



City of Marco Island

Meeting Date: August 4, 2025

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 W&S Department is operating within the approved budget. Below is a summary of department activities during the past month.

ANNUAL TEMPORARY MODIFICATION TO THE DISINFECTION PROCESS

The City of Marco Island will conduct its annual temporary modification to the potable (drinking) water disinfection process for the Marco Island and Marco Shores service areas. This change will take place from September 1 through September 30, 2025.

During this period, the City will use free chlorine instead of the usual chloramine (a combination of chlorine and ammonia) to disinfect the water supply. This temporary switch to free chlorine — a more potent disinfectant — is part of a routine system maintenance program recommended by the Florida Department of Environmental Protection. The process helps to cleanse the water distribution system and maintain high water quality standards for our community.

The conversion to free chlorine will begin on September 1, 2025.

South Water Treatment Plant (SWTP) West High Service Pump Station (HSPS)

A time-only change order has been issued for the South Water Treatment Plant (SWTP) West High Service Pump Station (HSPS) project to extend the contract duration and account for delays experienced during construction. Work was temporarily stalled due to two main issues: a surge in demand for split-face concrete block, which delayed delivery and impacted the construction of the pumphouse walls, and a complication with the roof joists that required coordination between the contractor and the engineer to resolve. These challenges have since been addressed. The block has been delivered, and the walls have been successfully erected. The roof joist issue has been resolved, and the contractor is now waiting for additional materials to complete the joist installation.



Roof installation is scheduled to be completed by mid-August. Once the roof is in place, installation of electrical equipment will begin later that month. At the same time, bacteriological testing of the newly installed water lines will be conducted, with results submitted to the Florida Department of Environmental Protection (FDEP) for approval to connect the new infrastructure to the existing mains. This final connection will require a planned shutdown of the plant. Based on the current schedule, the overall project is now expected to be completed by mid-December 2025.

Collection and Distribution (C&D) Building

Work on the C&D Buildings is nearing completion. The contractor is working on completing minor details and obtaining passing inspections. Certificates of occupancy for the two structures are expected to be issued by the end of July. The architect and engineers are scheduled to perform inspections of the work in the last week in July to issue the certificate of substantial completion. Delivery and installation of furniture has been scheduled for the first week in August.

The staff are excited about moving into the new building. A ribbon cutting is planned for mid-August.



North Marco Main Improvements

The City of Marco Island is undertaking a critical infrastructure upgrade to improve water distribution and fire protection in the North Marco area. The existing water system in this region currently consists of a mix of 4-inch and 8-inch asbestos cement (AC) pipes.

This project will include the following improvements:

- Replacement of the existing 8-inch AC main along Bald Eagle Drive, extending from Tampa Place to Palm Street, with new piping.
- Installation of a new 10-inch PVC water main to replace the aging 4-inch AC mains on Tampa Place and Kerr Court.
- Creation of a closed-loop system, significantly enhancing water circulation and capacity for fire flow across the area



The City of Marco Island is currently working with the contractor to ensure that the city can source all the materials and permits for the job with a tentative fall start date.

SWTP Odor Control Rehabilitation Project

The SWTP Odor Control System consists of two degassifier towers and a scrubber tower which were installed in 1998. The internal support inside the south tower failed in 2024, which resulted in an emergency repair and shutdown of the plant for 24 hours. To prevent another such emergency and shutdown, a contract for fully rehabilitating the system was bid and the contract was awarded by the City Council in June.

Work on the Odor Control Rehab project started in July. Staff are currently in the process of reviewing shop drawings and the contractor has started removing the acoustic walls, filter media, platforms, and supports. The work is scheduled to be completed in mid-December.



Annex 2nd Floor Reconfiguration (Annex)

The Annex 2nd Floor Reconfiguration Project is transforming the second floor of the City's Annex Building into the new administrative headquarters for the Water and Sewer Department (W&SD). The redesigned layout includes nine offices, three bathrooms, a kitchenette, and a combined training and conference room. The project was awarded through a public bidding process and

approved by the City Council on July 24, 2023. Demolition began in November 2023 following permit issuance and is now nearly complete.

During the building permit review, the Fire Marshall required significant modifications to the existing stairwell, leading to design changes involving a load-bearing wall. These revisions caused delays, increased design efforts, and resulted in a \$193,421 change order.

An emergency generator was originally included in the design but removed during bidding after the State was awarded a grant requiring the generator to be handled as a separate project. However, the corresponding addendum also eliminated the generator's switchgear without providing an alternative solution. The contractor has now submitted a change order to reinstall the switchgear as originally planned. This change order also includes costs for work previously completed without prior approval or submitted proposals. Staff are currently reviewing the contractor's submittal, and any items not denied, along with the switchgear addition, which will be presented to City Council for consideration in August 2025.

Manhole Rehabilitation Project FY2025

The FY2025 Manhole Rehabilitation Project involves the repair and structural lining of existing sanitary sewer manholes located throughout Marco Island, Florida. Work will take place along Marco Lake Drive, Front Street, 1st Avenue, 2nd Avenue, 3rd Avenue, Quail Drive, 5th Avenue, 6th Avenue, and Nassau Court.

