




Utility Department Monthly Update

MEETING DATE: January 9, 2024

TO: Honorable Mayor and City Councilmembers

FROM: Daniel Saus, Utility Director 

THROUGH: George Garrett, City Manager

SUBJECT: December 2023 Utility Department Update

A. Wastewater Treatment Plants

1. General Issues

- a. Good progress continues for the Chemical Feed Upgrades project. We had an unfortunate turn of events which requires our contractor to replace all the chemical piping already installed.
- b. High tides and rain were particularly disruptive in December causing lots of callouts.

2. Odor Complaints / Mitigation

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

3. Effluent Quality Report/Plant Performance

The October 2023 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:

October 2023

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	0.144	3.65	<2.0	1.00	1.5	0.25	1.09	0.12	0.65
AREA 4	0.400	0.383	2.55	<2.0	7.18	2.8	0.85	1.01	0.39	0.42
AREA 5	0.450	0.439	<2.0	<2.0	1.65	1.0	0.57	0.73	0.05	0.47
AREA 6	0.200	0.1.1	<2.0	<2.0	<1.0	<1.0	0.72	1.28	0.06	0.39
AREA 7	0.200	0.065	5.0	2.7	2.85	1.4	0.62	1.18	0.10	0.13

B. Collection System

1. The month of November had extremely high flows because of the rainfall we received and the king tides happening at the same time.

2. Vacuum Station Salinities for September:
 - a. Vacuum station salinities at the plants were as follows (in parts per thousand): SA3: 4.69; SA4: 6.44; SA5: 8.57; SA6: 1.84 and SA7: 3.46. These values show a minimal to moderate level of 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 only 2 open code cases in process for failure to connect to the City's central wastewater system, code violations, or expired permits.

5. Callouts

From November 1st to November 30th there were 82 *documented* Call-Outs for the entire Collections System.

Further analysis show, out of these 82 *documented* Call-Outs:

58 were system generated typically a low vacuum detected at one of our Vacuum Stations. These 58 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.

Note: We experienced Inflow and Infiltration problems during the King Tides and Rainstorm in our Collections System from both events we had in November. We have hired extra personnel to start addressing this issue in the new year.

Other call outs were as follows:

- I. *11-1-23: Backup Area 5. 549 Industrial Way.* 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 disconnected due to Saltwater Intrusion from the King Tides we experienced. These Properties were notified by Certified mail about the water intrusion and that repairs needed to be made. We reconnected the Vacuum Pit till repairs were made. No damage to property.
- II. *11-1-23: Backup Area 3. 725 11th St. Lazy Days.* 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. A 90 Deg. Elbow was broken underneath the Dedicated Air Breather letting the king Tides overwhelm the Buffer Tank. We have notified the property owner to fix the Terminal. The Tech replaced the Valve and Controller to put the business back into operation. No damage to property.
- III. *11-2-23: Backup Area 4. 101 Ocean Terr.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and Cleanout. He found the unit to be in good working order. He let the Homeowner know to call a plumber.
- IV. *11-3-23: Backup Area 5 Remote. 1044 83rd St.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and Cleanout. He found the unit to be in good working order. He let the Homeowner know to call a plumber.

