



HULL WATER POLLUTION CONTROL FACILITY

September
2018



MONTHLY OPERATING REPORT



woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

NPDES NO. MA0101231

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Cover pictures: Hull Cemetery in background
 Aeration tank

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 September 2018.

- No lost-time incidents for the month of September.
- There were 137 effluent samples taken in the month of September. Please see page (9) for details.
- There was one incident that required the filing of an SSO - sanitary system overflow notification report. On 9//18 heavy rainfall [2.93"] caused excessive flooding that resulted in a surcharged manhole on Nantasket Avenue. The duration was about one hour at 10 gpm. Reported total of less than 600 gallons.
- The Bioxide system operated throughout the month of September at PS 3. The feed rate was maintained at the August rate of approximately 200 gpd.
- Asset Management Accounts checkbook for tracking of expenses is ongoing weekly for year #4 [04M]. Review of account status between W&C and Hull Sewer Dept. is on-going.
- The electrical tie-in from the HSD trailer was changed back to the plant systems on 9/12/18. Continued monitoring of the plant's electrical voltage continues. The infra-red thermography scan of all plant equipment electrical panels was conducted on 8/28-8/29. Nothing significant was found relating to these power fluctuations.
- There were a few grinder pump call outs during the month of September that staff responded to and addressed.
- The Underground Storage Tank Removal Project/Above Ground Fuel Storage Tank continues. Working with Comm Tank for UST tank removal planning effort, reviewing wave analysis, and structural design. Siting for future above ground tank being reviewed. Test borings done in general location for siting of new tank.
- Main [lead] generator heat exchanger replacement update – delivery of the new heat exchangers delayed, with October completion date targeted.
- Worked on Pump Station 1 request for quotation package for the pump installation. Materials being obtained by W&C for the HSD and supplied to the contractor.
- W&C developed scope of work for the pump station ladders, since the integrity of the current ladders is becoming diminished.

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

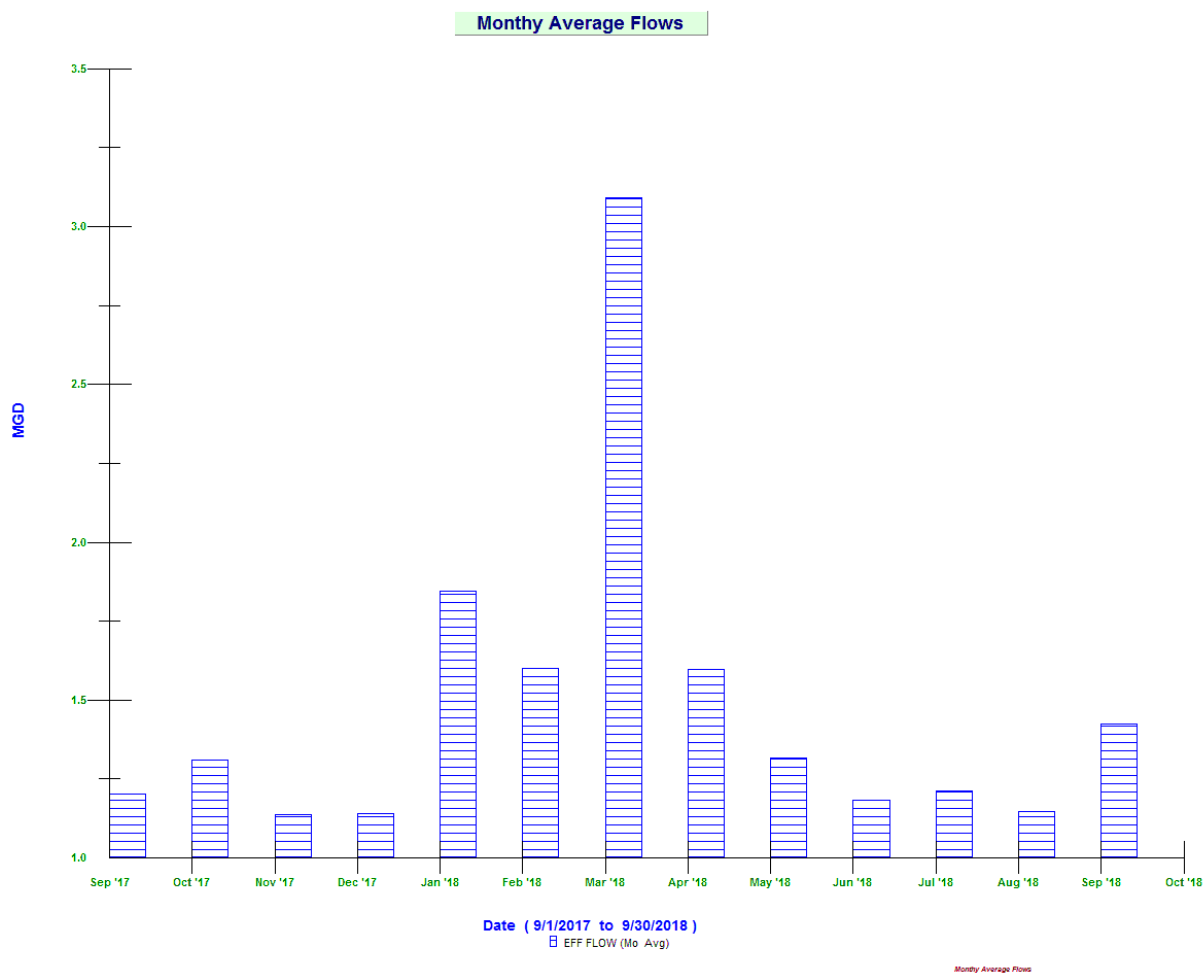


Average Daily Flows and Loadings for the Month:

	Eff Flow MGD	Inf Flow MGD	Inf BOD LBS	Inf TSS LBS	Eff BOD LBS	EFF TSS LBS
Sept 2016	1.184	1.242 *	2749	4386	90	281
Sept 2017	1.201	1.308 *	1569	4598	90	217
Sept 2018	1.423	1.735 *	1315	2325	100	238

