



City of Marco Island

Meeting Date: July 15, 2019
To: City Council
From: Jeffrey E. Poteet, General Manager- Water & Sewer
Through: Michael 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.

Water Treatment Annual Chlorination Change

The water treatment disinfection process will change from chloramines (chlorine + ammonia) to free chlorine (chlorine without ammonia) during the month of September in accordance with state regulations. A notice of the treatment process change is posted on the City's website (<https://www.cityofmarcoisland.com/watersewer/page/water-disinfection-notices>) and a link to the notice will be provided in the mid-July and August Water and Sewer invoices. The normal disinfection treatment process (chloramines) will resume on 10/1/19.

FEMA Hazard Mitigation Grants Approved

The W&S Department applied for 3 hazard mitigation grants through the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA). Recently, FEMA announced that two of the grant requests have been approved, while the third request is still under review. The grant agreements will be presented to City Council for approval as soon as the City receives the contracts from the State of Florida.

1. FEMA approved a \$1,107,000 grant for the installation of windstorm rated overhead roll down doors, retrofitting the existing roof and adding wall enclosures with brace framing to protect the City's membrane bioreactors.
2. FEMA approved a \$1,500,000 grant for the design and construction of an emergency electrical power backup generator for the source water facility located at 7130 Collier Blvd, north of U.S. 41. The source water facility suffered prolonged power outage after hurricane Irma until FPL was able to restore power. The City struggled to meet the community's drinking water demands during this time.
3. FEMA is currently reviewing a City grant request to purchase additional portable generators to power the City's lift stations and ground water wells whenever normal power is unavailable. The City currently has 22 portable emergency generators. Staff jockeyed the generators from one lift station to another post Hurricane Irma, which limited our staff resources.

Lime Sludge Press Building

The contractor submitted the building permit application to replace the building that was destroyed by hurricane Irma. Construction is expected to be complete by the end of the year. The cost of this project is being reimbursed by FEMA.



Grease Damage Prevention Program

The renewal period for the annual Grease Damage Prevention Permit (2020) begins on 8/1/19 and goes through 11/1/19. There is no fee for the permit. Permits submitted after 11/1/19 will be charged a non-compliance fee of \$250. Renewal packets will be sent out to all Food Service Facilities by regular mail and e-mail by 8/1/19. The renewal permit application is available now for download on the City's website, <https://www.cityofmarcoisland.com/forms>.

Marco Shores Alternative Water and Sewer Improvements

Work continues to progress on this project. The pavement and sidewalks on 6th Avenue have been restored. The contractor completed the open-cut portion of the installation of the new sanitary forcemain on E. Elcam Cir. leaving only the connections and restoration as remaining work on Elcam. Casings for the new watermain and sanitary forcemain were installed at the south landing of the Jolley bridge. Portions of the new watermain are being installed in the Collier Boulevard right of way north of Marco Island. There will be traffic lane closures in August and September on Marco Island to accommodate the construction. Some of the lane closures will be to perform excavations in the southbound left lane of North Collier Blvd between the Jolley bridge and N. Barfield Drive.



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
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
Apr-19	2	950	2 Condos-(950 Units)Both Condos Requested Service Interruption
May-19	5	138	0 Condo



Treatment Plant Data

Starting Date: **5/1/2019**

Rain Fall for Time Period **1.20** Inches

Ending Date: **5/31/2019**

Aquifer Storage & Recovery

ASR - Injection Avg. Daily Flow **0.00** MGD May-19
ASR - Recovery Avg. Daily Flow **3.25** 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	8.76 MGD	5/29/2019	10.62	MGD
NWTP Consumer ADF	3.58 MGD	5/27/2019	4.58	MGD
SWTP Consumer ADF	5.18 MGD	5/25/2019	6.47	MGD

Finished Water Testing

Minimum Chlorine Residual **2.80** mg/L

	Maximum	Minimum		Maximum	Minimum	
Turbidity	0.06	0.03	NTU	Chlorides	165	126 mg/L
Total Dissolved Solids	501.00	282.00	mg/L	Color	10	3 mg/L
P-Alkalinity	6.00	2.00	mg/L	Phosphate	0.74	0.56 mg/L
M-Alkalinity	41.00	33.00	mg/L	Ammonia	0.93	0.34 mg/L
Cal-Hardness	278.00	80.00	mg/L	Aluminum	0.74	0.02 mg/L
Total Hardness	320.00	122.00	mg/L	pH	8.86	8.55 SU

May-19

Marco Shores Drinking Water Purchase

Monthly Flow - MGD			CL2 Residual - Minimum		0.9	mg/L
ADF	Total Flow	Monthly Max Day				
0.178	5.5	5/7/2019	0.276			

May-19

Wastewater - RWPF

	Average Flow		Monthly Max Day		Monthly Testing	
Influent	1.76 MGD		5/9/2019	2.048	Influent	Effluent
Reuse	1.95 MGD		5/29/2019	2.87	BOD	167.4 2.36 mg/L
Deep Well	0.08 MGD		5/10/2019	0.865	TSS	168.8 0.6 U mg/L
					NO3	NA 7.18 mg/L

May-19

Wastewater - Marco Shores WWTP

	Average Flow		Monthly Max Day		Monthly Testing	
Influent	0.071 MGD		5/13/2019	0.089	Influent	Effluent
					BOD	120 1.95 mg/L
					TSS	115 1.00 mg/L