



# City of Marco Island

Meeting Date: May 4, 2020  
To: City Council  
From: Jeffrey E. Poteet, General Manager- Water & Sewer  
Through: Mike McNees, City Manager  
Re: Water and Sewer (W&S) Departmental Report

Both the City's drinking water and wastewater operations are in compliance with Florida Department of Environmental Protection (FDEP) regulations and all other regulatory entity requirements. The Water and Sewer (W&S) Department is operating within the approved budget.

## **FDOT Project**

SR 951 is currently under construction by FDOT from the Jolley Bridge north to Fiddler's Creek for the milling and resurfacing project. The FDOT engineers identified five areas where we had to relocate our underground utilities because of conflict with light foundations, guardrail extensions, and storm drains. In mid-March, we were notified of a conflict between our 10-inch sewer forcemain and a new stormwater basin to be located on SR 951 between McIlvaine Creek and Mainsail Dr. To resolve the conflict, the City's pipe would need to be deflected, which will allow the new storm pipe to be installed. The Marco Shores wastewater pumping system was taken offline for this work to be completed. The wastewater collection system was maintained using pumper trucks to provide continuous wastewater service to the residents in the area. The excavation and piping modifications was done inhouse, at night, using City staff and City equipment (excavator and dump truck) The relocation cost, including labor and outside contracted pumper trucks was \$16,500.00.



There are other areas identified by FDOT, as possible conflicts; however, most of the underground work has been completed.

## **Marco Shores Alternative Water and Sewer Improvements Project**

The contractor completed the demolition of the Marco Shores wastewater treatment plant located in Mainsail Drive and Capri pump station located in Capri Blvd. The substantial completion inspections for the entire project was performed during the month of April. A final punch list will be submitted to the Contractor by the end of the month. The project is nearing completion. The Contractor has 30 days per contract to complete the work listed in the punch list. Contractor and Engineer are working on permits closeout. The project is within the approved budget.



With the demolition of the facility, the treatment plant site and the effluent disposal site are no longer needed for water and sewer operations. These properties can be used to meet another City need, sold, or possibly retain ownership and convert into a wetland. Wetland mitigation credits could then be sold to a developer.



### **Marco Shores Treatment Facility Site**

This 4.15-acre lakefront property is located just east of the Marco Island airport. The 5.57-acre property adjacent to the City's parcel sold on 1/23/19 for \$2,100,000. This property would need to be appraised; however, the lake view from the City's site is much wider and may be more desirable. The owner of the adjacent property has shown interest in acquiring this parcel.



### **Effluent Disposal Site**

This parcel was used to discharge the treated wastewater (effluent) from the Marco Shore treatment facility. The triangle shape parcel is bordered on two sides by parcels owned by Rookery Bay and on the north side by Fiddler's Creek. The potential buyers for the parcel are the general development builders associated with the Fiddler's Creek development. Instead of selling the property, it could possibly be turned into a wetland and used to sell wetland credits. Dr. Weinstein supplied a report to the W&S Options Committee (OC), which estimated the value of wetlands credits at \$100,000 to \$120,000 per acre, which would value the property (over time) at about two to three million dollars. A drawback from selling wetland credits is the seller must maintain the property forever (typical cost of \$400/acre-year). The initial cost to convert the site to a wetland is estimated at \$250,000 (W&S OC). Additional effort would be required to obtain a better all-in cost. Whether the City sells the property or makes the property a wetland, the City should retain a specialist to evaluate the best path to follow.



Water Service Interruptions with Boil Water Notice (BWN)			
Month	Number of Service Calls Resulting in a BWN	Total Number of Customers Affected in the Month	Large Interruptions 50 Customer or More
April-19	2	950	2 Condos -950 Units-Owner Requested
May-19	5	138	No Condos
June-19	11	853	2 Condos-605 Units
July-19	1	132	1 Condo-132 Units
Aug-19	4	559	1 Hotel-350 Rms-Requested
Sept-19	6	305	2 Condos-167 Units
Oct-19	4	230	1 Condo-125 Units
Nov-19	5	123	1 Condo-42 Units
Dec-19	4	128	2 Condos--17 Units
Jan-20	7	379	2 Condos-66 Units-21 Commercial
Feb-20	1	14	No Condos
Mar-20	2	76	1 Condo-57 Units
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## Treatment Plant Data

Starting Date: **3/1/2020**

Rain Fall for Time Period **0.00** Inches

Ending Date: **3/31/2020**

### Aquifer Storage & Recovery

ASR - Injection Avg. Daily Flow	<b>0.00</b> MGD	Mar-20
ASR - Recovery Avg. Daily Flow	<b>4.14</b> MGD	

Average Daily Flow (ADF) in  
Million Gallons  
Million Gallons per Day (MGD)

### Marco Island Drinking Water

		Max Day	Max Day	Flow
Combined Consumer ADF	<b>9.65</b> MGD	3/14/2020	<b>11.17</b>	MGD
NWTP Consumer ADF	<b>3.88</b> MGD	3/9/2020	<b>4.46</b>	MGD
SWTP Consumer ADF	<b>5.77</b> MGD	3/16/2020	<b>6.86</b>	MGD

### Finished Water Testing

Minimum Chlorine Residual **2.90** mg/L

	Maximum	Minimum		Maximum	Minimum	
Turbidity	<b>0.05</b>	<b>0.01</b>	NTU	Chlorides	<b>136</b>	<b>120</b> mg/L
Total Dissolved Solids	<b>304.00</b>	<b>266.00</b>	mg/L	Color	<b>8</b>	<b>4</b> mg/L
P-Alkalinity	<b>6.00</b>	<b>4.00</b>	mg/L	Phosphate	<b>0.65</b>	<b>0.1</b> mg/L
M-Alkalinity	<b>44.00</b>	<b>33.00</b>	mg/L	Ammonia	<b>0.7</b>	<b>0.48</b> mg/L
Cal-Hardness	<b>116.00</b>	<b>88.00</b>	mg/L	Aluminum	<b>0.08</b>	<b>0.03</b> mg/L
Total Hardness	<b>142.00</b>	<b>118.00</b>	mg/L	pH	<b>8.93</b>	<b>8.73</b> SU

**Mar-20**

### Marco Shores Drinking Water Purchase

Monthly Flow - MGD			CL2 Residual - Minimum	
ADF	Total Flow	Monthly Max Day		
<b>0.000</b>	<b>0.0</b>	<b>3/1/2020</b> <b>0.000</b>		

**Mar-20**

### Wastewater - RWPF

Average Flow		Monthly Max Day		Monthly Testing		
Influent	<b>2.54</b> MGD	<b>3/6/2020</b>	<b>2.969</b>	Influent	Effluent	
Reuse	<b>2.67</b> MGD	<b>3/13/2020</b>	<b>3.3</b>	BOD	<b>267</b>	<b>1.93</b> mg/L
Deep Well	<b>0.135</b> MGD	<b>3/7/2020</b>	<b>0.879</b>	TSS	<b>188</b>	<b>0.6 U</b> mg/L
				NO3	<b>NA</b>	<b>5.44</b> mg/L