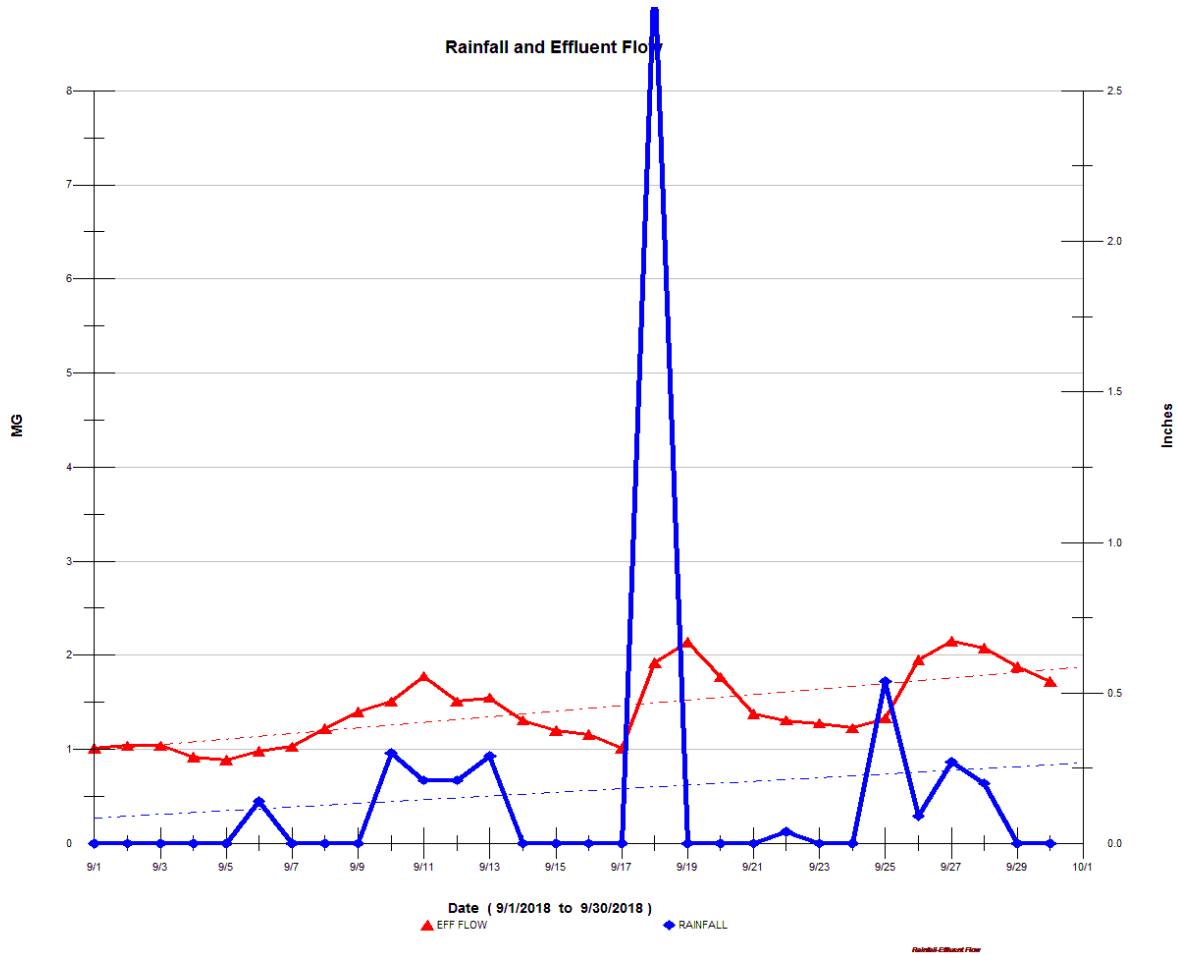
* Meter drift is getting closer and the numbers more accurate as the staff adjust accordingly.

2.1 AVERAGE EFFLUENT MONTHLY FLOWS – ONE YEAR COMPARISON



Monthly average flows trended lower for June, July, and Aug 2018, but September flows were up due to increased rainfall amounts.

2.2 MONTHLY SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



This graph provides a good indication of the influence that rainfall has on the effluent flows. Inflow and infiltration out in the collection system is noted with the increased effluent flow values when it rains. For the September 18th rain event, 2.93" of rainfall recorded. Influent flow into the plant was throttled by using the influent isolation gate, therefore, the plant peak was not as high for that day.

3 COMPLIANCE



➤ Plant Effluent

- There were no exceedances for the month of September.
- Plant process conditions continue to be good & maintaining very well. Continued with control of filamentous bacteria [growth that creates a dark brown slimy foam and carryover to the secondary clarifier surfaces] by chlorinating the RAS [return activated sludge]. Clarifier surfaces were very clean/clear.
- With the heavy rainfall, came higher flows on September 18-19. Additional staffing at plant was necessary, and to inspect/monitor various pump stations due to high wet well levels [PA 1,3 4, & A]. The influent gate was utilized to throttle the influent flow until the heaviest part of the storm had passed. This action minimized putting on additional tankage that may have been needed in the past.
- A Copy of the NPDES report for September 2018 was submitted to the DEP and then forwarded to the Hull Sewer Dept. Quarterly WET [whole effluent toxicity] report submitted.
- Continued working with corporate team for planning and rollout of company /process control plan/ template. Review of process flow diagrams, detention time calculations, previous performance evaluation reports. Work on development of unit process control reports and data base development. Chibby Alloway of W&C leading the plan's development.
- Drylet Trial in in process and at the approximate half-way point. To date the facility's biological system has adapted well to the supplemental bacteria being added daily. Improved sludge settleability and clarity have been seen, while slowly increasing the overall system sludge inventory. The trial is expected to run for 90 days at a minimum, with certain solids inventory targets to be attained, as long as the effluent compliance remains good.

