




## Utility Department Monthly Update

**MEETING DATE:** October 11, 2022

**TO:** Honorable Mayor and City Councilmembers

**FROM:** Daniel Saus, Utility Director 

**THROUGH:** George Garrett, City Manager

**SUBJECT:** September 2022 Utility Department Update

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### A. Wastewater Treatment Plants

#### 1. General Issues

- a. Flows were extremely high, so the collections system had to deal with two different natural events this month. King tides and Hurricane Ian storm surge at the same time. Unfortunately, we had to shut down various sections of the collections system due to the high amounts of saltwater inflowing from storm surge, king tides, and rain. Issues due to age and normal wear and tear in the system allow salt water into the system. Although we had to take this extraordinary measure to help keep the wastewater treatment plants from overflowing their tanks, we only got one call for a backup throughout the two days of events. We were able to keep the residential areas up and running with an extreme amount of diligence on the collections technician's part. Congratulations to our team for an outstanding effort!
- b. The work continues for the Chemical Feed Upgrades project. Supply issues remain and will likely cause delays, but I am keeping my fingers crossed for an on-schedule completion.
- c. We received confirmation from FDEP that our Service Area 3 permit application is finally complete. The following schedule was provided from FDEP for the next steps:

Event	Scheduled Date
Application Completion Date	June 30, 2022
Notice of Intent to Issue Permits	August 5, 2022
Applicant to publish Notice of Intent	August 12, 2022
Notice of Final Permits	September 2, 2022

**Note: these dates are target dates for planning purposes; actual dates may vary.**

**Unfortunately, we have not yet received the “Notice of Intent” that was promised the second time to be completed by August 28th.**

2. Odor Complaints / Mitigation

- a. We received no odor complaints for the treatment plants in September.

3. Effluent Quality Report/Plant Performance

Hurricane Ian and the king tides ganged up on us this year to cause extremely high flows to all the plants. Due to the diligence and hard-earned experience of our team we were able to handle the flows with minimal impacts. We did have two issues:

1. We had a very minor spill at the Area 3 WWTP when for some unknown reason, the influent pump controls stopped working. We were notified at 8:55 Am on Sunday 9/25 that a tank was overflowing. We had an operator on site and the spill stopped by 9:00. We did report the incident to FDEP and the amount did not require us to report it to the State Watch Office. Once the surge and tides receded, we were able to get everything back into automatic operation.
2. At the Area 5 WWTP the surge tank filled beyond its normal level and flooded some conduits causing several short circuits and damaging several pieces of equipment. The plant is back operating normally but does require more monitoring and manual control until we get the equipment replaced.

The August 2022 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 2022

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	0.110	2.90	<2.0	<1.0	1.0	1.35	1.90	0.25	0.58
AREA 4	0.400	0.308	2.50	<2.0	1.70	<1.0	3.23	1.12	0.36	0.23
AREA 5	0.450	0.327	<2.0	<2.0	1.73	<1.0	1.87	1.0	0.47	0.20
AREA 6	0.200	0.090	<2.0	<2.0	<1.0	<1.0	1.52	1.31	0.23	0.38
AREA 7	0.200	0.048	3.17	<2.0	<1.0	<1.0	0.60	1.29	0.18	0.31

## B. Collection System

1. The month of September had extremely high flows due to king tides and hurricane Ian. The system was flooded by tide, rain, and surge on both sides of the island. As soon as it receded the guys purged the system and got it up and running again. Details below. The team is amazing and deserves all our thanks and appreciation!
2. Vacuum Station Salinities for September:
  - a. Vacuum station salinities at the plants were as follows (in parts per thousand): A3: 1.75 SA4: 5.49; SA5: 6.75; SA6: 1.18 and SA7: 2.76. These values show minimal infiltration.
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 still currently 5 open code cases in process for failure to connect to the City's central wastewater system, code violations, or expired permits. All of them are residential properties at some point in the foreclosure process.