- V. *11-3-23: Backup Area 3. 408 30th St.* 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 Valve and Controller to be defective. He replaced both the Valve and Controller then proceeded to put the unit back into service. No damage to property.
- VI. *11-5-23: Backup Area 3. 725 11th St. Lazy Days.* 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. A 90 Deg. Elbow was broken underneath the Dedicated Air Breather letting the king Tides overwhelm the Buffer Tank. We have notified the property owner to fix the Terminal, Again, the Tech replaced the Valve and Controller to put the business back into operation. No damage to property.
- VII. *11-7-23: Backup Area 5. 9300 Aviation Blvd.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and Cleanout. He found the unit to be in good working order. He let the Homeowner know to call a plumber.
- VIII. *11-8-23: Backup Area 5. 935 107th St.* 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 disconnected due to Saltwater Intrusion from the King Tides we experienced. These Properties were notified by Certified mail about the water intrusion and that repairs needed to be made. We reconnected the Vacuum Pit till repairs were made. No damage to property.
- IX. *11-9-23: Backup Area 3. 11990 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. He found the Valve and Controller to be defective. He replaced both the Valve and Controller then proceeded to put the unit back into service. No damage to property.
- X. *11-10-23: Backup Area 7. 58412 O/S Hwy.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Grinder Pump Station and found that both Flyght Grinder Pumps had burned out. He replaced both pumps and put Station back into service. No damage to property.
- XI. *11-11-23: Backup Area 5. 107 Allyn Pl.* 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 disconnected due to Saltwater Intrusion from the King Tides we experienced. These Properties were notified by Certified mail about the water intrusion and that repairs needed to be made. We reconnected the Vacuum Pit till repairs were made. No damage to property.
- XII. *11-12-23: Backup Area 3. 1210 O/S Hwy. 7 Mile Grill.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Buffer Tank and found the unit to be in good working order. It turned out that the Water the Business Owner thought was coming from the top of the Buffer Tank was actually a broken water line belonging to the Business. He let the Business know to call a plumber.
- XIII. *11-12-23: Backup Area 3. 890 15th St.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and

Cleanout. He found the unit to be in good working order. He let the Homeowner know to call a plumber.

- XIV. 11-22-23: *Backup Area 7. 57283 Morton St.* 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 Grinder Pump Station. He proceeded to troubleshoot the Station and found that both Stators to be bad. He replaced both Stators then proceeded to put the station back into service. No damage to property.
- XV. 11-23-23: *Backup Area 5. 265 115th St.* 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 Valve and Controller to be defective. He replaced both the Valve and Controller then proceeded to put the unit back into service. No damage to property.
- XVI. 11-23-23: *Backup Area 3. 199 16th Ct. Gulf. Porky's.* 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.
- XVII. 11-23-23: *Backup Area 4. 1156 Camino del Vientos.* 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.
- XVIII. 11-23-23: *Backup Area 5. 116th St. Ocean.* 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 Valve and Controller to be defective. He replaced both the Valve and Controller then proceeded to put the unit back into service. No damage to property.
- XIX. 11-26-23: *Backup Area 3. 1246 Oceanview. Castaway's.* 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 Vacuum Pit to empty the water and put the Vac Pit back into service. No damage to property.
- XX. 11-26-23: *Backup Area 5. 123 Bruce Ct.* 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 Vacuum Pit to empty the water and put the Vac Pit back into service. No damage to property.
- XXI. 11-26-23: *Backup Area 5. 265 116th St.* 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 Sensor Tube was clogged with grease. He cleared the grease and put the unit back into service. No damage to property.
- XXII. 11-28-23: *Backup Area 3. 725 11th St. RV Resort.* 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 Valve and Controller to be defective. He replaced both the Valve and Controller then proceeded to put the unit back into service. No damage to property.

- XXIII. 11-30-23: *Backup Area 5 Remote. 650 82nd St.* The MOD phone received a call about a backup at the property. The Tech responded and inspected the Vacuum Pit and Cleanout. He found the unit to be in good working order. He let the Homeowner know to call a plumber.

6. Odor Complaints / Mitigation

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

C. Plant Upgrades & Construction Projects (No changes this month)

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 is on the back burner until more funding is received.
2. A CDBG-DR Grant has been received for electrical upgrades, vacuum monitoring system, and flood wall at Area 6 plant. The flood wall is on hold for now due to the costs. The electrical upgrades bids were received, and an award is recommend at this council meeting.
3. The design for the Area 3 WWTP expansion is nearly completed and permitting through FDEP is underway at this time. We advertised the notification of "Intent to Issue" for the WWTP operating permits for Service Areas 3, 4, & 6 and remitted the proof to FDEP. The issuance of our permits is still on hold but FDEP has required us to complete a permit renewal application which we have submitted. We hope the holds on our permits will be removed soon.

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.