLY FLOWS – TWO YEAR COMPARISON



Monthly average flow for June was 1.36 MGD, an amount similar to May., and similar to June 2018. There was several moderate to heavy rain events in June. About 1/3 of the days in June saw some precipitation. The total precipitation for the month was 5.55 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 rainfall [Blue Peaks]. This graph provides a good indication of the influence that the heavier rainfall periods had on the effluent flows. There were 4 events that impacted plant flows. Inflow and Infiltration out in the collection system has been noted with the increased effluent flow values when it rains.

3 COMPLIANCE



➤ Plant Effluent

- There were no exceedances for the month of June.

Plant process conditions continued to be good & maintaining very well. The clarifier surface was good during the month. Only one secondary clarifier was online. Sludge settleability remained good and no chlorination of the RAS was needed. The process solids inventory was fairly stable with minor variations depending on plant flows and wasting schedule. The aeration process mode remains 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 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, while maintaining a system inventory that is higher.

- A Copy of the NPDES report for June 2019 was submitted to the DEP and then forwarded to the Hull Sewer Dept.
- Continued working with corporate team [Frank C & Alan F] for 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 improved secondary effluent quality was very evident, especially during the higher flow periods. The costs for use of the Drylet product is one that W&C has assumed, and the hope is that the product costs will be offset by the lower sludge generation and lower sludge disposal. The daily dose of Drylet product continues at the original “2 scoops” dosed (2 pounds).
- To date, the facility’s biological system continues to operate very well with the supplemental bacteria that is being added daily, and secondary clarifier performance is very good.

Photos below show the typical June conditions with the plant in contact stab mode process flow mode, with some feed to aeration tank #1 also. Good settling characteristics in secondary sludge and low turbidity in clarified effluent. Moderate brown system color, and no odors.



- There was one SSO reported on 6/7/19 at 407 Nantasket Ave as a result of a sewer lateral line blockage at the sewer main connection. The building basement was flooded with some backed up sewage, but contained to the basement area, until the repairs were made on 6/8/19. An attempt to identify the source of the blockage was attempted on 6/7, when a test pit was dug to see if the line could be cleared with a sewer jetter. When this could not be done, the lateral was to be excavated on the following morning. The incident response and details were summarized in the SSO form and submitted to all required agencies. Refer to the maintenance section.
- SPCC: Regular inspections of the temporary AST, new AST and fuel day tank, as well at container storage of waste oil. Updated file.
- EPA QA/QC Study #39 samples analyzed and submitted on 6/28 for lab analysis.

4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY – JUNE 2019

Parameter Info		Permit Requirements					Results				
Parameter	Units	Daily Max	Daily Min	Weekly Avg. Max	Monthly Avg. Max	Freq	Period Avg.	Period Min	Period Max	# of Samples	# of Violations
Eff TSS	MG/L	50		45	30	1 X Week	15.5	10.0	20.0	4	0
Eff TSS	LBS			1152	768	1 X Week	162.5	104.3	220.2		0
% TSS Rem	%		85			1 X Month	93.7				0
Eff BOD	MG/L	50		45	30	1 X Week	5.7	4.8	6.6	4	0
Eff BOD	LBS			1152	768	1 X Week	59.9	48.8	68.8		0
% BOD Rem	%		85			1 X Month	93.1				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.11	0.01	0.49	90	0
Eff Fecal	#/100 ML	260			88	1 X Week	10	10	10	4	0
Eff pH	SU	8.5	6.5			1X Daily	6.8	6.6	7.0	30	0
Enterococci	#/100 ML	276			35	1 X Week	10	10	10	4	0

- There were 136 effluent samples taken in the month of May with zero [0] NPDES Permit exceedances.

Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
June 2017	51.92	90,000
June 2018	35.50	88,000
June 2019	40.77	70,500

5 ODOR CONTROL

There were two odor complaints reported in June 2019.

