




Utility Department Monthly Update

MEETING DATE: October 13, 2020

TO: Honorable Mayor and City Councilmembers

FROM: Daniel Saus, Utility Director 

THROUGH: Charles Lindsey, City Manager

SUBJECT: **October 2020 Utility Department Update**

A. Wastewater Treatment Plants

1. General Issues

- a. The king tides are again causing increased flows and salinities at some of the plants in September. We now know that a great many damaged air inlets that are likely latent hurricane Irma damage either from the storm or from the ensuing cleanup effort. We have performed a multitude of repairs and have sent many letters to the affected owners but are getting good compliance but still have a ways to go to get the problem under control.

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 August 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:**

AUGUST 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 | 0.159 | 1.0 | 2.0 | 0.5 | 1.7 | 3.72 | 2.12 | 0.68 | 0.466 |
| AREA 4 | 0.400 | 0.246 | 1.0 | 1.5 | 0.5 | 1.4 | 2.88 | 1.0 | 0.091 | 0.2 |
| AREA 5 | 0.450 | 0.325 | 1.0 | 1.2 | 1.9 | 1.4 | 0.54 | 1.0 | 0.44 | 0.2 |
| AREA 6 | 0.200 | 0.077 | 1.0 | 3.1 | 1.1 | 0.9 | 1.55 | 1.45 | 0.722 | 0.217 |
| AREA 7 | 0.200 | 0.025 | 1.75 | 3.5 | 0.5 | 0.6 | 1.37 | 1.78 | 0.684 | 0.204 |

B. Collection System

1. The month of August was relatively quiet although flows are higher than normal for this time of year. In September extreme king tides are 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. We are working with property owners and contractors to correct these problems and will continue to pursue more issues as the tides come back in higher at the end of the month and in October.

2. Vacuum Station Salinities for June:
 - a. August's vacuum station salinities were at as follows (in parts per thousand): SA3: 1.85; SA4: 2.15; SA5: 2.95; SA6: 1.08 and SA7: 1.10. This indicates a minimal amount of saltwater intrusion into our system from the king tides. 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 16 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 August 1st to August 31st there were 40 documented Call outs for the Collections System. Of these, 26 were system generated, typically low vacuum detected at one of our Vacuum Stations. These 26 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.

b. The other call outs were as follows:

- i. 8-2-20: Backup Area 6. 501 124th Street Gulf. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vacuum pit and the cleanout and found the City equipment in good working order. It was a homeowner issue.
- ii. 8-2-20: Backup Area 5 Remote. 7933 Shark Drive. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vacuum pit and the cleanout and found the no-hub had come off of the valve. The tech replaced the no-hub and put the vac pit back in service. No damage to property.
- iii. 8-3-20: Backup Area 6. 210 120th Street. The MOD phone received a call about a backup at the property. The tech responded and inspected the vacuum pit and the cleanout and 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 in service. No damage to property.
- iv. 8-4-20: Backup Area 7. 58366 O/S Hwy. The Resident called the afterhours MOD phone and 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.

v. 8-7-20: Backup Area 5. 790 100th Street. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vacuum pit and the cleanout and found the City equipment in good working order. It was a homeowner issue.

vi. 8-7-20: Backup Area 7. 349 Avocado Ave. The Resident called the afterhours MOD phone and 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.

vii. 8-11-20: Backup Area 3. 372 11th Street. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vacuum pit and the cleanout and found the City equipment in good working order. It was a homeowner issue.

viii. 8-18-20: Backup Area 5 Remote. 547 74th Street. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vacuum pit and the cleanout and found the City equipment in good working order. It was a homeowner issue.

ix. 8-18-20: Backup Area 5. 11401 O/S Hwy. The MOD phone received a call about a backup at the property. The tech responded and inspected the vacuum pit and the cleanout and found the vac pit was overwhelmed with water. The tech manually fired it to empty the water and put it back into service. No damage to property.

x. 8-25-20: Backup Area 4: 11401 1st Ave Ocean. The MOD phone received a call about a backup at the property. The tech responded and inspected the vacuum pit and the cleanout and 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 in service. After putting it back in operation he found the unit still not working properly. The tech installed all new equipment in the vac pit and watched it function properly and put the unit back in service. No damage to property.

xi. 8-26-20: Backup Area 5: 5150 O/S Hwy. Wendy's. 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 along with the surge suppresser being dirty. The tech replaced the controller with a new one and cleaned the surge suppresser. The tech put the vac pit back in service. No damage to property.

xii. 8-27-20: Backup Area 5 Remote: 303 66th Street. 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 and put the vac pit back in service. No damage to property.

xiii. 8-28-20: Backup Area 7: 271 Lime Ave. The resident called the afterhours MOD phone and 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 operation. No damage to property.

xiv. 8-31-20: Backup Area 5: 715 105th Street. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vacuum pit and the cleanout and found the City equipment in good working order. It was a homeowner issue.

6. Odor Complaints / Mitigation

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

C. Service Plant upgrades & Construction

1. The Area 5 WWTP upgrades are nearly 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 scheduled to begin October 15th.
4. The design for the Area 3 WWTP expansion is nearly completed and permitting through FDEP is underway at this time.

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.