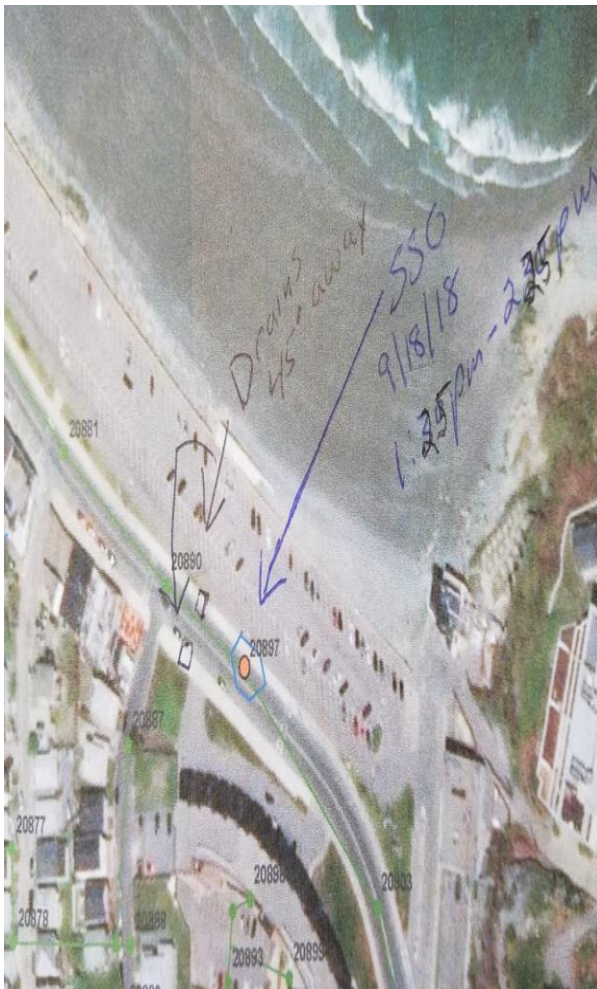


Secondary Clarifier effluent

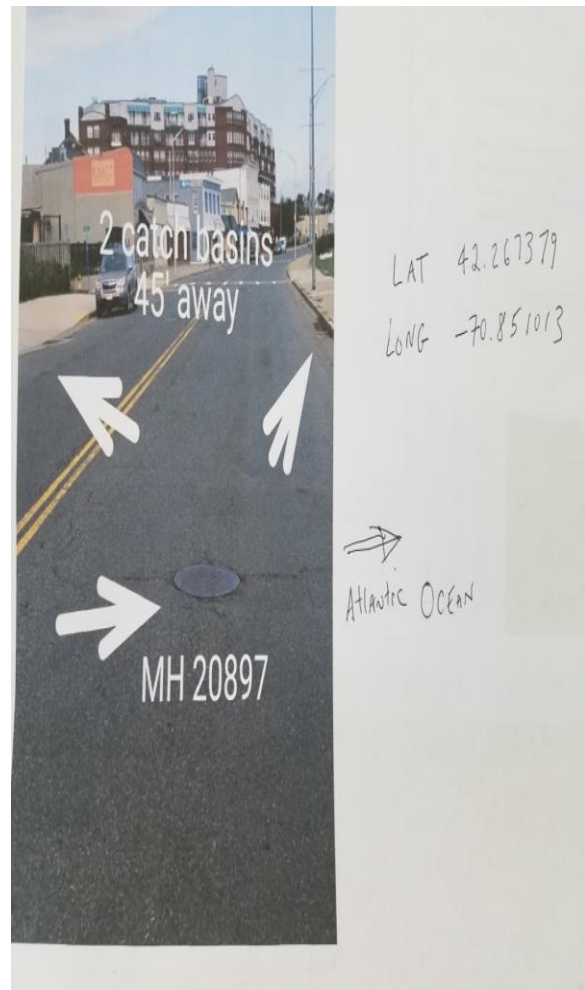


Aeration Tank – diffused air system

There was one sanitary system overflow [SSO] incident to report on 9/18/18 and the SSO report was submitted on 9/21/18. Heavy rainfall in a very short period of time dropped 2.93 inches that was recorded. The area was inspected upon learning of the issue. Excessive street flooding seen, and the road was shut down, since it was impassible with floodwaters. The surcharged manhole in front of Ocean Place Condominiums leaked with sewage coming up through the “pick holes” in the cover. The backed-up conditions were due to infiltration and inflow from street flooding and ponding in the Nantasket Ave area between Park Ave and Rockland House Rd.



Aerial view of 121 Nantasket Ave



Manhole # 20897

4 KEY PERFORMANCE INDICATORS



4.1 WATER QUALITY - SEPTEMBER

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	18.5	11.0	26.0	4	0
Eff TSS	LBS			1152	768	1 X Week	238	122	386		0
% TSS Rem	%		85			1 X Month	89.8				
Eff BOD	MG/L	50		45	30	1 X Week	7.7	3.0	20.0	5	0
Eff BOD	LBS			1152	768	1 X Week	100	44	320		0
% BOD Rem	%		85			1 X Month	93.6				
Eff Chlorine	MG/L	1			0.7	3 X Day	0.08	0.02	0.28	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	7.2	6.9	7.4	30	0
Enterococci	#/100 ML	276			35	1 X Week	10	10	10	4	0

- There were 137 effluent samples taken in the month of September with zero [0] NPDES Permit exceedances.
- Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
September 2016	35.52	53500
September 2017	36.03	54000
September 2018	42.70	54000

