



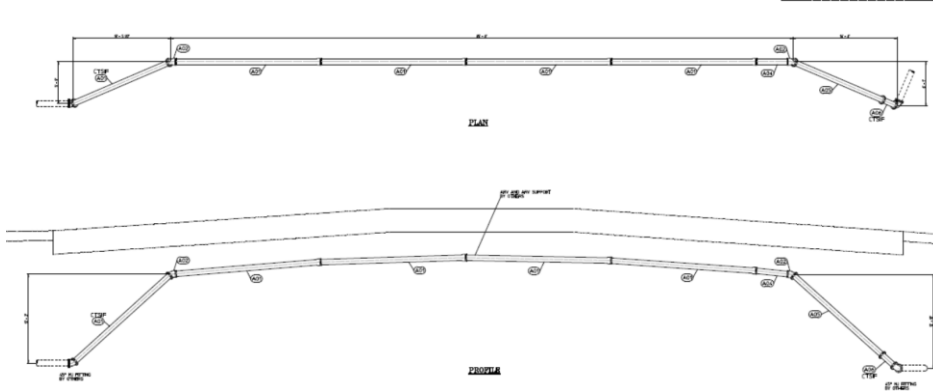
City of Marco Island

Meeting Date: July 19, 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 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 in progress. The City has reviewed the shop drawings, and materials will arrive by 8/7/21. Construction will commence in August and is expected to be completed in November 2021. At this time, no traffic impacts are anticipated with this project.



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 City issued the notice to proceed (NTP) on 7/7/21. The Contractor will



mobilize during the week of 7/11/21. Construction is anticipated to last 120 days. At this time, no traffic impacts are anticipated with this project.

Collier Blvd Bridge at Century Dr. Piping Replacement

W&S staff has solicited an engineering proposal for the design and limited construction services for the replacement of a water main, reclaimed water main, and force main crossing located under the west and east side of the bridge. All three mains are supported by the concrete bridge piers and pipe hangers. The three mains are in very poor condition due to the aging of the pipes and the environmental conditions at which they are exposed. On June 28, we had a water main break at the corner of the bridge causing water services interruption and lane closure.



Purchase of 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 sixty (60) portable generators. In 2020, the City contracted the purchase via a public bid. The contracted vendor is presently manufacturing and assembling the generators. The first batch of eighteen (18) generators is scheduled to be delivered by early August. The remaining subsequent batches are scheduled to be delivered in September and October. The portable generators will be temporarily housed at the City's treatment plant site in accordance with the FEMA agreement until the permanent structure is constructed at the source water facility.

Dewatering Dumpster Purchase

The City is purchasing a dewatering dumpster to dewater sanitary sludge from the reject pond and headworks screening troughs at the Reclaimed Water Production Facility (RWPF). The dewatering dumpster has a filter insert which allows the liquid to be drained while retaining the solids. The reject pond receives flow from both the RWPF and the North Water Treatment Plant (NWTP). As a result of damage to the NWTP by Hurricane Irma, a large amount of lime sludge was deposited in the pond and now needs to be removed. All the quotes received by the City from contractors for removing the sludge from the pond exceed \$100,000. In contrast, the dewatering dumpster cost is \$15,950 and can be reused as often as needed. City staff will pump the sludge into the dumpster for dewatering. Waste Management will then haul the dewatered sludge to the landfill and return the dumpster. This process will be repeated, as needed. The City may purchase more dewatering dumpsters in the next several months pending the performance of the first dumpster. The new dumpster is expected to be delivered at the end of July.

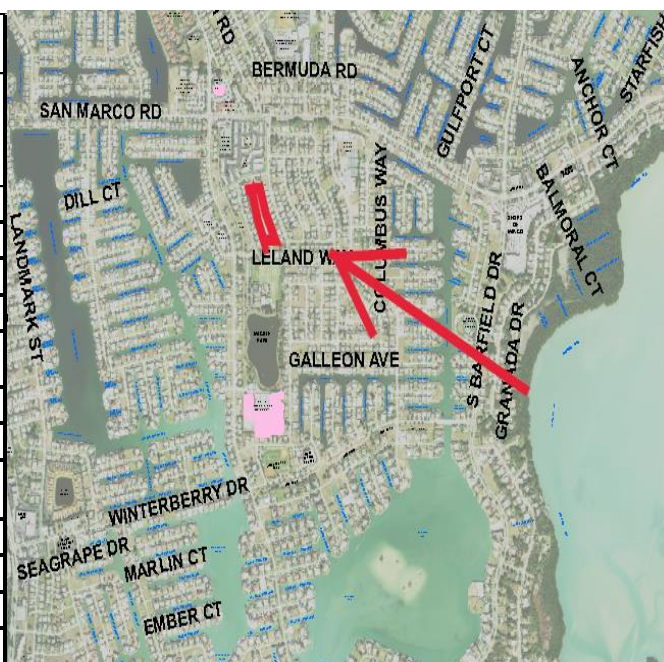


South Water Treatment Plant (SWTP) Reverse Osmosis (RO) Bay Fans

The City contracted the installation of large industrial fans at the SWTP RO filtration bay to improve the air flow and counteract the sweltering heat conditions to keep the pump motors from overheating and to provide acceptable working conditions for plant operations staff. The fans were installed in June.



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
June-20	2	39	
July-20	2	57	
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	



Treatment Plant Data

Starting Date: **4/1/2021**

Rain Fall for Time Period **1.60** Inches

Ending Date: **4/28/2021**

Average Daily Flow (ADF)

Aquifer Storage & Recovery

ASR - Injection Avg. Daily Flow **0.00** MGD

Apr-21

ASR - Recovery Avg. Daily Flow **3.91** MGD

Million Gallons per Day (MGD)

"U" Undetected - results below
detection limit

Marco Island Drinking Water

		Max Day	Max Day	Flow
Combined Consumer ADF	9.78 MGD	4/3/2021	11.40	MGD
NWTP Consumer ADF	3.92 MGD	4/17/2021	4.54	MGD
SWTP Consumer ADF	5.86 MGD	4/10/2021	7.24	MGD

Finished Water Testing

Minimum Chlorine Residual **3.40** mg/L

	Maximum	Minimum		Maximum	Minimum	
Turbidity	0.01	0.01	NTU	Chlorides	135	106 mg/L
Total Dissolved Solids	322.00	299.00	mg/L	Color	7	4 mg/L
P-Alkalinity	8.00	3.00	mg/L	Phosphate	0.81	0.64 mg/L
M-Alkalinity	46.00	33.00	mg/L	Ammonia	0.79	0.62 mg/L
Cal-Hardness	102.00	80.00	mg/L	Aluminum	0.09	0.06 mg/L
Total Hardness	132.00	110.00	mg/L	pH	8.86	8.72 SU

Apr-21

Wastewater - RWPF

Average Flow		Monthly Max Day		Monthly Testing		
Influent				Influent	Effluent	
Reuse	2.55 MGD	4/3/2021	3.02	BOD	313.3	1.00 mg/L
Deep Well	2.6 MGD	4/3/2021	3.24	TSS	103.9	0.6 U mg/L
	0.11 MGD	4/12/2021	1.306	NO3	NA	5.45 mg/L