A total of 35 manholes, each 4 feet in diameter, will be rehabilitated to address structural wear, prevent infiltration, and improve the overall reliability of the sewer system. Repairs will be made as needed based on field conditions

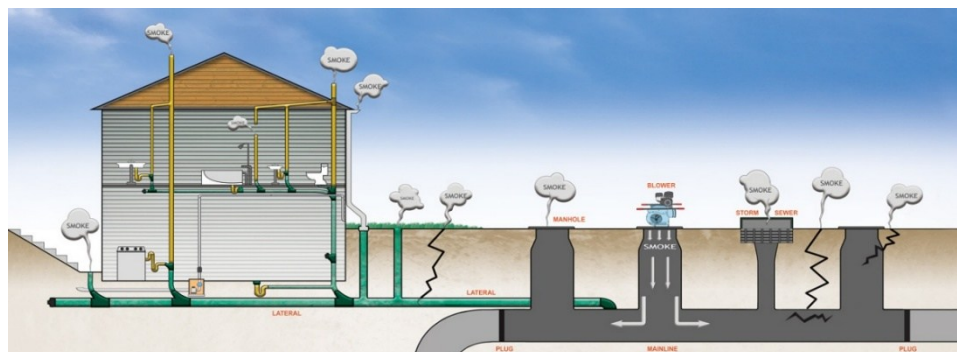


This project is underway and is expected to be completed by September 2025

Smoke Testing of the City's Sanitary Sewer Collection System

As part of its ongoing infrastructure maintenance program, the Water & Sewer (W&S) Department routinely conducts smoke testing on the City's gravity sanitary sewer collection system. This test is scheduled every five years and is designed to assess the condition and integrity of the system. The City Council approved funding for this project in July. Water and Sewer department is currently working to set up a kickoff meeting with a tentative late August start.

Smoke testing is a widely accepted, cost-effective, and non-invasive method used to identify defects and potential sources of inflow and infiltration (I&I) in gravity-fed sanitary sewer systems. I&I can significantly impact system efficiency and lead to sanitary sewer overflows, increased treatment costs, and damage to public and private property.



Water Service Interruptions with Boil Water Notice (BWN)			
Month	Number of Service Calls Resulting in a BWN	Number of Customer s	Large Interruptions 50 Customer or More
July-24	4	170	San Marco Villas-65
Aug-24	0	0	****NOTE NO PRECAUTIONARY
Sept-24	4	307	Marco Villas-68 Twice, and Seabreeze 120
Oct-24	5	320	Aquarius 50, Marco Villas-68, 6000
Nov-24	6	383	6000 Royal marco Way-78, Tradewinds- 204
Dec-24	3	160	1771 Mainsail 100, 901 South Collier 52.
Jan-25	3	66	
Feb-25	2	40	
March-25	0	0	****NO PRECAUTIONARY BOIL WATER NOTICES- MARCH
April-25	1	72	72 units at Stevens Landing
May-25	3	32	Town Center-7 Units
June-25	3	37	



Treatment Plant Data							
Starting Date:		5/1/2025		Rain Fall for Time Period		1.50 Inches	
Ending Date:		5/31/2025		Average Daily Flow (ADF) Million Gallons per Day (MGD) "U" Undetected - results below detection limit			
Aquifer Storage & Recovery							
ASR - Injection Avg. Daily Flow		0.00 MGD					
ASR - Recovery Avg. Daily Flow		4.05 MGD					
Marco Island Drinking Water							
				Max Day	Max Day	Flow	
Combined Consumer ADF		11.38 MGD		5/24/2025	12.69	MGD	
NWTP Consumer ADF		4.12 MGD		5/24/2025	4.60	MGD	
SWTP Consumer ADF		7.26 MGD		5/26/2025	8.21	MGD	
Finished Water Testing							
Minimum Chlorine Residual		3.50 mg/L					
		Maximum	Minimum		Maximum	Minimum	
Turbidity	0.01	0.01	NTU	Chlorides	134	118	mg/L
Total Dissolved Solids	286.00	28.00	mg/L	Color	8	1	mg/L
P-Alkalinity	8.00	4.00	mg/L	Phosphate	0.74	0.13	mg/L
M-Alkalinity	37.00	29.00	mg/L	Ammonia	0.88	0.66	mg/L
Cal-Hardness	88.00	74.00	mg/L	Aluminum	0.07	0.02	mg/L
Total Hardness	120.00	100.00	mg/L	pH	10.05	7.3	SU
May-25 Wastewater - RWPF				Monthly Testing			
Average Flow		Monthly Max Day		Influent		Effluent	
Influent	1.90 MGD	5/24/2025	2.13	BOD	449	6.78	mg/L
Reuse	2.07 MGD	5/27/2025	2.75	TSS	210.5	1	mg/L
Deep Well	0.03 MGD	5/12/2025	0.61	Total N	NA	6.2	mg/L
				Total P	4.83	4.35	mg/L