




Utility Department Monthly Update

MEETING DATE: January 12, 2021

TO: Honorable Mayor and City Councilmembers

FROM: Daniel Saus, Utility Director 

THROUGH: George Garrett, City Manager

SUBJECT: **December 2020 Utility Department Update**

A. Wastewater Treatment Plants

1. General Issues

- a. The king tides were again causing increased flows and salinities at some of the plants in November. We continue to fight this latent Irma damage battle but flows have come back to normal in December.

2. Odor Complaints / Mitigation

- a. We received no odor complaints for the wastewater treatment facilities in the last several months.

3. Effluent Quality Report/Plant Performance

The November 2020 wastewater facility performance chart is shown below because the January numbers are just being tabulated. The plant permits now require AWT compliance and the operations staff is doing an amazing job as reflected in our effluent quality as shown below. **(Effluent results are always a month behind due to sampling, shipping, & lab reporting)**

City of Marathon WWTP's Plant Performance Data for:

NOVEMBER 2020

Parameters:			CBOD mg/L		TSS mg/L		TN mg/L		TP mg/L	
WWTP	Permit (MGD)	MADF (MGD)	Monthly Average (6.25)	Annual Average (5.0)	Monthly Average (6.25)	Annual Average (5.0)	Monthly Average (3.75)	Annual Average (3.0)	Monthly Average (1.25)	Annual Average (1.0)
AREA 3	0.250	0.202	1.0	1.7	0.95	1.1	4.53	2.36	1.05	0.578
AREA 4	0.400	0.325	1.0	1.7	3.74	1.6	0.853	1.5	0.164	0.4
AREA 5	0.450	0.381	1.0	1.7	1.85	1.3	1.70	1.2	0.39	0.2
AREA 6	0.200	0.097	1.0	2.8	1.4	0.9	3.17	1.37	0.305	0.225
AREA 7	0.200	0.028	1.0	2.7	0.5	0.5	3.96	2.28	0.281	0.223

B. Collection System

1. The month of November was relatively quiet and flows were higher than normal for this time of year. In September/November extreme king tides were back and show a continued weakness in the collection system that greatly impacts the system. We continue to find and repair issues related to saltwater Inflow and Intrusion problems along the gravity laterals on the homeowner and business owner sides of the Collections System. We identified many of these issues troubleshooting the system late at night and investigating the high salinity readings the next day.
2. Vacuum Station Salinities for June:
 - a. August's vacuum station salinities were at as follows (in parts per thousand): SA3: 2.05; SA4: 3.13; SA5: 8.04; SA6: 1.19 and SA7: 1.63. This indicates a minimal amount of saltwater intrusion into our system from the king tides except for SA5 where we continue to find issues. We now know it is latent hurricane damage and we are actively pursuing air intake repairs on private property as stated above in in general issues,
3. Wastewater System Connections

- a. The City's wastewater system parcel connection rate is currently standing at approximately 100%. (Only customers that are in code or do not have a certificate of occupancy are not connected)

4. Code Compliance

- a. There are currently 15 open code cases in process for failure to connect to the City's central wastewater system, code violations, or expired permits. Most of them are residential properties at some point in the foreclosure process.

5. Call-Outs

- a. From November 1st to November 30th there were 44 documented Call outs for the entire Collections System. Of these, 29 were system generated typically a low vacuum detected at one of our Vacuum Stations. These 29 call outs did not result in any inconvenience to our customers in any way as the problems were detected and remedied by Collections/Maintenance City Staff before these problems could become a nuisance to the homeowners or residents at these locations. Tropical Storm ETA also played some havoc on our Collection system in November. Incident x. explains some of the problem we had with the system.

- b. The other call outs were as follows:

- i. 11-2-20: Backup Area 4. 403 Calle Limon. The MOD phone received a call about a backup at the property. The Techs were already in the area due to excessive rain causing water logging in the Vacuum Main. The Techs were purging the water from the Vacuum Main near that location. They eventually restored vacuum in the main. The Tech also replaced the Controller, Valve, and Surge Suppressor in the Vac Pit. The Vac Pit was put back into service. No damage to property.

- ii. 11-2-20: Backup Area 4. 1153 Camino del Vientos. The MOD phone received a call about a backup at the property. The Techs were already in the area due to excessive rain from Tropical Storm ETA causing water logging in the Vacuum Main. The Techs were purging the water from the Vacuum Main near that location. They eventually restored vacuum in the main. The Vac Pit was put back into service. No damage to property.

- iii. 11-2-20: Backup Area 4. Calle Ensueno. The MOD phone received a call about a backup at the property. The Techs were already in the area due to excessive rain from Tropical Storm ETA causing water logging in the Vacuum Main. The Techs were purging the water from the Vacuum Main near that location. They eventually restored vacuum in the main. The Vac Pit was put back into service. No damage to property.

