City of Marco Island

Meeting Date: August 3, 2026
To: City Council
From: Jeffrey E. Poteet, General Manager- Water & Sewer
Through: Casey Lucius, 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 W&S Department is operating within the approved budget. Below is a summary of department activities during the past month.

The 2025 CCR Water Quality Report for the City of Marco Island
The City of Marco Island 2025 Water Quality Report for the Marco Island Service area is now posted on the City of Marco Island website. View the report at https://www.cityofmarcoisland.com/ccr2025/

2026 Manhole Lining Project
There are approximately 290 miles of sanitary sewer mains and more than 2,100 manholes in the City's wastewater collection system. Over time, manholes can deteriorate due to exposure to corrosive wastewater gases and groundwater, leading to structural weakening, cracking, leaks, and infiltration. To proactively maintain the system and extend the life of these critical assets, the City budgets each year to rehabilitate a portion of its manholes.

Rehabilitation consists of applying a 100% solids epoxy lining to the interior surfaces of each manhole. This protective coating restores structural integrity, seals cracks and other potential infiltration points, helps prevent corrosion, and significantly extends the service life of the structures.

The 2026 Manhole Lining Project will begin on July 28 and is expected to take approximately three months to complete. The project includes the rehabilitation of 30 existing manholes located along West Elkcam Circle, Herb Savage Way, and the Veterans Park area. Each manhole is approximately 4 feet in diameter, with a combined 246 vertical feet of manhole wall scheduled for rehabilitation.

No road closures are anticipated during construction. However, motorists should expect temporary traffic control, including flaggers, in the immediate work areas to safely direct traffic around the active construction zones. A detailed Maintenance of Traffic (MOT) plan will be shared through the City's social media channels before work begins so residents can plan accordingly.

This annual maintenance program helps protect the City's wastewater infrastructure, reduces groundwater infiltration into the sewer system, and minimizes the need for more costly repairs or replacements in the future.

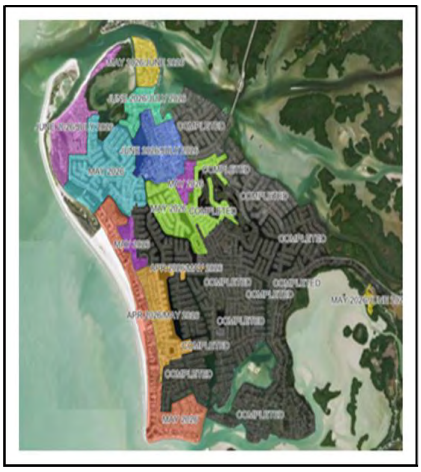
Caught in the Act – Rogelio Carmona
Rogelio Carmona-Silva has been Caught in the Act for providing exceptional customer service.

After receiving an after-hours emergency call regarding a malfunctioning backflow prevention device that was discharging large volumes of water, Rogelio responded promptly and quickly diagnosed the problem. He patiently explained the issue and the repair process to the resident, ensuring they understood what was happening every step of the way.

Rogelio remained on-site until he was confident the problem had been resolved and even returned later that day to verify the repair continued to function properly.

The resident later contacted the City to commend Rogelio, describing his efforts as "customer service at its best" and praising his professionalism, communication, and dedication.
Rogelio's actions exemplify the outstanding customer service, professionalism, and commitment to excellence that the Water & Sewer Department strives to provide to the Marco Island community.

AMI Update
The contractor has installed approximately 90% of the 11,500 advanced water meters throughout Marco Island. The remaining installations involve properties with difficult access, including dense vegetation, bees, locked or obstructed meter boxes, and meters located inside buildings. Despite these challenges, the project remains on schedule and within budget, with completion anticipated within the next two months.



As part of the project, service line material inspections have also been completed for approximately 90% of utility service connections to comply with the EPA's Lead and Copper Rule. No lead service lines have been identified in any of the inspections completed to date.

Neptune MACH 10 Warrantee
We've received several questions about the expected service life and warranty of the new Neptune MACH 10 residential water meters. Below is a brief overview.