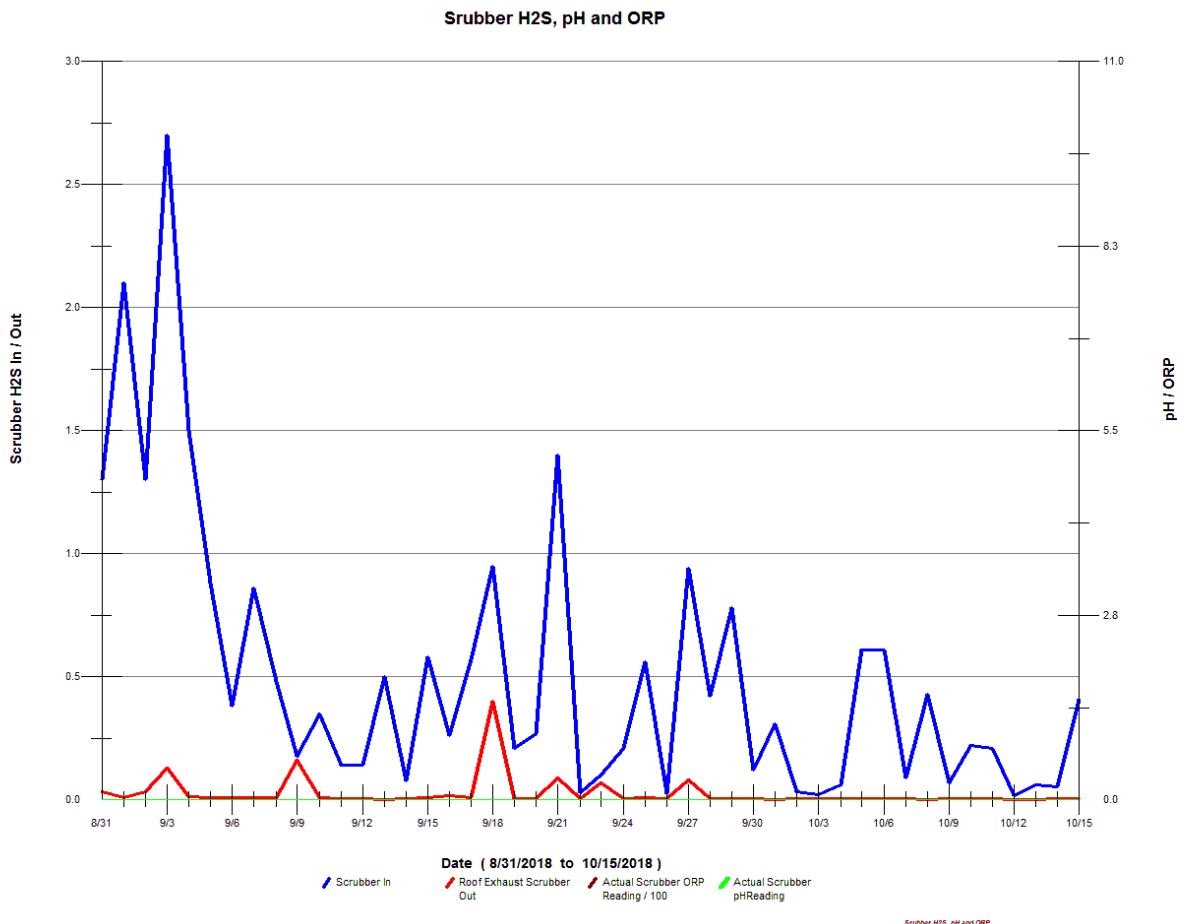
5 ODOR CONTROL

There were no odor complaints reported in September.

Additional air and mixing to the sludge holding tank continued. No changes made to Bioxide feed at PS 3. The higher feed rate was maintained. The only ferric chloride feed was done on Labor Day weekend. However, sampling data from Evoqua indicated elevated H₂S levels at the discharge point for the PS 3 force main. As was the case last year, the elevated levels were from the PS 4 discharge to this same manhole. The sewage pumped from PS 4 is not treated for H₂S.

The gravity thickener and primary clarifier remained off line. All influent sewage flow directed to the aeration tanks. The waste activated sludge currently is being pumped to the underground sludge holding tank #2, via the blend box. Aeration tank troughs are being flushed, to minimize build-up of odors.

The odor scrubber system was on line for the entire month. As noted last month, the scrubber media will be replaced in the near future. The system pH and ORP probes were checked. Scrubber operation is good.

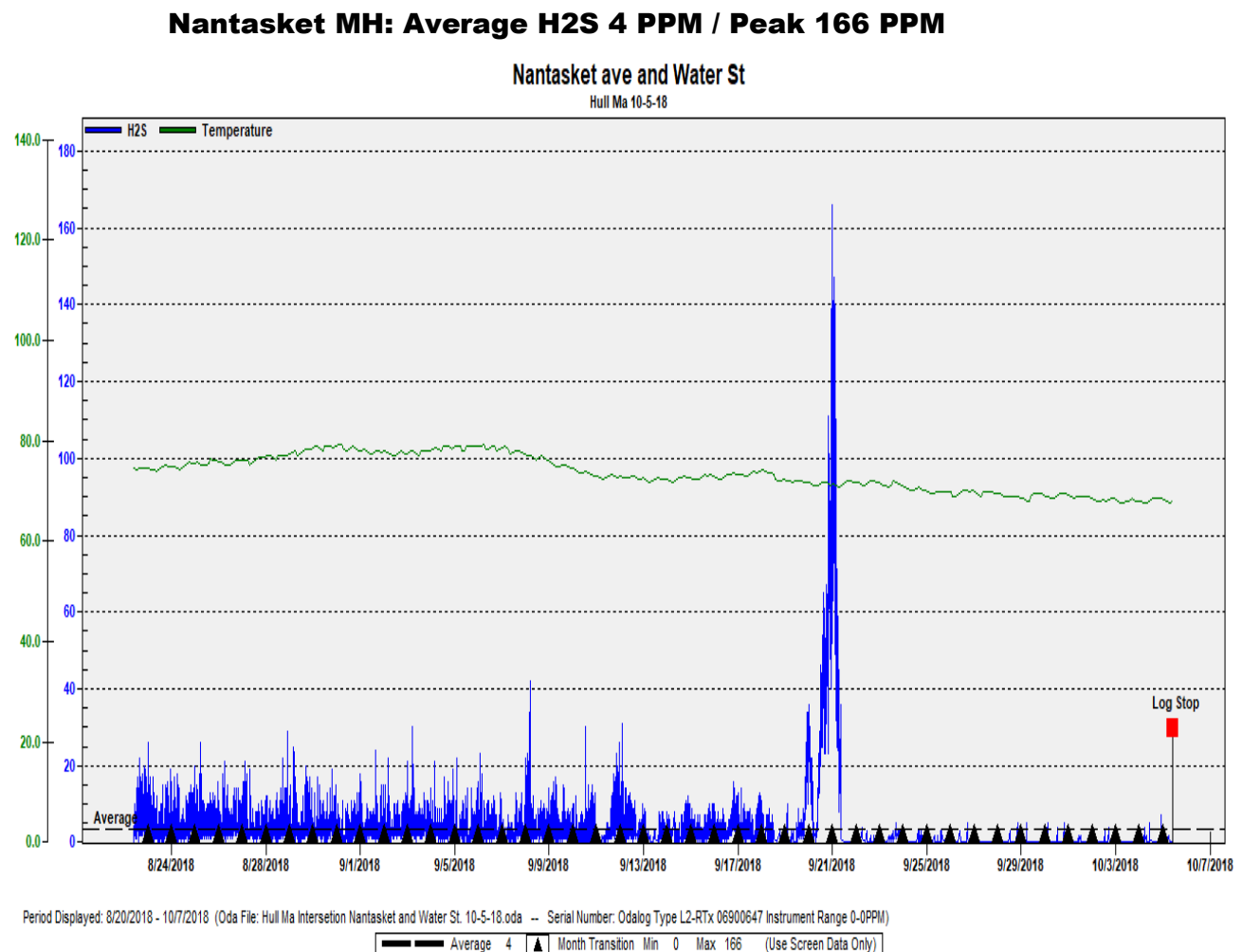


Graph shows lower H₂S levels in September, which correlate to higher flows in collection system, lower loading and gradual lowering of the ambient air temperatures

