




Utility Department Monthly Update

MEETING DATE: July 13, 2021

TO: Honorable Mayor and City Councilmembers

FROM: Daniel Saus, Utility Director 

THROUGH: George Garrett, City Manager

SUBJECT: June 2021 Utility Department Update

A. Wastewater Treatment Plants

1. General Issues

- a. The only large issue in June was the large vacuum pumps at the Area 4 plant keep overheating. We had rebuilt pumps installed and continue to have issues. Details are in the call out report in section 5a.
- b. The work related to the ACOE grant money at the Area 3 plant is going well. Unfortunately, due to COVID related delays it is not yet 100% completed as expected. Jennifer requested that ACOE extend our reimbursement deadline to the end of August, and they approved that new deadline. We should have 90% of the work completed by then barring any further materials issues.

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 May 2021 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:

MAY 2021

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	0.200	1.66	1.6	0.5	1.0	1.07	2.72	0.547	0.717
AREA 4	0.400	0.262	1.0	1.7	0.5	1.4	1.69	1.7	0.280	0.192
AREA 5	0.450	0.333	2.94	1.5	1.0	1.3	0.86	1.2	0.36	0.40
AREA 6	0.200	0.088	2.19	1.7	0.5	1.1	0.775	1.36	0.391	0.40
AREA 7	0.200	0.032	1.82	2.1	0.5	0.5	0.08	1.89	0.167	0.287

B. Collection System

1. The month of June was relatively quiet with flows at the normal rate for this time of year.

2. Vacuum Station Salinities for June:

a. April's vacuum station salinities were at as follows (in parts per thousand): SA3: 1.85 SA4: 1.97; SA5: 4.39; SA6: 2.28 and SA7: 0.81. This indicates a minimal amount of saltwater intrusion into our system from the king tides except for SA5 where we continue to find issues on the private side of the system.

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 8 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 June 1st to June 30th there were 58 documented call outs for the entire collections system. Of these, 40 were system generated typically a low vacuum detected at one of our vacuum stations. These 40 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.

We had a couple of unusual events to report this month. One was a rain event that caused some inflow and intrusion problems for the vacuum system. And the other was a 40 hp vacuum pump that reached the end of its service life. When that vacuum pump was exchanged with what was supposed to be a rebuilt spare from our warehouse, it was discovered that the rebuilt unit was not fully operational from the supplier that did the work. We are no longer using that supplier since Jan. of 2021 because of the same issues in the past and have now been dealing with an OEM supplier since then. That new supplier is in the process of sending the City 2 brand new 40 hp Vacuum Pumps as backups.

- b. The other call outs were as follows:

- i. 6-5-21: Backup Area 3. Porky's 1410 O/S Hwy. The MOD phone received a call about a backup at the property. The Tech responded. He inspected the vac pit and found the controller was bad. He replaced the controller and put the vac pit back into service. No damage to property.

- ii. 6-7-21: Backup Area 7. 57365 Morton Street Ext. The MOD phone received a call about a backup at the property. The Tech responded to troubleshoot the problem. He found bad stators on the pumps at the grinder pump station. He replaced the stators and put the station back into service. No damage to property.

- iii. 6-8-21: Backup Area 4. 237 Sombrero Bch. Blvd. 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 to be

overwhelmed with water. He Manually fired the vac pit clearing the water and put the vac pit back into service. No damage to property.

iv. 6-10-21: Backup Area 7. 58346 Morton St. The MOD phone received a call about a backup at the property. The Tech responded to troubleshoot the problem. He found bad stators on the pumps at the grinder pump station. He replaced the stators and put the station back into service. No damage to property

v. 6-10--21: Backup Area 6. 9 Ave. F. 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 to be overwhelmed with water. He manually fired the vac tit clearing the water and put the vac pit back into service. No damage to property.

vi. 6-12 -21: Backup Area 7. 58346 Morton St. The MOD phone received a call about a backup at the property. The Tech responded to troubleshoot the problem. He found bad Flyght Pumps in the station. He replaced both pumps with e-one Metering pumps and put the station back into operation. No damage to property.

