



City of Marco Island

Meeting Date: February 2, 2026

To: City Council

From: Jeffrey E. Poteet, General Manager- Water & Sewer

Through: Casey Lucius, Interim 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.

Update - Advanced Metering Infrastructure (AMI)

The AMI project is progressing well and remains on schedule. Routes 6919, 6920, 6921, 6922, and 6923 on the east side of Marco Island, near the Jolley Bridge, have been completed. The contractor will continue replacing meters along the east side of N. Barfield Drive and will subsequently proceed to Goodland.

To date, 277 meters have been replaced. City staff is working with the vendor to establish customer access to the smart meter portal and expects this feature to be available soon. The team is currently integrating the required software to support this functionality.

The Lead and Copper survey is being conducted on both the customer and utility sides of the water service lines as meters are replaced. The project remains on schedule to identify all unknown service lines on Marco Island and Marco Shores by Fall 2026.



Caught in the Act

Heather Smith is being recognized with the Caught in the Act Award for going above and beyond during an emergency power outage at the South Water Treatment Plant (SWTP) on Christmas Day.

When SWTP lost power and the generator did not transfer to emergency power, Heather stepped in to support the response while her supervisor was on vacation. After being contacted on Christmas evening, she immediately reached out to vendors and



coordinated a joint site inspection with LCEC, Eaton, and GenServe to quickly identify and resolve issues with the generator, breaker, and power supply.

Heather's prompt action, professionalism, and willingness to respond on a holiday were critical to restoring power and ensuring uninterrupted service to the community. For her exceptional dedication beyond her normal responsibilities, Heather Smith is recognized with the Caught in the Act Award.

Advanced Wastewater Treatment Evaluation Process

At the direction of City Council, staff initiated a professional engineering study to evaluate the feasibility and cost of upgrading the City's Reclaimed Water Production Facility (RWPF) to meet Advanced Wastewater Treatment (AWT) standards, as defined under the Grizzle-Figg statute. This effort is focused solely on information gathering; specifically assessing what treatment processes would be required, how they could be integrated within the existing site, and estimating both capital and operational costs. The evaluation, being conducted by Black & Veatch (BV), is currently underway.

The consultant has completed the initial facility evaluation and is continuing to work on reviewing applicable regulatory requirements while modeling and analyzing potential advanced treatment alternatives. At the City's request, the consultant accelerated the project schedule. As a result, the draft assessment report is expected to be delivered by February 27, 2026, with the final report scheduled for completion by March 27, 2026.

The goal of this study is to provide City Council and the community with reliable, engineering-based information to support future policy decisions. This evaluation does not commit the City to design, permitting, or construction. Should City Council choose to proceed with implementing AWT following the study, the following steps would be necessary:

1. Procurement of Engineering Design Services (RFQ Process)

In accordance with Florida's Consultants' Competitive Negotiation Act (CCNA), detailed engineering services must be secured through a formal Request for Qualifications (RFQ). Due to the anticipated scope and scale of this project, a project-specific RFQ would be required, rather than using firms from the City's existing continuing services contract. This process alone would add several months to the overall timeline.

2. Project Funding Identification

Before advancing to design and permitting, a funding strategy must be developed. This may include utility reserves, adjustments to existing water and sewer rates, and/or the issuance of a revenue bond. To support this step, a revenue sufficiency study will be necessary to determine the financial capability of the utility system to support this investment, both in the short and long term.

3. Design and Permitting

Once a consultant is selected, they will develop detailed engineering plans and coordinate with regulatory agencies, primarily the Florida Department of Environmental Protection (FDEP) to secure the necessary permits for construction and operation.

4. Supplemental Funding and Grant Opportunities

In parallel with the design process, staff would aggressively pursue grant opportunities and other external funding sources to reduce the financial burden on ratepayers. Potential funding programs may include:

- FDEP Clean Water State Revolving Fund
- South Florida Water Management District Cooperative Funding
- State or federal nutrient reduction grants
- Innovative technology funding programs, depending on the selected treatment approach

5. Construction Procurement and Implementation

After finalizing design and securing funding, the City would advertise the project for construction bids. Upon Council's approval and contract award, construction would commence, followed by system testing, commissioning, and operational startup.