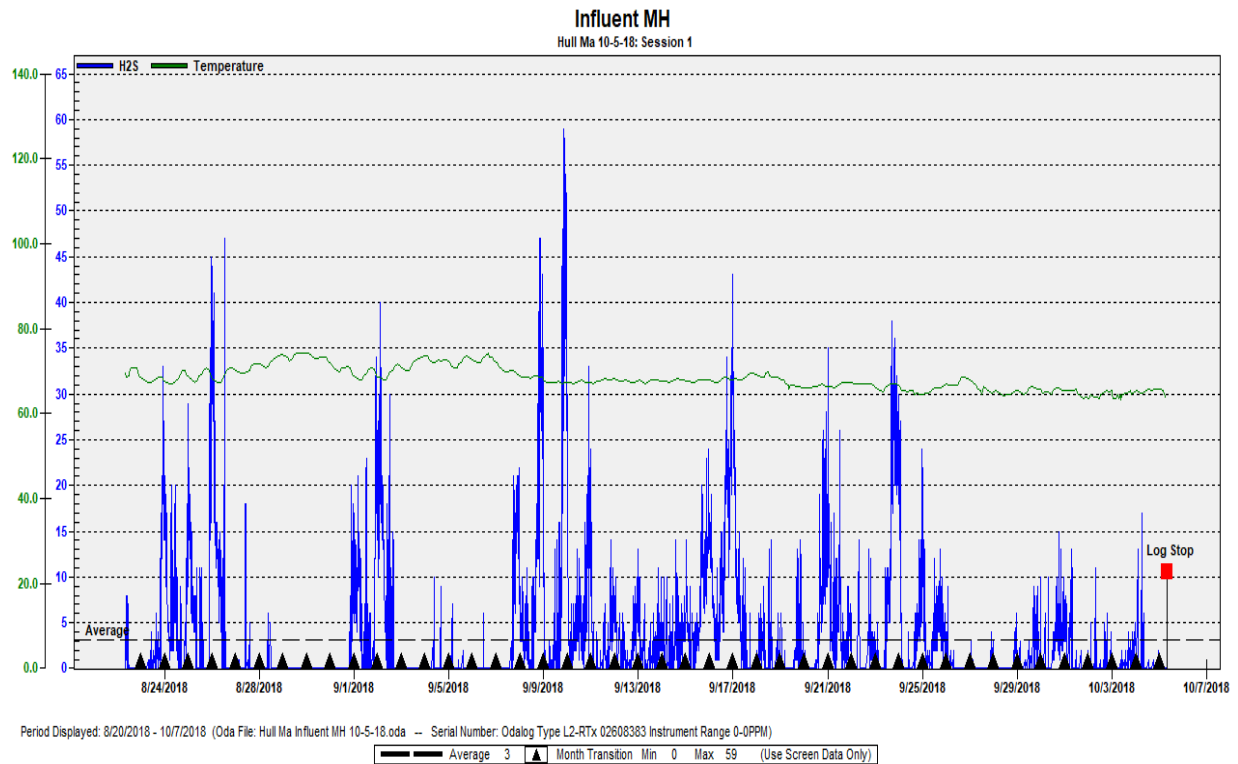
- “In-Pipe” bacteria addition continued with all 24 dosing stations operational. No additional actions taken for headworks sulfide reduction plan proposed by “In-Pipe. The inspection/replacement with full bottles took place on 9/4-9/5/18.
-

- 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.
- Added ferric chloride at PS 6 for several days over the Labor Day weekend, since afternoon H2S levels were high.
- On-going – frequent pumping of the secondary scum wells. Tank cleaning performed as needed.
- Evoqua [Bioxide] product was being pumped into the system daily. The current feed rate of almost 200 GPD was maintained during the month. The sulfides were being controlled at the Nantasket Intersection. PS #4 sulfide is most likely what is seen on the graph. Nitrate residual is reaching “A - Street” which is similar to what was seen last year. Manhole H2S data-loggers are set up at various manholes.

Below are the results of the recent sampling rounds and Odialog data [late August through September]:



Hull WWTP Influent MH: Average 3 PPM / Peak 59 PPM



Onsite Sampling of Nantasket Waste Line and Bioxide Feed Rates by Evoqua

- Verified feed rates for Bioxide. No changes of feed rates since last report.
- 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.
- Still under consideration - Vetting of ideas/discuss options for headworks area to reduce corrosion and odors. These items part of the discussion with Tighe and Bond's HVAC evaluation/upgrade.
 - Rubber mats to cover all channels
 - Tarp with a constructed frame to cover the aerated grit chamber
 - New "ducting/pipes" to connect channels to scrubber ductwork – to pull air from the room into the channel and then into the scrubber – i.e., to not let odorous air into the room ... capture it in the channel and send directly into the scrubber – channel will be under a slightly negative air pressure
 - Possibly add hydroxyl radical ozone unit to air in above ground sludge tank ...
 - Seal all pipe penetrations entering/leaking the headworks
 - Remove all unused pipes
 - Possibly control/reduce air flow to the aerated grit chamber

6 MAINTENANCE SUMMARY

6.1 TASKS COMPLETED THIS MONTH

Monthly work order summary for September compiled and a report summary can be found on page 25.