- 49 Marginal Road – 6/4 homeowner complaint – found sewer line blockage due to root intrusion at intersection of Hampton Circle and Andrews Ave. The line blockage was cleared.
- 87 Bay Street – 6/4 – unrelated to sewer after inspection

The gravity thickener and primary clarifier remained off-line as these tanks are the source of a lot of the odors within the facility, if in service. The above ground sludge storage tank has been in service to receive thickened sludge, and this tank is emptied during the weekday Monday through Friday period, lessening the chance for odors during truck filling on weekends. Also, the secondary scum well pumping is limited to week-day periods to avoid odors on the weekend. Continued flushing of the aeration tank troughs to minimize build-up of odors.

The odor scrubber system was on-line for entire the month. The scrubber fan speed was at a mid-range due to lower levels of hydrogen sulfide production, however, the H₂S levels were on the rise as the month progressed along. The facility realizes electrical savings, when the fan operates at a lower speed.



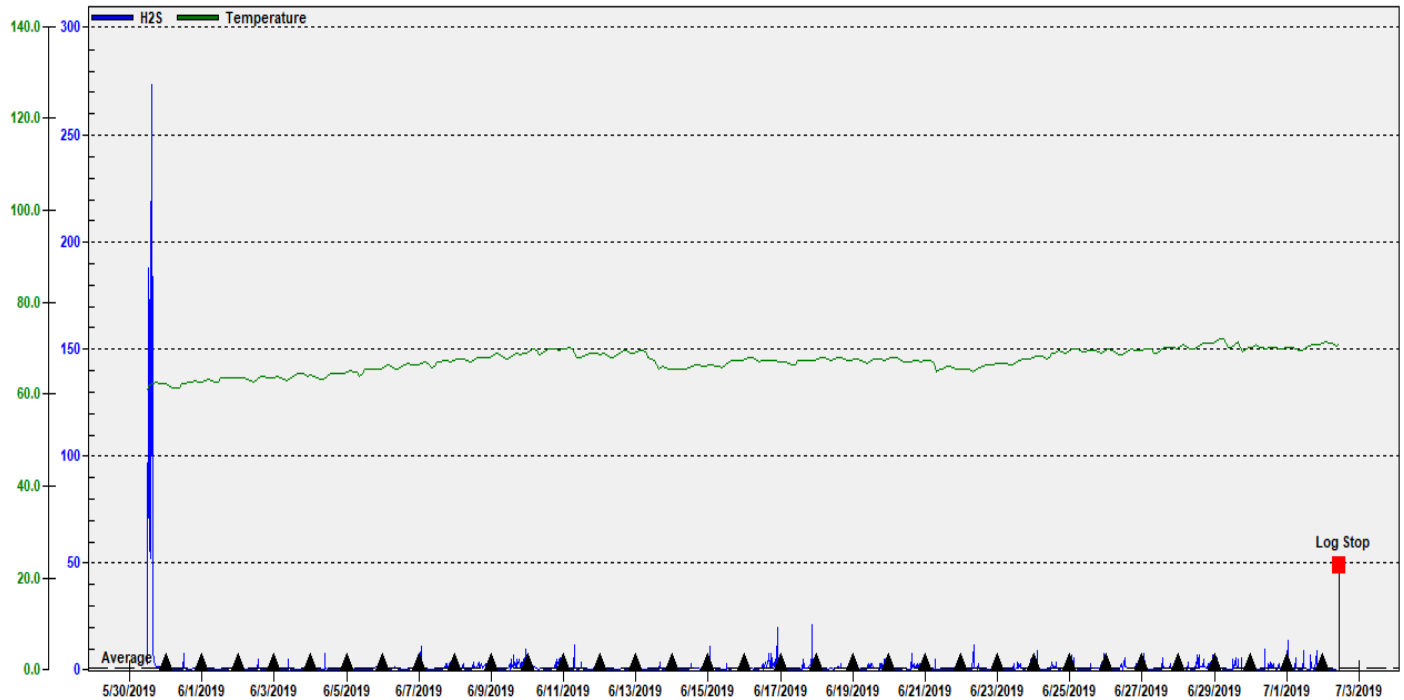
Graph shows some small peaks for H₂S to the scrubber, but these are all below 1.0 ppm. These [blue] peaks are primarily due to the H₂S generated in the drain back after the sludge truck is filled. The lines are drained to the headworks to prevent pressure build-up and odors. The portable H₂S meter was functional during the month.