vii. 6-13-21: Backup Area 5. 11611 6yj Ave Ocean. The MOD phone received a call about a backup at the property. The Tech responded. He inspected the vac pit and found the surge suppressor was clogged. He cleaned the surge suppressor and put the vac pit back into service. No damage to property.

viii. 6-16-21: Backup Area 7. 39 Treasure Rd. The MOD phone received a call about a backup at the property. The Tech responded and found the station would pump down on hand and did so. The lift station Tech showed up and found the on/off float to be bad and replaced it. He put the station back into service. No damage to property.

ix. 6-17-21: Backup Area 7. The Wreck 58668 O/S Hwy. The MOD phone received a call about a backup at the property. The Tech responded to troubleshoot the problem. He found bad stators on the pumps at the grinder pump station. He replaced the stators and put the station back into service. No damage to property.

x. 6-17-21: Backup Area 4. Skip Jack Resort 19 Sombrero Blvd. The MOD phone received a call about a backup at the property. The Tech responded. He inspected the vac pit and found the surge suppressor, valve and controller were bad. He replaced all three. He then put the vac pit back into service. No damage to property.

xi. 6-18-21: Backup Area 7. 58875 O/S Hwy. The MOD phone received a call about a backup at the property. The Tech responded to troubleshoot the problem. He found bad stators on the pumps at the grinder pump station. He replaced the stators and put the station back into service. No damage to property.

xii. 6-19-21: Backup Area 4: 138 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. He found the vac main to be overwhelmed with water. He Manually cleared the vac main of water. Then put the Buffer Tank back into service. This was the result of the 40 hp Vacuum Pump wearing out at Area 4 Vacuum Station. No damage to property.

xiii. 6-19-21: Backup Area 4. Steak and Lobster 3660 O/S Hwy. The MOD phone received a call about a backup at the property. The Tech responded and inspected the Buffer Tank. He found the Vac Main to be overwhelmed with water. He manually cleared the vac main of water. Then put the Buffer Tank back into service. This was the result of the 40 hp Vacuum Pump wearing out at Area 4 Vacuum Station. No damage to property.

xiv. 6-21-21: Backup Area 3. 306 12th Street. The MOD phone received a call about a backup at the property. The Tech responded. He inspected the vac pit and found the surge suppressor, valve and controller were bad. He replaced all three. He then put the vac pit back into service. He then found the suction tube was clogged with debris. He cleared the debris. He replaced the surge suppressor, valve and controller. He then put the vac pit back into service. No damage to property.

xv. 6-22-21: Backup Area 6. 9 Ave. F. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vac pit and cleanout. He found the vac pit was in good operating condition. Homeowner issue.

xvi. 6-23-21: Backup Area 4. 12 Man-o-War. The MOD phone received a call about a backup at the property. The Tech responded and inspected the vac pit and cleanout. He found the vac pit was in good operating condition. Homeowner issue.

xvii. 6-23-21: Backup Area 4. 42 Treasure Rd. The MOD phone received a call about a backup at the property. The Tech responded. He inspected the vac pit and found the surge suppressor was bad. He replaced the surge suppressor, valve and controller. He then put the vac pit back into service. No damage to property.

xviii. 6-21-21: Backup Area 7. 348 Guava Ave. The MOD phone received a call about a backup at the property. The Tech responded to troubleshoot the problem. He found bad stators on the pumps at the grinder pump station. He replaced the stators and put the station back into service. No damage to property.

6. Odor Complaints / Mitigation

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

C. Plant Upgrades & Construction Projects

1. The design for the sludge facility at Area 6 is getting back on track. The City received about \$3.5 million in Stewardship funding this year and plans to move this project forward.
2. The construction for the Area 3 to 4 force main is completed.
3. 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 has been approved and is underway.
4. The design work and engineering is underway to complete the ACOE grant work for this fiscal year. We believe we can make the deadline of the end of July for reimbursement requests.

D. Grants Update Summary

1. We received notification of an award of \$3,500,000 for Stewardship this year!
2. In January we were informed we are receiving \$1,700,000 from ACOE for fiscal year 20/21!
3. Regarding the ACOE PCA: in August we received a reimbursement of \$1,245,000.00 from ACOE for FKWQIP for fiscal year 19/20.