



City of Marco Island

Meeting Date: August 6, 2018
To: City Council
From: Jeffrey E. Poteet, General Manager- Water & Sewer
Through: Guillermo Polanco, Interim City Manager
Re: W&S Departmental Report

Both the drinking water and wastewater operations are in compliance with FDEP regulations and all other regulatory entities. The W&S Department is operating within the approved budget.

Grease Damage Prevention Program

The City's Grease Damage Prevention Program's ordinance requires Food Service Facilities (FSF) that were not compliant to become compliant by 7/18/18. Two years ago, there were 41-FSF out of compliance for various violations. The 7/18 deadline has passed, of the remaining 16 FSF that are out of compliance, staff is aware of 15 FSF that are obtaining bids and permits to upgrade their system. Those FSF that are out of compliance will be issued a notice of violation and scheduled before the Special Magistrate. Additionally, non-compliance fees will be assessed to these facilities.

SWTP Concrete Wall Restoration

The perimeter concrete wall along the SWTP property was considerably damaged by Hurricane Irma. The City contracted with the only contractor, which manufactures and installs this particular wall system to perform the repairs. The contractor is performing the wall restoration work from 7/19/18 through 7/24/18.



NWTP Membrane Skids #'s 5 & 6

The contractor (Quality Enterprises) completed the installation of the new membrane skids in June. The manufacturer's (PALL Corp) representative completed the calibration of the new membranes on 7/25/18. The new membranes are undergoing a testing period of 30 days. During this testing period, the new membranes are producing treated water.

NWTP Membrane Skid #1

The manufacturer's (Dow) representatives are currently making repairs and replacing some of the defective membrane modules that were installed in December. This is the first field installation of these newly designed Dow membranes to fit in the skids manufactured by the PALL Corporation. The defects consist of membrane fibers that have separated from the resin bedding inside of the tubes resulting in internal air and water leaks. Dow has been replacing their membranes, as needed at no cost to the City.



NWTP Air Compressors

The City is soliciting public bids to replace the NWTP air compressors with oil free units. The existing air compressors use oil and have been fouling the water filtration membranes with oil and drastically reducing the life of the membranes. Each set of 72 membranes costs roughly \$150,000 to replace. The NWTP has six sets of these membranes, which filter roughly 75% of the water used by Marco Island. The bids should open in September. Staff plans to present the bids to City Council for contract award consideration in September. This is an unexpected unbudgeted expense, however the cost of the replacement compressors will be accommodated within the existing FY18 CIP. Staff estimates that the total cost will not exceed \$180,000.

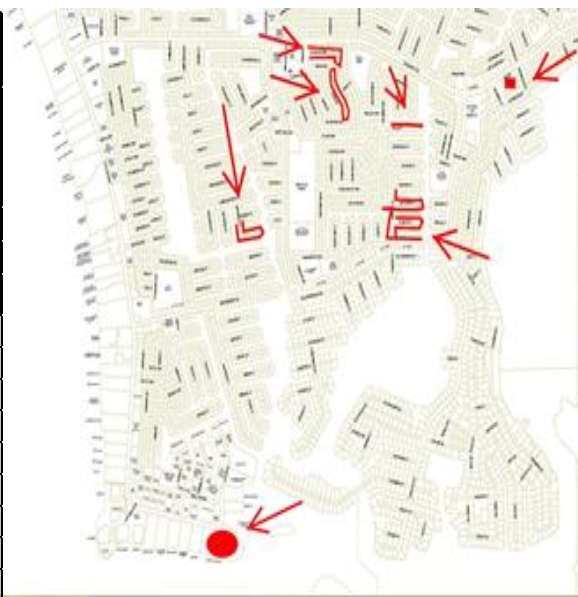


Water Storage Tank Restoration

The water storage tank contractor is completing the restoration of the handrails, stairs, hatches and level indicators that were damaged by Hurricane Irma. Two tanks remain to be completed at the SWTP. The restoration of all other tanks at all other sites has been completed.



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
Jul-17	2	55	
Aug-17	3	121	1 Condo-103 Units
Sep-17	3	28	
Oct-17	14	622	3 Condos-347 Units
Nov-17	5	184	3 Condos-168 Units
Dec-17	4	230	2 Condos-198 Units
Jan-18	6	197	2 Condos-93 Units
Feb-18	5	375	2 Condos-180 Units
Mar-18	6	364	3 Condos-207 Units
Apr-18	2	43	1 Condo-20 Units
May-18	3	167	1 Condo-30 Units
June-18	7	310	2 Condos-196 Units



Treatment Plant Data

Starting Date:	6/1/2018			Rain Fall for Time Period	1.40	Inches
Ending Date:	6/30/2018					
Aquifer Storage & Recovery						
ASR - Injection Avg. Daily Flow		0.00	MGD	Jun-18	Million Gallons per Day (MGD)	
ASR - Recovery Avg. Daily Flow		1.79	MGD		Average Daily Flow (ADF)	
Marco Island Drinking Water						
Jun-18				Max Day	Max Day	Flow
Combined Consumer ADF		7.82	MGD	6/20/2018	9.40	MGD
NWTP Consumer ADF		3.00	MGD	6/30/2018	3.87	MGD
SWTP Consumer ADF		4.82	MGD	6/21/2018	6.15	MGD
Finished Water Testing						
Minimum Chlorine Residual		2.80	mg/L			
	Maximum	Minimum		Maximum	Minimum	
Turbidity	0.07	0.04	NTU	Chlorides	185	120 mg/L
Total Dissolved Solids	398.00	290.00	mg/L	Color	20	0 mg/L
P-Alkalinity	7.00	3.00	mg/L	Phosphate	1.03	0.07 mg/L
M-Alkalinity	53.00	33.00	mg/L	Ammonia	1.28	0.29 mg/L
Cal-Hardness	128.00	92.00	mg/L	Aluminum	0.06	0.01 mg/L
Total Hardness	164.00	112.00	mg/L	pH	9.14	8.58 SU
Jun-18 Marco Shores Drinking Water Purchase						
Monthly Flow - MGD			CL2 Residual - Minimum 2.1 mg/L			
ADF Total Flow		Monthly Max Day				
0.122	3.6589	6/28/2018	0.180			
Jun-18 Wastewater - RWPF						
Average Flow		Monthly Max Day		Monthly Testing		
Influent	1.68	MGD	6/28/2018	1.915	Influent	Effluent
Reuse	2.18	MGD	6/22/2018	2.89	BOD	163.8 1.90 mg/L
Deep Well	0.138	MGD	6/1/2018	1.624	TSS	134.5 0.6 U mg/L
Jun-18 Wastewater - Marco Shores WWTP						
Average Flow		Monthly Max Day		Monthly Testing		
Influent	0.064	MGD	6/3/2018	0.094	Influent	Effluent
				BOD	103.5	1.90 mg/L
				TSS	74.5	2.05 mg/L