- “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 6/14/19. Additional kick-start vegetable protein and bacteria were added to all locations during the monthly service visits. The program continues to follow this plan and after the summer months, we will evaluate overall effectiveness and odor reduction. 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 over the summer months, for pump stations and at the plant.
- On-going – frequent pumping of the secondary scum wells. Tank cleaning performed quickly and as needed. For the warmer weather months, this timing of this activity to be scheduled during the week only, 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 4 & PS 6 are on timed control through SCADA. Added additional station mixers at PS 1 and PS 9 to timed control through SCADA.

The biocide system continued to operate at a feed rate at 137 gpd. Data from the odor data loggers was downloaded from 4 manhole locations on 7/2/19. Overall everything was looking very good. The Nitrate residual was carrying all the way down the Hull interceptor sewer line, effectively treating the H₂S. The inspection did note the Spinnaker Island odors in the report and Odalog data loggers were deployed at 2 additional sites (XYZ Street MH & Bay Street MH)

Nantasket Ave Intersection MH

5/30/19 to 7/2/19

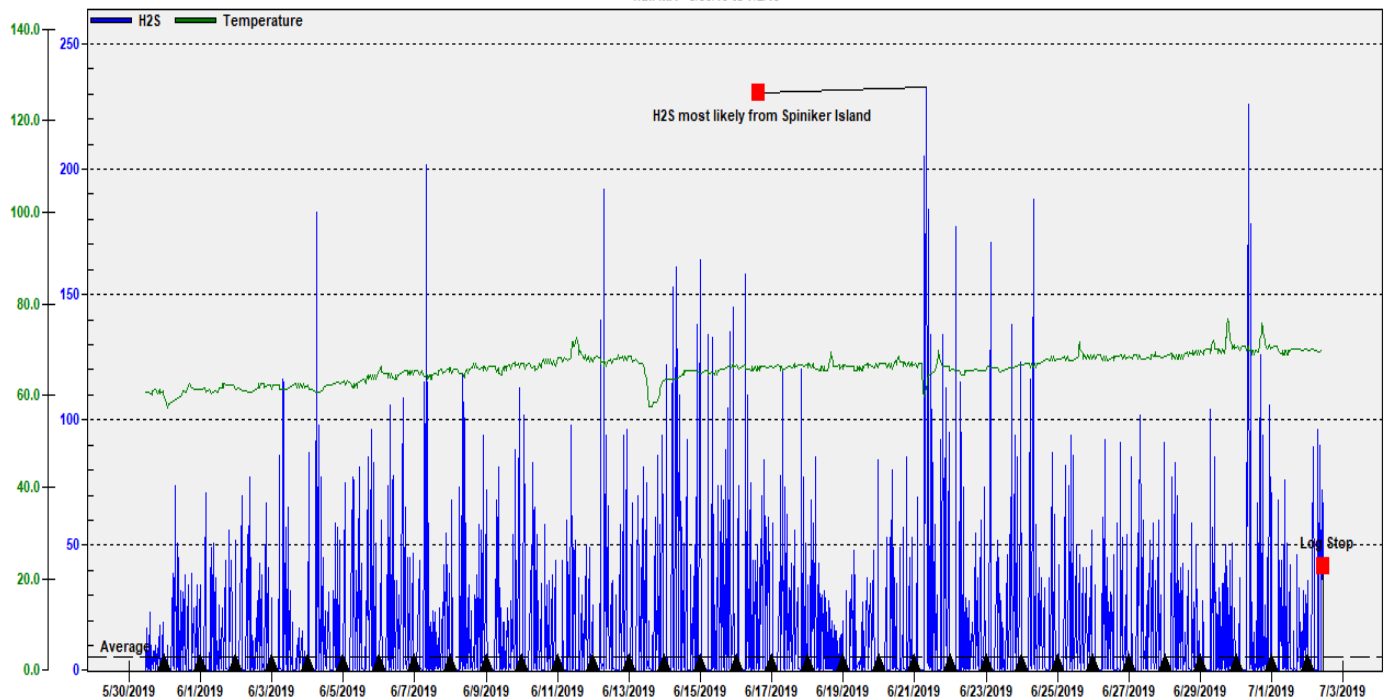


Period Displayed: 5/28/2019 - 7/4/2019 (Oda File: 20190702_07608939_01.oda -- Serial Number: Odalog Type L2-RTx 07608939 Instrument Range 0-0PPM)

— Average 1 ▲ Month Transition Min 0 Max 274 (Use Screen Data Only)

Last manhole before WWTP MH 20125 / PS 3 flow sample was Nitrate of 20

Hull MA - 5/30/19 to 7/2/19



Period Displayed: 5/28/2019 - 7/4/2019 (Oda File: 20190702_07608940_01.oda -- Serial Number: Odalog Type L2-RTx 07608940 Instrument Range 0-0PPM)

— Average 5 ▲ Month Transition Min 0 Max 233 (Use Screen Data Only)

Manhole at Nantasket Ave and Water Street [end of force main from PS 3 & PS 4]

			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
7/2/19	MH 20125	10:15 AM	0 mg/l	7.2								
7/2/19	MH 20125	10:15am	0 mg/l	7.2		5 mg/l	0	233.0	5 ppm	137 gpd		download, redeploy meter. H2S from Spinnaker Island No
												PS 3 flow - This is the last MH before WWTP
7/2/19	XYZ Street MH	10:35 AM	0.0			10 mg/l	na	na	na	NA		deployed meter to monitor this MH
7/2/19	Water ST & Nan	10:40 AM	0.0			20 mg/l	0	274.0	1.0	137 gpd		H2s from Bay street (Vapor) redeployed odalog
7/2/19	Bay Street MH	11:00 AM	trace			0.0	na	na	na	NA		deployed meter at Bay Street MH to monitor