- 1) Repairs to plant water piping in secondary building. Corroded copper piping.
- 2) Gravity thickener #1 – motor seized & poor drive chain condition. Free up motor and replace/adjust drive chain.
- 3) Bump over primary pumps and primary scum pump, since all of this equipment has been off line for several months.
- 4) On-going de-ragging of pumps at PS 6. Multiple visits to station in September. Unclog sump pump in lower level. Test floats for both sump pumps – OK; found second sump pump is no good. Planning to replace sump pump.
- 5) Replace drive chain on RST drum drive.
- 6) Preparation of volute – Influent pump #1 – rebuild up casing wear ring with ceramic filler, due to component wear.



Built-up casing wear ring for influent pump #1 with ceramic coating

- 7) Electrician replaced burnt wire in MCC bucket for RAS pump #1, which was found during the IR scan/inspection.



MCC bucket with motor starter with burnt wire

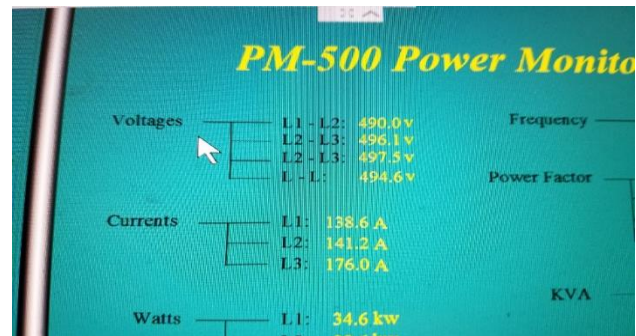
- 8) Replaced failed chem feed pump adding hypochlorite to plant water system
- 9) Rethread bolt holes for column doors in center column for SC2. Found to have excessive leakage. Re-direct scraper blades [plows] so all in same direction, due to lack of draft tubes for RAS flow.



SC2 - Center door plate – one on each side of center column

- 10) Replace peristaltic tube for caustic feed pump to scrubber for pH adjustment.
- 11) Re-install influent pump #1 components – rebuilt rotating assembly and rewound/repared motor. Test run and return pump to service.
- 12) Flush back #2 pump at PS 9 – partially clogged with rags.
- 13) Annual and semi-annual maintenance & inspection to the Duperon flex-rake unit in influent channel.
- 14) Inspect RST feed sludge pump #2 – needs new relay for remote use to RST. Electrician repaired.

- 15) Electrician and SCADA group worked to complete wiring and tie-in of the "Surge-Logic" surge protector unit to send alarms to Scada. Scada technician installed additional power monitor and electrical tracking to scada.



Surge unit "green" means each phase is ok

Power monitor voltages on SCADA

- 16) Electrician working on various light fixtures – sec bldg., operations building. Fixture pin connectors and ballasts in poor condition or have failed.
- 17) On 9/12/18 all PLC panels returned to plant 120-volt power, and connections to trailer outlets disconnected. A summary report for the HSD was prepared to update the insurance carrier.
- 18) Work commenced on installation of rubber mats in headworks area, to trap odors and keep odors in the channels. Air flow readings checked again through the ductwork in the headworks prior to start of this project and will be checked when work is completed. This is a trial to determine effectiveness and would yield information prior to longer term ventilation for the area.
- 19) Completed wiring and installation of effluent backup control panel upgrade to 24-volt battery backup system is completed and was tested on 9/5/18.
- 20) Weekly No loads and Monthly load tests completed on all generators including the portable generator and pump stations
- 21) On-going wheel replacement on the RST – Rotary Sludge Thickener.
- 22) Continued outside yard maintenance being done that includes the Hull Life Saving Museum.
- 23) Multiple visits to D Street stormwater station to start up back-up trash pump due to high well levels, as a result of rainfall at high tide periods.
- 24) Steve Rose – 9/28 SCADA Hull - Rewire D Street to run from SCADA. and create a high level and float alarm. Setpoints developed and station can be operated remotely if necessary. SCAD group also modified energy report.. Rescale plant water pump VFD feedback.
- 25) Install new fiberglass grating in outlet channel of SC2, to replace corroded pieces. New pieces have larger grid design that lessens any restriction for the effluent flow.
- 26) Plant had very quick brownout on 9/22. A few equipment pieces were affected. Comcast modem for the internet failed 2 days later and had to be replaced. For some reason, the wireless scada tie-in from a remote computer

was not possible, therefore no remote monitoring of the plant was could be done for the evening on 9/23. A staff person was called in to that night to check the facility and pump stations from the SCADA system.

- 27) On-going Dig-Safe mark outs completed, due to emergencies, upcoming paving projects, and responded various rattling manhole covers, broken manhole covers/rims, sunken manholes covers/rims. All work that W&C completed is documented in the monthly Work Order Report.
- 28) On 9/27 – called out to 5 Seaview Rd. Water coming up from the ground, confirmed to be groundwater and not sewage, or town drinking water. W&C and Aquarion checked out.
- 29) There were six grinder pump call outs during the month of September:
 - a. 37 Elm Ave. – Noisy pump & groundwater intrusion into pump chamber
 - b. 19 Richards Rd. - replaced pump
 - c. 56 Salisbury– replaced pump
 - d. 97 N. Truro – replaced pump
 - e. 7 Dellawanda – restore power to pump panel [contractor had shut off]

6.2 ON GOING PROJECT UPDATES



- Drylet bacterial process enhancement trial continued in September. [See effluent/compliance section]. Holding a weekly process call/meeting to discuss plant performance. Continued monitoring of the biological system and additional sampling performed during September as requested. Most significant process change was to raise target MLSS to 2500 mg/L.
- Pump Station 4, Pump Station 9, and Plant Headworks are now being evaluated together for a structural repair design and bid to be done. As noted before, the mechanical work is being held up at pump station 4 due to structural safety concerns. As the bidding is not possible to do through O&M team, a larger structural project concrete repair work scope is in now in discussion / planning stages.
- As a result of the two major electrical events [5/16 & 5/19] that occurred in May, the conditions that caused those significant events appear to no longer exist. There were no new incidents with the fluctuating 120-volt power load that feeds all of the programmable logic controllers [PLC's], and SCADA computers through plant back-up power supply units [UPS]. Nearly all of the UPS's were replaced with new units. The two remaining UPS's are on order.
- There has been on-going plant assistance & discussions with W&C SCADA Group & electrical engineering, Boston Water & Sewer [Mark Cleary], Pioneer Electric, and EESCO. The previous power monitors were removed, however, the 120-volt power loop was still being fed from the HSD trailer after the second event on May. W&C electrical group suggested and installed another power meter to monitor harmonics as well as voltage. Seth Harvey from the W&C Bangor office installed a power monitor & recorder on 9/19/18. There was a conference call prior. All extension cords from the trailer are now disconnected and the UPS's are getting power from the building power.
- Plant water basket strainer – We are still investigating a replacement unit - same, or different Mfr. Manually cleaned or auto-clean. Looking at where effluent water is drawn into the system, evaluating the size of the suction piping, considering other suction location for system to improve water quality – utilizing water from effluent wet well versus drawing from bottom of a manhole just after the secondary clarifiers. Hypochlorite addition continues to plant water system started in mid-July to improve water quality of plant water.