The Neptune MACH 10 is designed with a 20-year battery life. The battery is permanently sealed inside the meter to protect it from moisture and the environment. Because the battery is not replaceable, the meter is typically replaced at the end of its service life.

Neptune provides one of the strongest warranties in the water utility industry:

- 20-year warranty on the bronze meter body.
- 20-year warranty on the electronics, including the battery, with prorated coverage after the first 10 years.

For qualifying warranty claims:

- Years 1–10: 100% replacement coverage.
- Years 11–20: Prorated replacement coverage, with the percentage gradually decreasing over time.

Marco Island's climate is also favorable for meter longevity. Unlike colder climates, our community does not experience freeze/thaw cycles that can damage water meters. Under normal operating conditions, residents can expect these meters to provide accurate, reliable service for approximately 20 years.

In addition to improved accuracy and reliability, the new AMI system allows customers to monitor their water usage, receive leak alerts, and identify unusual consumption through the City's AMI Customer Portal.

If you haven't already registered, we encourage you to sign up for the City's AMI Customer Portal and take advantage of these valuable features to better manage your water use.

North Water Treatment Plant (NWTP) Membranes Replacement

The North Water Treatment Plant (NWTP) treats raw surface water from the Source Water Facility using lime softening and microfiltration, supplying approximately 70% of Marco Island's drinking water demand. The microfiltration (MF) system utilizes hollow-fiber membrane modules to remove turbidity, bacteria, Cryptosporidium, Giardia, and other contaminants, providing a critical barrier to ensure safe, high-quality drinking water.

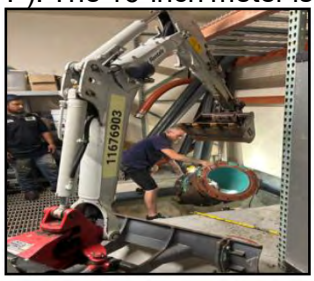
The NWTP MF system consists of six membrane racks, each containing 72 membrane modules. As part of normal operation, the membranes gradually accumulate fouling and must be replaced approximately every 8 to 10 years to maintain treatment performance and reliability. Funding for this planned asset replacement is included annually in the Water & Sewer Capital Improvement Program (CIP). At its February 2 meeting, the City Council authorized the purchase of 144 replacement membrane modules—enough to replace two membrane racks, at a total cost of $531,026.61.

The new membranes were delivered and successfully installed in mid-June. The replacement effort included flushing the rack headers, preparing and staging materials, disconnecting existing couplings and hoses, removing the old membrane modules, installing the new modules, reconnecting and tightening fittings, flushing the new membranes, resolving minor leaks, and restoring the work areas.

The project was completed over two days by nine Water & Sewer staff members, who contributed a combined 144 labor hours. Vendor representatives were onsite throughout the installation and remained for several days afterward to assist with startup, troubleshooting, system optimization, and final performance verification. The replacement was completed successfully, and the new membrane racks are now fully operational, helping ensure the continued reliability and efficiency of the City's drinking water treatment process.

South Water Treatment Plant Flow Meter Replacement

The Water & Sewer Management Team would like to recognize the Maintenance Team for their outstanding work on July 9, 2026, during the successful replacement of the 16-inch permeate flow meter at the South Water Treatment Plant (SWTP). The 16-inch meter is located inside a confined trench beneath an interior concrete wall, making the replacement a challenging task. Despite the difficult working conditions, the team safely removed the existing meter and installed the new one with exceptional precision, avoiding any damage to the existing piping and preventing potential leaks.



This successful effort was the result of thorough planning, coordination, and preparation. The crew arrived fully equipped with the necessary tools and resources to complete the work safely and efficiently. Although a temporary shutdown was required during the replacement, the operation was executed so smoothly that there was no impact on water production or water loss.

The Biologically Active Filter (BAF) Improvements

The Construction of the Biologically Active Filter (BAF) Improvements Project continues to progress well, remains on schedule and within the approve budget.

The contractor has completed installation of all overhead process piping, the control panel for the new blower, and the new backwash pump. The fiber optic upgrade has also been completed, including the removal of the existing fiber optic cables and installation of a new fiber optic network and communications rack. This modernization will improve the facility's communications, control, and system reliability.