												Nitrate looks ok, Leave feed system at 137 GPD per Aram.

6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

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

Key items of note are listed below.

- 1) In-Pipe units – battery change out and circuit board troubleshooting and replacement as needed.
 - On-going E-1 Repairs: Replaced Grinder pump at 44 Chatham
- 2) On-going issue – the need to add oil to sec clarifier gear boxes and the GT gear boxes. All of the units have leaks [lower gear box seals are no good]. We are using a flowable grease product that is heavier to lessen the amount of leakage. The estimated use of product with just SC1 online is 0.5 gallons per week. The other 2 units - [SC #2 and GT #1] will need to be filled up before use.
- 3) Weekly exercise without loads and Monthly load tests completed on all generators including the portable generator and pump stations.
- 4) Responded to SSO at 407 Nantasket Ave on 6/7/19. Work with Town and Contractors in attempt to resolve the blockage issue on the afternoon of 6/7. When the blockage could not be cleared, a decision to excavate the next morning was coordinated by the sewer department and Aqualine Utility. W&C assisted where needed with the basement inspection and use of the push camera.



Inner liner from relining project



Debris build-up at end of lateral



New cleanout in parking lot

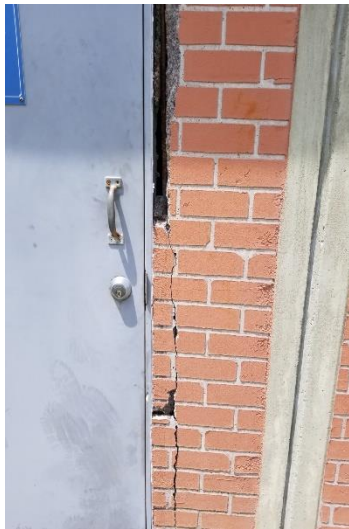
- 5) D Street modem issues due to lightning strikes. Reprogrammed modem on 6/19 only to have it fail about 2 weeks later in another electrical storm. A new modem was programmed and installed. The modem technology along with copper wire connection is outdated and new modems are unavailable now. Eventually the copper circuits will not be supported by Verizon in the future. An upgrade plan for all of the pump stations is to be prepared and discussed. Staff responded to a number of high wet well alarms due to severe rain events in June. The portable trash pump was operated during these periods.
- 6) Other station comm fail alarms due to power losses and Verizon communications issues. Resolved.
- 7) On-going repairs to the Rotary sludge thickening [RST] unit – drum wheel replacement on-going as needed. New alignment wheels/bearings on order.
- 8) One of the portable 4-inch trash pumps [4A] was taken out of service due to pump bearing and mechanical seal failure. The second portable 4-inch pump was set up at the D Street station, while repairs to the other are underway.