## 5. Callouts

- a. From September 1st to September 30th there were 83 documented call outs for the entire collections system. Of these, 71 were system generated, typically low vacuum detected at one of our vacuum stations. These 71 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.

The Collections System had to deal with two different natural events this month. King tides and Hurricane Ian storm surge at the same time. Unfortunately, we had to shut down various sections of the collections system due to the high amounts of saltwater inflowing from voids due to age and normal wear and tear in the system. Although we had to take this extraordinary measure to help keep the wastewater treatment plants from overflowing their tanks, we only got one call for a backup throughout the two days of events. We were able to keep the residential areas up and running with an extreme amount of diligence on the collections technicians' part.

b. The other call outs were as follows:

- i. 9-3-22: Backup Area 4. 3918 Gulfview Ave. 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 controller and valve to be bad. The tech replaced both components and put the unit back into service. No damage to property.
- ii. 9-7-22: Backup Area 4. 840 Copa d'Oro. 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 to be overwhelmed. He fired the vac pit manually and cleared the water. The vac pit was placed back in operation. No damage to property.
- iii. 9-7-22: Backup Area 5. 7940 Aviation Blvd. 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, and they were notified.
- iv. 9-8-22: Backup Area 4. 708 42<sup>nd</sup> 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 to be overwhelmed. He fired the vac pit manually, cleared the water, and placed it back in operation. No damage to property.
- v. 9-12-22: Backup Area 5. 741 80<sup>th</sup> 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 controller and valve to be bad. The tech

replaced both components with new Controller and Valve then put unit back into service. No damage to property.

vi. 9-17-22: Backup Area 5. 10889 3<sup>rd</sup> Ave. 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 controller and valve to be bad. The Tech replaced both components and then put unit back into service. No damage to property.

vii. 9-17-22: Backup Area 3. 637 12<sup>th</sup> 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, and they were notified. No damage to property.

viii. 9-18-22: Backup Area 4. 559 49<sup>th</sup> 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, and they were notified. No damage to property.

ix. 9-25-22: Backup Area 4. 118 Calle Ensueno. 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, and they were notified. No damage to property.

x. 9-25-22: Backup Area 3. 1100 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 to be overwhelmed. He fired the vac pit manually, cleared the water, and placed it back in service. No damage to property.

xi. 9-30-22: Backup Area 3. 1401 Ocean Breeze. 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 controller and valve to be bad. The Tech replaced both components and then put the unit back into service. No damage to property.

xii. 9-30-22: Backup Area 4. 42 Treasure Rd. 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 controller and valve to be bad. The tech replaced both components and then put the unit back into service. No damage to property.

6. Odor Complaints / Mitigation

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

## C. Plant Upgrades & Construction Projects

1. Due to the permitting issues for the Area 3 WWTP Upgrade project taking almost 3 years and with COVID delays and inflation, the project costs for this project have increased significantly. I've requested finance to investigate if we can transfer the ACOE grant money from the Area 6 Sludge Processing Facility project to this project. The Area 6 project would then be put on the back burner until more funding is received. We still have not received our notice of intent from FDEP for the Area 3 permit.
2. A CDBG-DR Grant has been received for electrical upgrades, vacuum monitoring system, and flood wall at Area 6 plant. Design is at approx. 90%. We are required to perform a complete environmental assessment which has slowed our progress considerably.
3. The design for the Area 3 WWTP expansion is nearly completed and permitting through FDEP is underway at this time. Unfortunately, we still have not received the "Intent to Issue" from FDEP.
4. We received an RAI for both the Area 6 WWTP permit renewal and the one for Service Area 4 WWTP that were like the one for Area 3. We have now received confirmation from FDEP that our responses to the RAI's were complete and we are awaiting the final outcome from FDEP.

## D. Grants Update Summary

1. Due to the permitting issues for the Area 3 WWTP Upgrade project taking almost 3 years and with COVID delays and inflation, the project costs for this project have increased significantly. I've requested finance to investigate if we can transfer the ACOE grant money from the Area 6 Sludge Processing Facility project to this project. The Area 6 project would then be put on the back burner until more funding is received.