- The sluice gate supports for the inlet gates to primary clarifiers at the D-box. As noted previously, the supports have lifted away from the concrete and there is also cracked concrete under the supports. Quotes for the repair are on hold, and the work may be done, when the influent headworks structural repairs are performed.
- Looking at alternative use for existing primary clarifiers, especially the #1 PC, since the drive unit does not work. Conversion to a mixed tank and floating aerator are being considered. This would allow for hydraulic flow into the tank, 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.
- Plant lead 750 KW generator – Delivery of new heat exchanger units for cooling delayed and not completed in September. Also, the 520 KW needs new thermostats [4]; on order and will be replaced.
- Pump Station #1 – Prepared scope of work for contractor bidding to install the 2 new pumps and check valves. Request for quotes went out in late September.
- Turnkey RAS pump rotating assembly ordered to replace one of the older pumps.
- On-going – deragging of pumps at PS 6. “De-Ragger” unit with reverse starting contactor will be tried out on one of the pumps at PS 6. Working with vendor and electrician to coordinated October installation.
- Yard hydrant survey in progress and evaluating which hydrants to be replaced as needed. Four new yard hydrants received and will be held in stock, until arrangements for contractor support set up to replace.



Typical yard hydrant in need of repair

- Tecta New England roofing contractor inspected the WWTF building roof for possible points of repairs to the membrane roof (additional information to follow)
- Measurements of ladders at all pump stations taken for a pump station ladder replacement project for safety reasons – weight limits, bring ladders up to current standards, and improve anchoring to existing structures. Request for quotation to install new ladders sent out in late September.
- Participated with Tighe and Bond in conference call and assisted their engineer to gather information for the Ops building HVAC upgrade.

- Failed A-C units in 2nd floor office and break room were replaced.
- AST/UST: Jason Anderson visited a number of times [W&C] to finalize UST plan for removal, and to determine site location for new AST and the chain-wall platform for the new tank. New tank will be in close proximity to the building. W&C also working on integration of controls and alarms to SCADA and the day-tank function, where the new AST will be higher than the day-tank.
- Co-ordination calls & project management for the Horizon Gap2 Energy grant. Horizon solutions working on obtaining the materials and services for:
 - Odor control fan VFD
 - Engine block heater – heat pump unit
 - Aeration system piping modifications
- 9/26 – Kick-off Mtg for New Transformers and Electrical Service & Coastal Resilience Grant Program Application.
- HFMP – Working on developing checklist to provide plant status updates during times of severe weather conditions and in response to “Situational Awareness” alerts.
- Peter Lyons working on sewer line CCTV and manhole inspections in the areas that scheduled for paving in 2019. Gunrock & interceptor areas walked. Working on “On-call vector truck and CCTV inspection” scope for vendors to review.

7 SAFETY



It is Woodard & Curran's policy to maintain a safe and healthy work environment for every employee and to comply with applicable occupational health and safety regulations.

- No lost-time incidents for the month of September.
- Daily safety briefing meetings, review site safety policies with sub-contractors, safety tailgate topics.
- Pure Safety – September – Guarding walls and floor openings and holes
- Working with Andy Rowe on pump station ladder standards & specifications for replacement
- Discuss site specific hazards assessment and PPE
- Gas Meters – portable sensor replacements – installed and recalibrated units.
- Waiting to meet with the Hull Fire Department for confined space rescue questions & concerns, as they relate to pump station corrective maintenance repairs. Also, in discussion for future joint training exercises.
- Safety Stan Down discussion held on 9/20/18 – proper use of tools, and proper PPE to protect hands [gloves].
- Monthly staff safety meeting conducted on 9/29/18
 - Job Aid/tailgate discussions – Pedestrian safety
 - Importance for communication – ways we communicate – verbal & written
 - August 2018 Lessons Learned, and safety observations discussed – Near misses and incidents from other company projects.
- Roof hatch safety net ordered for one of the large hatches, to comply with fall protection requirements, if working on the roof, while hatch is open.

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.
- Operational updates and process control discussions, especially with recent electrical issues and plant shut-downs, pump station operations, odor issues, dig-safes, etc.
- W&C “near-miss” incidents at all projects for August discussed.
- On-going training for various staff – cyber security
- Mandatory Preventing Harassment Training
- Bill B attended a NEWEA Specialty conference on “Collection Systems” on 9/10/18
- Dave W attended a “pumps, mechanical seals, and bearings” seminar presented by Seacoast on 9/18/18
- Review On-call telephone emergency call tree and call forwarding of after-hours messages with RM Systems

Staffing related items:

- Continue involvement with Mass Maritime [MM] internship program/career fair for future interns. Contacting students for early 2019 co-op period [6 weeks – late January through March] W&C to attend Fall Career Fair at MM in October. Had one student interview at the plant.
- Sunday rotation schedule in place for next several months through early September 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.

9 COLLECTION SYSTEM

9.1 WET WELL CLEANING

The actual schedule for wet well cleaning: May 2018 to April 2019:

(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, 2018		X			*1	*1		
June, 2018					X	X		
July, 2018					*2			
Aug., 2018					X			
Sept. 2018				#3	#3		#3	
Oct., 2018								
Nov, 2018								
Dec., 2018								
Jan., 2019								
Feb., 2019								
March 2019								
April 2019								

All pump stations except for Pump Station 3 and Station D have an aerator/mixer in the wet wells

- *1 Inspected and needs to be cleaned in June**
- *2 Inspected and needs to be cleaned in August**
- *3 Inspected and needs to be cleaned in October**

9.2 COLLECTION SYSTEM MAINTENANCE

Woodard & Curran assisted/conducted camera work in the Hull collection system at the following areas during the month of September.