- iv. 11-2-20: Backup Area 4. 1154 Camino Del Vientos. The MOD phone received a call about a backup at the property. The Techs were already in the

area due to excessive rain from Tropical Storm ETA causing water logging in the Vacuum Main. The Techs were purging the water from the Vacuum Main near that location. They eventually restored vacuum in the main. The Vac Pit was put back into service. No damage to property.

v. 11-6-20: Backup Area 7. 58446 Morton Rd. The MOD phone received a call about a backup at the property. The Tech responded. He found the Wet Well full of water and called in the Pump Truck to help pull the water down so as to be able to work on the station. He found the on/off switches were bad on the pumps in the station. He pulled the pumps and repaired the switches. He then proceeded to put the station back into service. No damage to property.

vi. 11-13-20: Backup Area 7. 57958 O/S Hwy. The MOD phone received a call about a backup at the property. The Tech responded. He found the Wet Well full of water and called in the Pump Truck to help pull the water down to be able to work on the station. He proceeded to troubleshoot the station and found the check valves were bad and tearing up the Pump Stators. He replaced the check valves and Stators then proceeded to put the station back into service. No damage to property

vii. 11-19-20: Backup Area 5. 10730 7th Ave. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and the cleanout. He found the Vac Pit was overwhelmed with water. The Tech manually fired the Vac Pit to empty the water and put the Vac Pit back into service. No damage to property.

viii. 11-22-20: Backup Area 4. 324 Sombrero Bch. Rd. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and found the Controller was bad. The Tech replaced the Controller with a new one then put the Vac Pit back into service. No damage to property.

ix. 11-24-20: Backup Area 7. 58386 O/S Hwy. The MOD phone received a call about a backup at the property. The Tech responded. He found the Wet Well full of water and called in the Pump Truck to help pull the water down to be able to work on the station. He proceeded to troubleshoot the station and found the check valves were bad and tearing up the Pump Stators. He replaced the check valves and stators then proceeded to put the station back into service. No damage to property.

x. 11-26-20: Backup Area 4: 341 Sombrero Bch. Blvd. The MOD phone received a call about a backup at the property. The Tech responded and remembered that the problem with this particular Vac Pit was that it was the primary reason that the Vacuum Main was waterlogged on 11-2-20 from Tropical Storm ETA and had been disabled. The property owner had a retaining wall torn out at that property as he had split the property into two lots to help facilitate the sale. When the contractor tore out the wall, he also damaged the Gravity Lateral that serviced that property allowing rainwater to pour into the Vac Pit waterlogging the Vacuum Main. The property owner was responsible for fixing the Gravity Lateral and had done so. But he did not let the City know that he had

fixed the Gravity Lateral. The Tech reinstated the Vac Pit into operation. No damage to property.

xi. 11-27-20: Backup Area 4: 3574 O/S Hwy Overseas Lounge. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and the cleanout. He found the Vac Pit was overwhelmed with water. The Tech manually fired the Vac Pit to empty the water and put the Vac Pit back into service. No damage to property.

xii. 11-28-20: Backup Area 7: 56 Pelican. The MOD phone received a call about a backup at the property. The Tech responded. He found the Wet Well full of water and called in the Pump Truck to help pull the water down to be able to work on the station. He proceeded to troubleshoot the station and found the check valves were bad and tearing up the pump stators. He replaced the check valves and stators then proceeded to put the station back in service. No damage to property

xiii. 8-28-20: Backup Area 7: 10733 120th st Gulf. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and found the Controller was missing a seal to the top of the valve not letting the Vac Pit fire. The Tech replaced the Controller seal then put the Vac Pit back into service. No damage to property.

xiv. 11-28-20: Backup Area 4: 425 Calle Limon. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and found the No Hub had been displaced from the valve. He replaced the No Hub with a Fernco Fitting and then put the Vac Pit back into service. No damage to property.

xv. 11-30-20: Backup Area 5: 11134 3rd Ave. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and found the unit to be in good working order. He let the Homeowner know to call a plumber. No damage to property.

6. Odor Complaints / Mitigation

b. We received no odor complaints in November for the collection system.

C. Plant Upgrades & Construction Projects

1. The Area 5 WWTP upgrades are completed. The new Kubota membranes are installed and working great. The project went off smoothly with minimal unexpected issues and excellent coordination between staff and contractors.
2. The design for the sludge facility at Area 6 is still on hold at this time.

3. The construction for the Area 3 to 4 force main is underway. A re-design was required once we determined the survey information was not accurate. The force main now crosses US1 and will now tie-in in front of Gulfside Village on oceanside.
4. The design for the Area 3 WWTP expansion is nearly completed and permitting through FDEP is underway at this time. An unexpected major RAI (request for additional information) was received by FDEP in late October. This will require geotechnical investigations and work from a licensed Geologist for a proper response. That work authorization is included in this agenda packet.

D. Grants Update Summary

1. LP44041 17 Million dollar Grant – This grant has been closed out.
2. Regarding the ACOE PCA: in August we received a reimbursement of \$1,245,000.00 from ACOE for FKWQIP for fiscal year 19/20.