



# City of Marco Island

Meeting Date: May 6, 2019  
To: City Council  
From: Jeffrey E. Poteet, General Manager- Water & Sewer  
Through: David Harden, Interim City Manager  
Re: Water and Sewer (W&S) Departmental Report

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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.

## **Marco Shores Drinking Water Service Area - Temporary Disinfection Modification**

The treatment process for the potable (drinking) water in Marco Shores will be changed temporarily from 4/12/19 through 5/3/19. 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 a water distribution system purge, as recommended by the Florida Department of Environmental Protection for water utilities using chloramines, as their primary disinfectant. This temporary change in disinfection does not cause adverse health effects. However, during this period you may experience a change in the taste, odor and/or color of the water due to the change in treatment.

## **Multi-Departmental Building**

The City advertised the Request for Qualifications (RFQ) for the architectural design, permitting, and architectural services during construction of the proposed multi-departmental building to be located at the City's North water and wastewater treatment complex on E. Elkcarn Cir. The City received four (4) qualification proposals from Architects for this project. The scoring committee convened on 3/14/19. The deputy city clerk tallied the scoring during the meeting. The architectural firm of Synalovski Romanik Saye received the highest score. The City negotiated a scope and fee for the project and will present the RFQ selection and architectural services contract to City Council for approval at the 5/6//19 City Council meeting.

## **NWTP Membrane Softening**

The City advertised an RFQ for engineering design services for the replacement of the NWTP lime softening system with membrane softening. The membrane softening system will consist of new low-pressure reverse osmosis (LPRO) filtering racks to replace the lime clarifier tank, lime sludge press, sludge pumps, and lime thickening tank. This will eliminate the need to purchase lime and pay for the hauling and disposal of spent lime cake. The City received one RFQ submittal from Jacobs Engineering on 4/11/19. City staff will present the RFQ selection and professional services contract to City Council on 5/20/19.

## **Water and Sewer Relocations on Collier Blvd. to Accommodate FDOT (update)**

This is an update from last month's report. The Florida Department of Transportation (FDOT) will resurface Collier Blvd. from North of the Judge SS Jolley bridge to South of Fiddler's Creek. The City's infrastructure conflicts within FDOT's proposed Collier Blvd improvements have been relocated. The final restoration work for this project is expected to be completed in early May. The FDOT resurfacing project will commence this summer.

## Marco Shores Alternative Water and Sewer Improvements Project

The contractor completed the horizontal drilling operations for the water main and sanitary force main under the Marco River on 4/23/19. The drilling machine will now be moved to the Collier

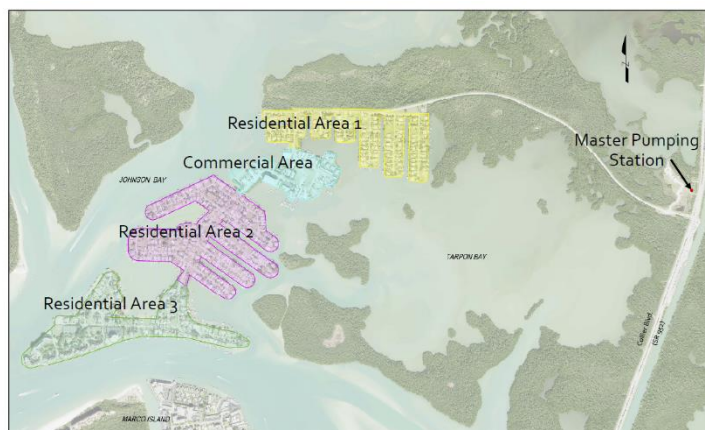


Bldv right-of-way, north of Marco Island for directional drills of the new mains including a drill under the Capri Blvd intersection. No traffic disruptions are anticipated with the drilling operations. The contractor is completing the construction of the new 12" sanitary forcemain along Fairlawn Ct. and Waikiki Ct. Construction along 6<sup>th</sup> Ave will commence during the week of 4/29/19. 6<sup>th</sup> Ave. from Barfield Dr. to Yellowbird St. will be closed for construction from 4/29 through 5/24. The City, engineering consultant, and the contractor are evaluating options for connection of the Marco Shores and Isles of Capri sanitary forcemains to the new master pump station that is located adjacent to the Collier Blvd right-of-way approximately 700 ft. North of the Capri Blvd. intersection. The City had anticipated using an existing old raw water main for this connection since the new master sanitary pump station is located on the site of the old raw water booster pump station, but the Contractor and Engineer could not locate the old main. Consequently, a new main will have to be constructed under Collier Blvd.