6. Transition to AWT Compliance

After successful startup and validation of performance, the RWPF would be certified as meeting AWT standards under the Grizzle-Figg statute. Ongoing operations and maintenance would then reflect the upgraded treatment processes.

As previously reported to City Council, the City's consultant had trouble connecting with representatives from NuQuatic. Members of Clean Marco Waters provided staff with contact information of Don Luke, who was identified as a Florida contact for NuQuatic. Black & Veatch spoke with Don Luke regarding NuQuatic, and the following information was provided by Don Luke:

- that he is retired and no longer affiliated with NuQuatic. He stated the company has relocated to Michigan.
- indicated that he and Dr. Carlo Borras were involved in development of NuQuatic's phosphorus and ammonia (NH_4) treatment approach.
- stated NuQuatic is no longer in the business of designing and constructing nutrient removal systems but may be willing to license their technology.
- that he will provide contact information for NuQuatic's current representative, Mr. Cramer, who he identified as the appropriate point of contact moving forward.
- indicated NuQuatic may retain him as a consultant to help provide technical information and potentially present an overview of their process.
- described the process as using elemental aluminum for phosphorus removal and a galvanic cell process intended to convert ammonia to nitrogen gas (N_2). He noted additional review may be needed regarding how the ammonia-related portion would integrate with treatment operations.

In summary, the City is in the evaluation phase only, as directed by City Council. No decision has been made regarding the implementation of AWT. The results of the Black & Veatch study, expected in spring 2026, will provide the data necessary for Council to assess whether an AWT upgrade is appropriate, beneficial, and financially viable. Staff remain committed to providing transparent, technically sound information to support Council's policy decisions and long-term planning for Marco Island's water and environmental future.

Update on Clean Marco Waters, LLC Petition for Administrative Hearing

On November 14, 2025, Clean Marco Waters, LLC filed a Petition for Administrative Hearing with FDEP challenging the City's renewed wastewater treatment plant permit (Permit No. FLA014167-027-DW1P). After FDEP dismissed the original petition with leave to amend on December 9, 2025, Clean Marco Waters filed an Amended Petition on December 11, 2025.

Since the last report to Council, FDEP has formally referred the case to the Division of Administrative Hearings (DOAH) for further proceedings under Chapter 120, Florida Statutes. The referral identifies OGC Case No. 25-2046 and confirms the parties and representatives, including FDEP litigation counsel.

The City will continue coordinating with the City Attorney and FDEP/DOAH and will provide updates as the administrative process moves forward. The City's renewed permit remains valid and in effect, and operations continue in compliance with all permit conditions.

Grease Damage Prevention Program

The City's Grease Damage Prevention (GDP) program, established in Sections 52-122 through 52-131 of the City Code, protects the wastewater collection system from fats, oils, and grease (FOG) discharged by food service facilities (FSFs). FOG hardens inside sewer pipes and can cause blockages, backups, and overflows that threaten public health, damage City infrastructure, and impact local waterways.

To ensure compliance, FSFs must submit a no-cost annual permit application by November 1, documenting their grease control equipment and required pumping/cleaning activity; permits are issued when requirements are met.



There are 105 active FSFs in the Water and Sewer District (Marco Island, Isles of Capri, and Marco Shores), while Goodland FSFs are on septic and regulated by the Florida Department of Health. For the 2025 renewal cycle, 12 facilities missed the deadline, and 10 facilities were found non-compliant with pumping/cleaning requirements; after notices and follow-up, four delinquent facilities remain out of compliance and may be assessed an increased fee if not corrected by February 1, 2026.



The program also includes registration of grease haulers, with 11 registered companies operating 27 pumper trucks, and new FDEP rules effective December 7, 2025, which now require disposal manifests, which will be incorporated into the GDP permit process.

North Water Treatment Plant (NWTP) Lime Sludge Press

The NWTP uses lime to remove hardness from raw surface water, producing a lime slurry that is normally dewatered using the lime sludge filter press. Dewatering reduces disposal volume and lowers hauling costs.