Main Street/Ocean Ave
4 Farina Rd.
121 Nantasket Ave

Summit Ave.
185 Nantasket Ave
1118 Nantasket Ave

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. is on-going. [04M]
- On-going UST/AST work:
 - a) Location planning with staff and engineering support included investigation of Scrubber air lines and blower piping,
 - b) Additional coordination with Flood and Wave analysis Woodshole team,
 - c) Geotech borings completed in August by North East Geo-Technical – review data
 - d) Structural W&C team evaluating earth pressures on adjacent building walls for loading conditions, chain wall/platform.
- Still to be done: had co-ordination meeting with WINDRIVER in August, and still to set up meetings with National Water Main, and other collection system vendors - to review our Contract Collection System Quota work, upcoming projects. In August a meeting with WINDRIVER did occur and additional planning with other contractors to further evaluate which company can best serve Hull's needs in the future.
- Utility Cloud planning and implementation progressing. New tablets [I Pads] in use. Andy Crawford, Bill Boornazian & Alan Fabiano are leading this effort.
- Utility Cloud now successfully being used for multiple different work order types in the collection system
- Bill Boornazian working with support team to implement all tie cards on file to be uploaded to the Utility Cloud data base and associated with each map / lot parcel
- Met with Monroe Phone RM Systems to discuss and correct some of the phone system issues and message receiving during non-business hours. Eventual goal is to have a more simplified notification system and eliminate to on-call pager and on-call phone. A 3-6-month trial period will be evaluated to see if resident non-emergency on-call notifications will be effectively handled and forwarded, before any other changes made to the current practices. In September the call forwarding was working well and the message retrieval was successful.

11 WORK ORDER SUMMARY



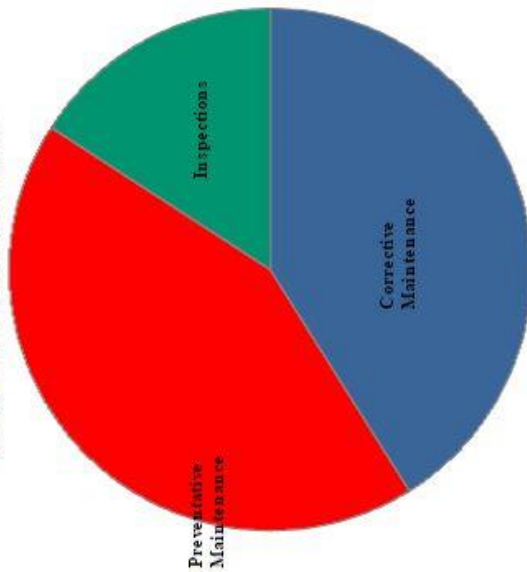
Maintenance History Report

Hull Wastewater

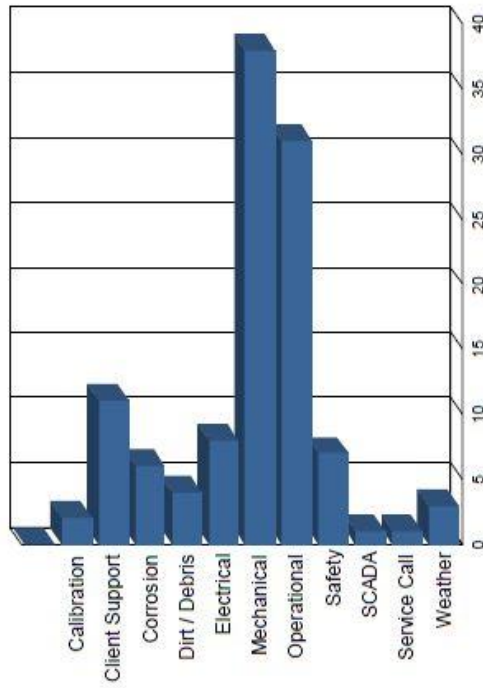
Start Date: 9/1/2018
End Date: 9/30/2018

Work Order History By Type

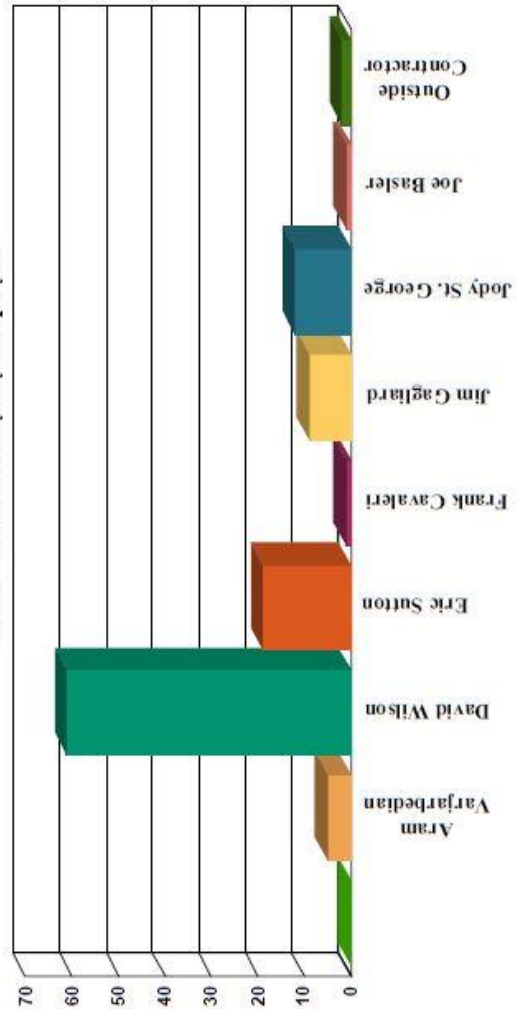
Corrective Maintenance	49
Inspections	19
Preventative Maintenance	51
Total Work Orders	119



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	5	10
David Wilson	61	185
Eric Sutton	19	14
Frank Cavaleri	1	0
Jim Gagliard	9	21
Jody St. George	12	14
Joe Basler	1	2
Outside Contractor	2	5
Unassigned	9	9
Totals	119	239