## Presentation to SFWMD Big Cypress Basin (BCB) Board

The W&S Department presented the proposed Isles of Capri septic tank replacement project to the SFWMD Big Cypress Basin Board (BCB) on Thursday 4/25/19. The BCB invited the City to present potential projects for grant funding. The City of Naples and Collier County also presented potential projects. The City of Naples presented a similar septic replacement project for funding. Collier County representatives were very interested in the City of Marco Island's proposed Isles of Capri septic tank replacement project and indicated possibilities of collaborating with the City to possibly combine the City's septic tank replacement project with a proposed potential Collier County drainage improvements project on Isles of Capri. There is \$700,000 planned in FY22 for this design



no Basin Board Meeting

Isles of Capri – Sewer Service Area

## Staff Recognition



### Girl Scout Tour

Girl Scout Troop 276 visited the City's North treatment plant complex on 3/22/19

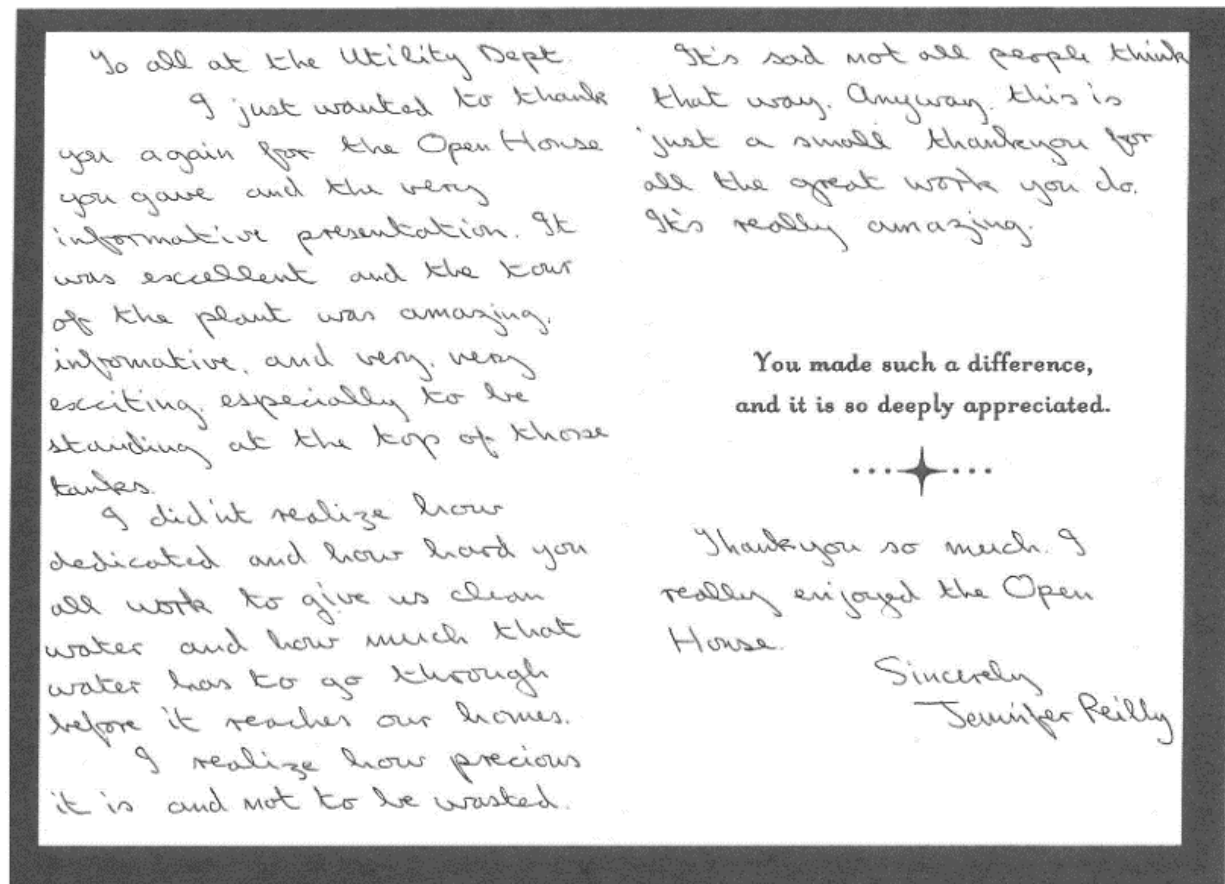
From: Rebecca Anderson <[rebecca.g.anderson@hotmail.com](mailto:rebecca.g.anderson@hotmail.com)>