new bearings and seal required

- 9) Addressing recent Yazkawa variable frequency drive issues [VFD] due to internal cooling fan failures. The drives are approximately 6 years old. The VFD's were inventoried, and a supply of fans were ordered to cover all of our units. If they do experience a cooling fan failure, the drive and equipment are inoperable, unless there is a bypass feature.

- 10) Repairs made to entry door at PS A, as the door frame had become warped due to building settling. The door was binding and wall structure deteriorating. Anchors were installed to expand the door frame to allow for proper door closure. Other areas where gaps existed in the building were sealed off and caulked.



Existing condition



Repaired frame



Finished grout/caulk

- 11) Scrubber fan unit maintenance – motor bearings re-greased due to noise, and new belts installed. Also, the fan blades were cleaned due to debris build-up causing additional vibration.



new drive belts



motor fan readjusted

- 12) Test run all effluent pump VFD's in the bypass mode, since the verification had never been checked after the drives were replaced in 2013. An earlier test had caused a sub-panel trip that feeds these drives. Found one of the pumps [#3] was wired incorrectly and the pump was rotating in reverse [in bypass mode].

- 13) Interceptor transducer by PS 6 - reading erratic readings prompted inspection that found the transducer had moved out of place in the holder that it was in. Staff repositioned and readings more stable. A return visit is still needed to stabilize more.
- 14) An odor complaint from homeowner at 49 Hampton Circle led to a sewer line investigation that found surcharged manhole, as a result of root intrusion. Rosano-Davis assisted with a pump truck and their trailer jetter to clear the obstruction.
- 15) Replaced cracked 6-inch piping for the sludge truck filling line. New section of pipe and flanges installed.



- 16) A number of Dig-Safe mark outs and sewer manhole frame and cover inspections completed, due to emergencies, upcoming paving projects, planned replacements. Responded to all calls regarding rattling manhole covers, broken manhole covers/rims, sunken manholes covers/rims. Where possible new manhole cushion rings installed. All collection system work that W&C completed is documented in the monthly Work Order Report and utility cloud.
- 17) Main PLC in panel RIO 3 – the back-up power supply failed during a power loss transfer, causing the loss of power to the panel and scada. An alarm callout was initiated on 6/18 and response by staff bypass the battery back-up. The new back-up power supply that was ready for installation was hooked in within the next few days, with a scada tech and electrician on site.
- 18) Remote scada connection was programmed in using the sonic wall [firewall] versus the TeamViewer software issues until licensing issues could be cleared up. Remote log in is very useful for monitoring the plant and pump stations during inclement weather and when staff are dispatched during non-routine hours.