Electrical work is approximately 90% complete, with the remaining work consisting primarily of equipment testing, startup, and commissioning. One of the two new 200-horsepower vertical turbine transfer pumps has been installed. In addition, both new biologically active filter vessels have been installed, along with the associated air piping system and filter media. Painting of the filter vessels and associated piping is scheduled to begin next week.

The project is expected to enter the testing, startup, commissioning, and operator training phase by the end of August 2026, keeping the project on track for successful completion.

Demand-Driven Increase in South Water Treatment Plant Electrical Costs

The South Water Treatment Plant (SWTP) utilizes a reverse osmosis (RO) treatment process to convert brackish groundwater into potable water. Reverse osmosis is an energy-intensive treatment process that uses high-pressure pumps to force water through specialized membranes, resulting in significantly higher electrical consumption than conventional treatment methods.

To minimize operating costs, the City operates the North Water Treatment Plant (NWTP) as the primary production facility at approximately 6.2 to 6.5 million gallons per day (MGD), with the SWTP serving as a peaking facility to meet higher system demands or to maintain water service when the NWTP is temporarily offline for maintenance or unexpected outages.

Over the past 12 months, the SWTP produced approximately 10% more potable water than anticipated. The additional production increased both energy consumption and utility demand charges, resulting in electrical costs that exceeded the FY26 budget. As a result, the SWTP's FY26 electrical budget of $1,392,000 is projected to be approximately $240,000 short, representing an increase of about 17% over the budgeted amount.

At the August 17 City Council meeting, staff will request a budget amendment of $240,000 to cover the South Water Treatment Plant's projected electrical costs through the remainder of FY26. The increased operating costs have already been incorporated into the proposed FY27 operating budget to better align future appropriations with anticipated water production and associated electrical demand.

CITY OF MARCO ISLAND

WATER & SEWER FLASH REPORT

UNAUDITED- WITHOUT ENCUMBRANCES

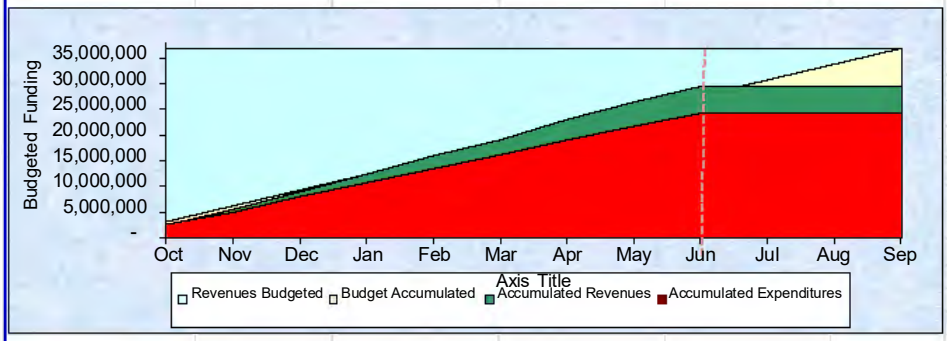
Last Month of the Reporting Period:	**June-26**
Percentage of Year Completed:	**75.0%**

WATER & SEWER FUNDS

Utility Fund	REVISED BUDGET	BUDGET YTD	Actual YTD	ACTUAL OVER/UNDER YTD BUDGET	Percent Spent YTD
Revenues - Operations	36,786,583	27,589,937	**29,415,713**	1,825,775	80%
Expenditures					
Operations	36,786,583	27,589,937	**25,914,898**	(1,675,040)	70%