Sent: Monday, March 25, 2019 11:11 AM

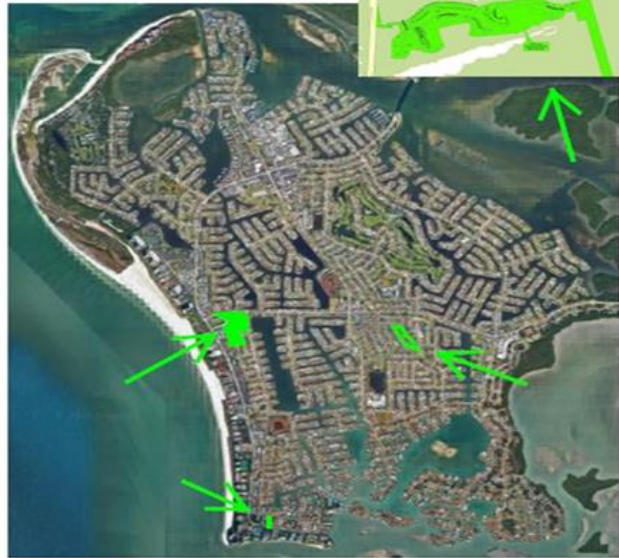
To: Lori Rizzo <[LRizzo@cityofmarcoisland.com](mailto:LRizzo@cityofmarcoisland.com)>

Subject: Thank you

Thanks so much for the amazing opportunity for the girls to tour the water treatment plant on Marco. Your staff was wonderful with our girls.



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
Apr-18	2	43	1 Condo-20 Units
May-18	3	167	1 Condo-30 Units
June-18	7	310	2 Condos-196 Units
July-18	6	131	3 Condos-57 Units
Aug-18	4	115	2 Condos-74 Units
Sept-18	4	432	1 Condo-256 Units
Oct-18	6	287	1 Condo-120 Units
Nov-18	2	44	0 Condo
Dec-18	2	69	1 Condo
Jan-19	3	87	1 Condo
Feb-19	4	70	1 Condo-Owners Request
Mar-19	4	1023	All Mainsail and 1 Condo-988 Units



Treatment Plant Data						
Starting Date:		3/1/2019		Rain Fall for Time Period		2.10 Inches
Ending Date:		3/31/2019				
Aquifer Storage & Recovery				Average Daily Flow (ADF) in Million Gallons		
ASR - Injection Avg. Daily Flow		0.00 MGD	Mar-19			
ASR - Recovery Avg. Daily Flow		3.43 MGD			Million Gallons per Day (MGD)	
Marco Island Drinking Water						
Mar-19			Max Day	Max Day	Flow	
Combined Consumer ADF		9.41 MGD	3/27/2019	11.82	MGD	
NWTP Consumer ADF		3.76 MGD	3/27/2019	5.39	MGD	
SWTP Consumer ADF		5.65 MGD	3/13/2019	6.85	MGD	
Finished Water Testing						
Minimum Chlorine Residual		3.10 mg/L				
	Maximum	Minimum		Maximum	Minimum	
Turbidity	0.06	0.03	NTU	Chlorides	142	120 mg/L
Total Dissolved Solids	303.00	245.00	mg/L	Color	10	4 mg/L
P-Alkalinity	6.00	3.00	mg/L	Phosphate	7	0.44 mg/L
M-Alkalinity	37.00	33.00	mg/L	Ammonia	1.05	0.18 mg/L
Cal-Hardness	125.00	84.00	mg/L	Aluminum	0.12	0.02 mg/L
Total Hardness	150.00	110.00	mg/L	pH	8.91	8.59 SU
Marco Shores Drinking Water Purchase						
Monthly Flow - MGD			CL2 Residual - Minimum 2.1 mg/L			
ADF	Total Flow	Monthly Max Day				
0.205	6.4	3/14/2019 0.301				
Wastewater - RWPF						
Average Flow		Monthly Max Day		Monthly Testing		
Influent	2.67 MGD	3/27/2019	3.126	Influent	Effluent	
Reuse	2.53 MGD	3/29/2019	3.12	BOD	231.3	2.18 mg/L
Deep Well	0.372 MGD	3/19/2019	1.608	TSS	249.3	0.6 U mg/L
Wastewater - Marco Shores WWTP						
Average Flow		Monthly Max Day		Monthly Testing		
Influent	0.128 MGD	3/23/2019	0.160	Influent	Effluent	
				BOD	202	1.90 mg/L
				TSS	306.5	1.80 mg/L