



City of Marco Island

Meeting Date: October 4, 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.

Goldenrod Ave. Bridge - Water Main Replacement

This project is currently under construction and will replace the existing 6-inch diameter steel water main attached to the Goldenrod Ave. Bridge that was installed in the mid 1980's. The Contractor installed floating turbidity barriers, silt fences, and a temporary 6-inch diameter bypass water main. The Contractor will demolish and remove the existing steel water main during the week of 9/27/21. Traffic limited to one lane at Goldenrod Bridge during working hours from 8:00 am to 5:00 pm until the completion of the project in December.



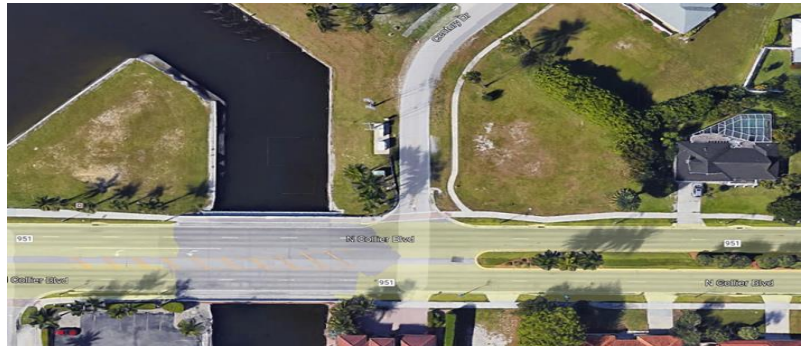
Acidification of Brackish Groundwater Wells No. 14 and No. 19.

This project is in progress and will rehabilitate two brackish water production wells (#'s 14 and 19) via acid decalcification. The Contractor injected acid, conducted the air-lift development, performed the post-treatment video survey, re-installed the pump, pipe, and cable, and has tested the well turbidity on Well #19, located on San Marco Rd. Work on well #14 (on Floral St.) will commence in October. Floral St. will be closed during the treatment. The aerial photo depicts the maintenance of traffic plan. Until the treatment is completed, only local traffic will be allowed on Floral St. in October and November.



Collier Blvd Bridge at Century Dr. - Piping Replacement

The design for the replacement of the water, reclaimed water, and sanitary force mains attached to the Collier Blvd. bridge is in progress and scheduled to be completed in early 2022. Construction is anticipated to last 8-12 months and will commence after bidding and contract award.



Corrosion Inhibition

The Water & Sewer Department's corrosion inhibition program consists of identifying infrastructure that is corroded or worn and needs to be re-coated in order to protect the asset. The Reclaimed Water Production Facility's deep well injection pipes and pumps was completed in September:



Purchase of 60 Standby Generators

In 2019, the City of Marco Island executed a hazard mitigation project grant agreement with the State of Florida Department of Emergency Management to purchase 60 portable generators. The project was publicly bid and the contract awarded in 2020. The first generator was recently delivered and City staff is working with a local vender to have City of Marco Island logos and lettering applied. The generators will be used to power wastewater lift stations and RO wells during power outages.



Ten Year Water Supply Facilities Work Plan

Florida Statutes require each local government to address in its comprehensive plan water supply sources necessary to meet and achieve the existing and projected water use demand. State law also requires local governments to prepare and adopt "Ten Year Water Supply Facilities Work Plan" (or the Water Plan) and amend their comprehensive plans to incorporate the Water Plan by reference. The South Florida Water Management District's (SFWMD) Governing Board adopted "2017 Lower West Coast Water Supply Plan Update" in December 2017.

This type of comprehensive plan amendment (incorporation of a document/plan by reference) calls for the expedited state review process. This means that after the Planning Board approves the ordinance amending the comprehensive plan, the packet will be forwarded to the City Council for the first reading. Within 10 days after the first reading, the amendment and appropriate supporting documents will be sent to the reviewing agencies, such as Department of Economic Opportunity, SFWMD, Department of Environmental Protection, etc. Second reading of the ordinance in front of the City Council will be held after reviewing agencies have sent back their comments.

The presentation to the Planning Board is scheduled for November 5 and the first reading to City Council is planned for December 6.

Water Service Interruptions with Boil Water Notice (BWN)			
Month	Number of Service Calls Resulting in a BWN	Number of Customers Affected in the Month	Large Interruptions 50 Customer or More
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
Aug-21	3	222	Somerset -122 and Royal Marco Way- 80



Treatment Plant Data

Starting Date: 7/1/2021

Rain Fall for Time Period 13.80 Inches

Ending Date: 7/31/2021

Average Daily Flow (ADF)

Aquifer Storage & Recovery

ASR - Injection Avg. Daily Flow 0.00 MGD

Jul-21

ASR - Recovery Avg. Daily Flow 0.00 MGD

Million Gallons per Day (MGD)

"U" Undetected - results below
detection limit

Marco Island Drinking Water

Combined Consumer ADF 7.17 MGD

NWTP Consumer ADF 3.02 MGD

SWTP Consumer ADF 4.16 MGD

Max Day	Max Day	Flow
7/29/2021	11.08	MGD
7/29/2021	6.32	MGD
7/3/2021	5.42	MGD

Finished Water Testing

Minimum Chlorine Residual 3.50 mg/L

Maximum Minimum Maximum Minimum

Turbidity	0.01	0.01	NTU	Chlorides	142	106	mg/L
Total Dissolved Solids	316.00	277.00	mg/L	Color	7	2	mg/L
P-Alkalinity	7.00	4.00	mg/L	Phosphate	0.79	0.6	mg/L
M-Alkalinity	38.00	34.00	mg/L	Ammonia	0.87	0.66	mg/L
Cal-Hardness	90.00	80.00	mg/L	Aluminum	0.1	0.05	mg/L
Total Hardness	128.00	110.00	mg/L	pH	8.9	8.66	SU

Jul-21

Wastewater - RWPF

Average Flow

Monthly Max Day

Monthly Testing

					Monthly Testing			
Influent	2.54	MGD	7/6/2021	3.85		Influent	Effluent	
Reuse	1.49	MGD	7/23/2021	2.68	BOD	274.5	1.50	mg/L
Deep Well	1.195	MGD	7/6/2021	2.876	TSS	107.5	0.6 U	mg/L
					NO3	NA	4.41	mg/L