6.2 ON GOING PROJECT UPDATES



- Drylet bacterial process enhancement trial continued in June. Going forward the process plan is to continue use of the product as long as benefits seen. Therefore, the project approach will not be referred to a “trial” going forward. The effectiveness and costs will be reviewed annually. [See effluent/compliance section].
- Electrician working on evaluating pump station ventilation issues to correct deficiencies. Also, for permanent wiring of the grid-bee aerators for pump station wet well aeration completed at PS 1 and PS9.
- An alternative use for one of the existing primary clarifiers, especially the #1 PC, is still being considered, since the drive unit had sustained extensive damage. Conversion to a mixed tank and floating aerator are being considered. This would allow for hydraulic flow into the tank, keep it mixed and fresh, and not restrict flow at the D-box, which is currently a concern, as having the primary tanks off-line in the warmer months eliminates many of the odors around the facility. To date a couple of budgetary quotes have been received.
- Pump Station #1 – The new pumps are currently operating normally. Output flows from each pump are being investigated to determine how higher capacities could be reached. Pressure tests and drawdowns / flow testing was completed in January and found slightly higher pressures are contributing to lower outputs than the original design points. The pump assemblies were checked in March and found to be clear of any debris. In review of prior reports and investigations it was determined that the pump capacities were always lower than the designed points, going back to the 1980’s. It was also found that the motors are not reaching their full load amps and have approximately 25% more available amps that handle an increase in flows if the impellers are upsized. Aram & Bill are working on summarizing the findings and evaluating larger impeller trim sizes to take advantage of the existing available motor power.
- The co-ordination with Duperon for a site visit to inspect the influent channel flex rake has been scheduled for mid-August [8/13-14]. The technician will be on site for a day to inspect the unit and provide an evaluation with recommendations. There are no current issues other than corrosion of various components of the system.

- Working to obtain quotes for the operations building roof repairs. Currently there is one quote provided by the current contractor hired for the annual inspections.
- Pump Station 9 [PS 9] – Currently operational, with both pumps have leaking mechanical seals. One of the pump assemblies was replaced with a used one for the short-term, while service is being done on the removed pump assembly. The spare pump assembly has been repaired. A new “special order” check valve has been ordered for the station and expected delivery is in July. The other pump assembly parts have been ordered. This check valve, one isolation valve, and pump assemblies will be replaced later this summer. At PS #9, the structural and overall station condition assessment and corrective action is part of the larger structural project being discussed.
- As a result of the PS 4 force main leak, W&C working with HSD to address a modification to the bypass connection that was installed in mid-May. The current riser pipe will be changed to be sub-grade with a drain line installed.
- Updating facility’s electrical/scada drawings, with all of the recent changes & additions [SRose and AndyM]
- Energy Grant project has met substantial completion. Additional record drawings were worked on during the month of June.
- W&C staff coordinated the CZM project for the new transformers raised on poles and new electrical service into the building. W&C supported the electrical contractor with site access as well as Hull Light. W&C staff oversaw the transfer back to utility to make sure the building equipment was protected and came back online properly. W&C staff also provided generator power for the plant during the “cut over”. Bill Boornazian provided additional support to EESCO to coordinate new generator and main breaker settings adjustment.

Please see the attached summary of the Asset Management accounts for contract year (4)

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 for the month of June.
- Working with Risk Management Team for sub-contractor approval for Williamson [for D Street Pump removal project]
- Safety Stand Down discussion on 6/55/15 – Trench incident, where employee slipped and fell injuring their elbow.
- Ongoing - Daily safety briefing meetings, review site safety policies with sub-contractors, safety tailgate topics.
- Facility's Jerome H2S meter returned from factory repair
- Respirator fit testing for Joe B and Dave W. [done by Jim G.
- Pure Safety topic– June – “Poisonous Plant Safety”
- Monthly staff safety meeting conducted on 6/28/19
 - New hire and intern safety reminders
 - Lessons Learned from May 2019 - Near misses and incidents from other company projects.
 - National Safety Awareness Month – Discuss various topics from OSHA Magazine
 - Reminders for daily safety briefing and discussion points
 - Nurse triage hotline reminder
 - Cumulative Trauma Injuries – tool-box topic
 - Complacency in the workplace – tool-box topic
 - Mobile scaffolding safety – tool-box topic
 - Heat related safety awareness

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:

- W&C intern Ryan Holman accepted offer for full-time employment started employment in late June. He was hired as an O&M Tech 1, has a MA Grade 3M operator's license and fills the vacant position. He is receiving various on-the-job training for additional O&M tasks.
- Monthly staff Safety training – completed – Pure Safety and monthly safety meeting. W&C “near-miss” incidents at all projects for June discussed
- Staff completed Cyber-Security Training [on-line] Bi-annual training required.
- 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.
- Town required “Conflict-of-Interest” training completed by all staff in June, as a group, with the necessary documentation sent to the town clerk.
- RCM – Reliability Centered Maintenance training introduction [3-day] held on 6/3-6/5 for upcoming RCM analysis at the facility and systems. Several of staff participated.