The existing press (installed in 2004 and purchased used) is scheduled for replacement. City Council approved purchase of a new unit in December 2025, with delivery and commissioning expected in approximately 10–12 months.

On January 2, 2026, the existing press was taken out of service for planned preventive maintenance to keep it operational until the new press is installed. Work included hydraulic ram

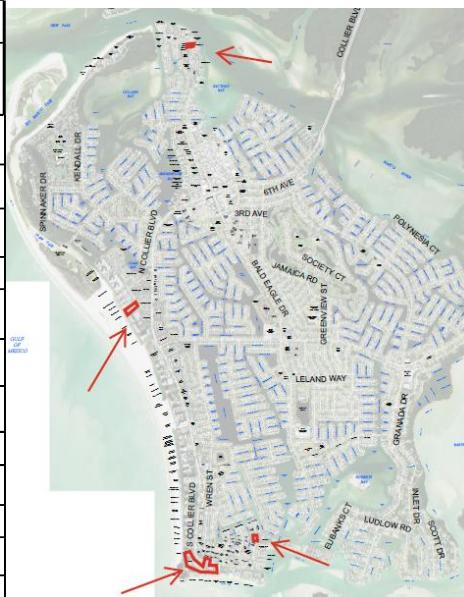
repairs, corrosion removal and recoating, and replacement of filter plates. This maintenance was originally expected to take 7–10 days. During the outage, slurry was temporarily stored in the process backwash pond.

During maintenance, the hydraulic ram was found to be severely corroded, extending repair time and causing the backwash pond to reach capacity. To avoid a plant shutdown, staff arranged five days of liquid sludge hauling through the City's current vendor.

Normal hauling costs are approximately \$750 per load for dewatered sludge at 65% solids. Liquid sludge hauling is estimated at \$1,210 per load (approximately four loads per day), plus a \$3,600 mobilization/demobilization fee, for an estimated total cost of approximately \$25,000.

Press repairs have now been completed.

Water Service Interruptions with Boil Water Notice (BWN)			
Month	Number of Service Calls Resulting in a BWN	Number of Customers	Large Interruptions 50 Customer or More
Jan-25	3	66	
Feb-25	2	40	
March-25	0	0	NO PRECAUTIONARY BOIL WATER NOTICES
April-25	1	72	72 units at Stevens Landing
May-25	3	32	Town Center-7 Units
June-25	3	37	
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



Treatment Plant Data					
Starting Date:	11/1/2025	Rain Fall for Time Period	0.20	Inches	
Ending Date:	11/30/2025	Average Daily Flow (ADF)			
Aquifer Storage & Recovery		ASR - Injection Avg. Daily Flow	5.89	MGD	Nov-25
ASR - Recovery Avg. Daily Flow			0.00	MGD	"U" Undetected - results below detection limit
Marco Island Drinking Water					
Combined Consumer ADF	10.98	MGD	11/3/2025	11.94	MGD
NWTP Consumer ADF	3.79	MGD	11/8/2025	4.29	MGD
SWTP Consumer ADF	7.18	MGD	11/3/2025	7.80	MGD
Finished Water Testing					
Minimum Chlorine Residual 3.40 mg/L					
Maximum	0.01	Minimum		Maximum	Minimum
Turbidity		NTU	Chlorides	140	123 mg/L
Total Dissolved Solids	290.00	mg/L	Color	16	0 mg/L
P-Alkalinity	7.00	mg/L	Phosphate	1.17	0.58 mg/L
M-Alkalinity	42.00	mg/L	Ammonia	1.15	0.77 mg/L
Cal-Hardness	82.00	mg/L	Aluminum	0.11	0.05 mg/L
Total Hardness	108.00	mg/L	pH	8.9	8.76 SU
Nov-25 Wastewater - RWPF			Monthly Testing		
Average Flow		Monthly Max Day	Influent	Effluent	
Influent	2.15	MGD	11/18/2025	2.68	BOD 291.5 9.00 mg/L
Reuse	2.13	MGD	11/14/2025	2.53	TSS 194 0.6 U mg/L
Deep Well	0.017	MGD	11/28/2025	0.264	Total N NA 11.44 mg/L
				Total P	5.05 4.98 mg/L