



City of Marco Island

Meeting Date: September 7, 2021
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 follow 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. Below is a summary of department activities during the past month.

ANNUAL TEMPORARY MODIFICATION TO THE DISINFECTION PROCESS

The City of Marco Island (City) will temporarily change the disinfection process for the potable (drinking) water supply of the Marco Island and Marco Shores service areas. From 9/1/21 through 9/30/21, the water will be disinfected with free chlorine rather than chlorine combined with ammonia (chloramines). This conversion to free chlorine (a stronger disinfectant) from chloramines allows the city to perform an annual water distribution system purge as recommended by the Florida Department of Environmental Protection for water utilities using chloramines as their primary disinfectant. The process began on 9/1/21. https://www.cityofmarcoisland.com/sites/default/files/fileattachments/water_amp_sewer/page/6491/2021_marco_island.shores_disinfection.pdf.

Goldenrod Bridge Water Main Replacement

The project to replace the existing corroded 6-inch diameter steel water main attached to the Goldenrod Bridge that was installed in the mid 1980's is moving forward. The ROW permit has been issued and the contractor will commence the mobilization on 9/7/21. The work includes the westbound traffic lane closure on Goldenrod Bridge during working hours of 8:00 am to 5:00 pm until the completion of this project in November 2021.



Vacuum Truck Purchase

The W&S Department's new vacuum truck has been delivered and staff has been trained to operate it. Staff is currently coordinating with a vendor to have City logos and lettering applied. Once complete, the truck will be placed in service locating underground utilities, repairing mains, cleaning gravity sewers, and vacuuming spills.



Acidification of Brackish Groundwater Wells No. 14 and No. 19.

The project to rehabilitate two brackish water production wells (#'s 14 and 19) with acid to decalcify the walls of the wells is in progress. The Contractor implemented the MOT and mobilized RO well #19 on 8/18. Contractor conducted the pre-treatment step-drawdown testing with the existing pump. Construction removed wellhead and submersible pump in coordination with the City Staff. The project is anticipated to be completed in 120 days. Although no lane closures are anticipated during the acidification treatment on RO well #19 (San Marco Road), lane closure will occur during the acidification treatment on RO well#14 on S. Floral St starting on 9/7 until 10/5. Local traffic will be able to transit.



Collier Blvd Bridge at Century Dr. Piping Replacement

W&S staff obtained a proposal, and the PO was issued for an engineering firm to design the replacement of three mains: water, force, and reclaimed water crossing under the west and east side of the Century Dr. Bridge. In addition, all three mains are supported by the concrete bridge piers and pipe hangers, the engineer will have to design the new pipe support. The three mains will be replaced as they are in very poor condition. The project kick-off meeting is scheduled for 9/10/21.



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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
Aug-20	4	216	Jamaica/Echo area
Sept-20	9	236	Yellowbird-60
Oct-20	6	329	1 Condo-136 units and Mendel Crt-63
Nov-20	2	104	1 Condo - 80 Units
Dec-20	4	135	North Collier-80
Jan-21	3	203	Mainsail-100
Feb-21	4	358	2 Condos-333 Units
March-21	2	31	
April-21	1	37	
May-21	1	22	
June-21	4	163	1 Royal Marco Way-112
July-21	8	223	2 Marco Villas-140



Treatment Plant Data

Starting Date: **6/1/2021**
 Ending Date: **6/30/2021**

Rain Fall for Time Period **12.30** Inches

Aquifer Storage & Recovery	Average Daily Flow (ADF)
ASR - Injection Avg. Daily Flow 0.00 MGD	Million Gallons per Day (MGD)
ASR - Recovery Avg. Daily Flow 3.46 MGD	"U" Undetected - results below detection limit

Marco Island Drinking Water			
	Max Day	Max Day	Flow
Combined Consumer ADF	8.18 MGD	6/5/2021	10.60 MGD
NWTP Consumer ADF	3.48 MGD	6/3/2021	4.52 MGD
SWTP Consumer ADF	4.70 MGD	6/5/2021	6.38 MGD

Finished Water Testing						
Minimum Chlorine Residual		3.40 mg/L				
	Maximum	Minimum		Maximum	Minimum	
Turbidity	0.01	0.01	NTU	Chlorides	146	128 mg/L
Total Dissolved Solids	351.00	3.00	mg/L	Color	8	3 mg/L
P-Alkalinity	10.00	3.00	mg/L	Phosphate	68	0.33 mg/L
M-Alkalinity	40.00	18.00	mg/L	Ammonia	0.98	0.64 mg/L
Cal-Hardness	92.00	42.00	mg/L	Aluminum	0.08	0.03 mg/L
Total Hardness	124.00	100.00	mg/L	pH	8.84	7.32 SU

Jun-21		Wastewater - RWPF					
	Average Flow	Monthly Max Day		Monthly Testing			
Influent	2.29 MGD	6/14/2021	3.53	Influent	Effluent		
Reuse	1.57 MGD	6/10/2021	2.93	BOD	287.8	1.00 mg/L	
Deep Well	0.911 MGD	6/30/2021	2.249	TSS	197.2	0.6 U mg/L	
				NO3	NA	4.48 mg/L	