Staffing related items:

- Cody Piepenbrink remained on the “on-call” list for plant coverage and emergencies for the near term but will be removed in July.
- Continued involvement with Mass Maritime [MM] internship program/career fair for future interns. Corporate human resources department leading the effort for future intern for summer months.
- Andrew Zamanian, a junior at MM started his summer internship in late June. He received various on-boarding training and safety training.
- 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. Jim G and Jody S providing coverage when staff levels are lower due to sickness, vacation, or training. Discussed plan to include Richard Gould from the Linden Ponds project for various fill-in coverage as needed.

9 COLLECTION SYSTEM

9.1 WET WELL CLEANING

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

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

Frequency of cleaning	Pump Station							
	A	1	3	4	5	6	9	D
May, 2019				X	X			
June, 2019								
July, 2019								
Aug., 2019								
Sept. 2019								
Oct., 2019								
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 June.

- 14 Crest Road
- 44 Chatham [grinder]
- 485 Nantasket Ave
- Ocean Ave Ultrasonic flow meter trial
- Hampton Circle surcharged manhole

Manholes:

- Staff responded to various rattling manhole covers, broken manhole covers/rims and sunken manholes covers/rims.

- Flagged & replaced a number of manhole covers where requested/notified. Assisted with inspection and identification of a number of manholes, where frame and cover replacements needed.

Dig Safe mark outs:

- Numerous Dig-Safe mark outs were completed throughout the Town of Hull in order to assist/facilitate the Town's paving project 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 June has been included as an attachment with the Monthly Operating Report.

10 PROJECT MANAGEMENT & ADMINISTRATION



10.1 ON-GOING PROJECTS AND SUPPORT ITEMS

- Asset management checkbook for tracking of expenses. Review of account status between W&C and Hull Sewer Dept. for 04M is near the close. The remaining expenses have posted and final totals presented. The report information is available to the Sewer Department and located in the shared file location. The current snapshot of the account status as of 7/31/19 is included as an attached pdf file with this report. The 05M checkbook spreadsheet with proposed maintenance task plan for the year has been set up and presented in the May MOR. The summaries 04M and 05M summaries are included with this report.
- During the Month of June in addition to the RCM training session there were two criticality analysis sessions held at the plant with Tacoma Zach from the company Uberlytics. Each session included three full days of risk analysis and failure modes for various “systems” within the plant process. W&C provided staff to support the project goals at each session day. More criticality as well as RCM sessions will continue through the summer and fall months for completion of this SRF funded project.
- Utility Cloud was fully operational during the month of June with additional work being tracked through the GIS / asset management / cloud-based program. Work is intended to grow each month as the staff works with Bill and Andy Crawford on specific workflow usage in Hull. A copy of the UC printout for June is attached.
- Grinder pump station pump panel stickers were ordered and received. The updated stickers will be put out at all town-owner grinder pumps this summer. This sticker replacement project has been set up to be tracked through Utility Cloud.
- Continued to research various options and quotes for D Street Stormwater station to remove the existing vertical turbine pump, keep the existing roof in place and existing electrical service, increasing pump capacity with different style pumps. The project approach, and drafted budget are getting closer for final review. The electrical voltage supply at the station will be monitored for a three to four day period to verify conditions. With the sub-contractor approval to proceed in place, the old pump removal will occur in early July.

- Continued to assist and provide information to T&B engineering for the HVAC system upgrade, discussed floor plan options, electrical chases, and duct work for the HVAC system. Assisted T&B Engineer's site visit to evaluate the operations building for hazardous materials.
- Continued to assist with the W&C engineers on task order projects as questions arose.
- Working on Annual Operating Report for contract years 3 and 4.