WATER & SEWERS EXPENSES

Departments	REVISED BUDGET	Total Spending Difference	Percent Spending	Actual YTD	Budgeted Overtime	Overtime YTD	Percent Overtime Spent
NWTP	**4,000,374**	**1,201,261**	**70.0%**	**2,799,113**	60,000	42,763	71%
SWTP	**3,107,673**	**875,622**	**71.8%**	**2,232,052**	40,000	20,062	50%
RWPF	**3,610,888**	**1,647,465**	**54.4%**	**1,963,423**	45,000	26,263	58%
C&D	**2,924,160**	**788,037**	**73.1%**	**2,136,124**	70,000	63,995	91%
Maintenance	**1,974,549**	**643,796**	**67.4%**	**1,330,753**	95,000	88,894	94%
Administration	**17,870,773**	**4,806,097**	**73.1%**	**13,064,676**	3,000	1,170	39%
Customer Service	**1,098,166**	**359,408**	**67.3%**	**738,758**	20,000	15,650	78%
Transfers	**2,200,000**	**550,000**	**75.0%**	**1,650,000**	NA	NA	NA.
	36,786,583	**10,871,685**	**70.4%**	**25,914,898**	**333,000**	**258,798**	**78%**



Water Service Interruptions with Boil Water Notice (BWN)			
Month	Number of Service Calls Resulting in a BWN	Number of Customers	Large Interuptions 50 Customer or More
July-25	3	367	Smokehouse Bay-349
Aug-25	3	291	Smokehouse Bay, Sandollar, Westview
Sept-25	6	236	Court Yard Towers-12
Oct-25	7	216	
Nov-25	2	84	667 Thrush Ct.
Dec-25	4	760	Cape Marco 733
Jan-26	7	556	132 Gulfstream,280 S. Collier, 600 S. Collier
Feb-26	2	256	52 Habitat, 204 Tradewinds
March-26	6	627	TradeWinds-204,MarcoVillas-80,Eagles Nest-96(Twice),719 Barfield-119
April-26	8	681	Plantation 79, Stevens Landing 72, 890 S. Collier 96, 999 Anglers Cove 320
May-26	4	1148	Somerset of Marco, 122, 780 S. Collier. Marriot,729, 400 S. Collier, Gulfview, 58 N. Collier, 265 units
June 26	11	1146	The Prince 99, Seaview 419, Sandpeper 72, Habitat 52, 356 Heathwood 87, Seagrape 67, Seadune 856, Peru 268,

Treatment Plant Data

Starting Date: **5/1/2026**

Ending Date: **5/31/2026**

Rain Fall for Time Period **4.10** Inches

Average **D**aily **F**low (ADF)

Million **G**allons per **D**ay (MGD)

"U" Undetected - results below detection limit

Aquifer Storage & Recovery

ASR - Injection Avg. Daily Flow	**0.00** MGD	May-26
ASR - Recovery Avg. Daily Flow	**3.96** MGD	

Marco Island Drinking Water

		Max Day	Max Day	Flow
Combined Consumer ADF	**10.42** MGD	5/11/2026	**12.16**	MGD
NWTP Consumer ADF	**4.02** MGD	5/16/2026	**4.67**	MGD
SWTP Consumer ADF	**6.40** MGD	5/13/2026	**7.87**	MGD

Finished Water Testing

Minimum Chlorine Residual **3.40** mg/L

	Maximum	Minimum			Maximum	Minimum	
Turbidity	**0.01**	**0.01**	NTU	Chlorides	**147**	**128**	mg/L
Total Dissolved Solids	**296.00**	**242.00**	mg/L	Color	**3**	**1**	mg/L
P-Alkalinity	**10.00**	**4.00**	mg/L	Phosphate	**0.9**	**0.05**	mg/L
M-Alkalinity	**50.00**	**19.00**	mg/L	Ammonia	**0.9**	**0.64**	mg/L
Cal-Hardness	**104.00**	**70.00**	mg/L	Aluminum	**0.08**	**0.02**	mg/L
Total Hardness	**138.00**	**102.00**	mg/L	pH	**887**	**8.66**	SU

May-26 Wastewater - RWPF

	Average Flow		Monthly Max Day			Monthly Testing Influent	Effluent	
Influent	**1.98**	MGD	**5/24/2026**	**2.43**	BOD	**136**	**1.90**	**mg/L**
Reuse	**1.83**	MGD	**5/1/2026**	**2.13**	TSS	**193**	**1.9**	**mg/L**
Deep Well	**0.135**	MGD	**5/23/2026**	**0.83**	Total N	**NA**	**7.07**	**mg/L**
					Total P	**4.3**	**4.2**	**mg/L**