City of Marco Island

Meeting Date:	October 7, 2024
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 Water and Sewer (W&S) department is operating within the approved budget. Below is a summary of department activities during the past month.

Progress Report: Collections & Distribution Building

The C&D Building construction is progressing smoothly, on time and on budget. Plumbing and electric lines were installed; the slab poured; the fire service line installed; and the exterior walls are nearly complete. Storm structures have been delivered to the site. Extension of a watermain as well as a new sanitary sewer lateral to serve the building will begin the first week in October.

Progress Report: Sanitary Sewer Manhole Rehabilitation Project

The City's Water and Sewer Department is undertaking a Manhole Rehabilitation Project beginning Sept.30. The project will focus on the repair and lining of existing sanitary sewer manholes located along N. Barbados Ave, Polynesia Ct., Meadowlark Ct, Rockhill Ct., Grapewood Ct., and Brianwood Ct. With a total of 38 manholes to be addressed, each approximately 4 ft in diameter and totaling 207 vertical feet. The rehabilitation process involves internal surface preparation through sandblasting and high-pressure washing, application of coatings to the inside walls and floor, and installation of sealing to mitigate inflow and infiltration into the sanitary sewer system. the contractor will start on Sept.30 through Nov.15, 2024. Work will take place between 7:00am and 3:00pm Monday – Friday. There will be no road closures, but there will be temporary lane closures on these streets shown on the map.

Progress Report: N. Collier Blvd Main Replacements at Bluebonnet Waterway

The first phase of the project on the southbound side of North Collier Blvd (at Bluebonnet Way) has been completed. The second phase of the project on the northbound side of North Collier Blvd will begin on Sept 30. During this phase, the city will upgrade the existing 16-inch force main to a 20-inch main to improve the efficiency and reliability of the system. The force main installation will be carried out using a directional drill, which will install the force main pipe under Bluebonnet Waterway. The directional drill entry/exit pits will be placed in the right of way of N. Collier Blvd at Caribbean Court and Amazon Court. The outside northbound lane between Amazon Court and Caribbean Court will be closed, in addition, to Amazon Court. Century Drive will stay closed from N. Collier Blvd for the duration of the project. MOT is shown below. The project remains on schedule and within the approved budget.

Understanding the City of Marco Island's Drinking Water Treatment and Color

The City of Marco Island's primary drinking water source is surface water, which is treated using lime softening to meet about 70% of the community's potable water needs. The remaining 30% is supplied through the treatment of brackish groundwater. Both sources naturally contain a slight color tint.

To ensure high-quality drinking water, the City employs two treatment processes: lime softening for surface water and high-pressure reverse osmosis (RO) for brackish groundwater. Both methods reduce the water's color, but the RO process is significantly more effective. The lime softening process typically results in finished water with an average of 7 color units, while the RO-treated water averages 3-4 color units (the secondary standard for color is 15 units).

This color, which may appear as a faint yellow tint, is most noticeable in large volumes of water against light-colored backgrounds, such as in toilets, bathtubs, or swimming pools. While the Water & Sewer Department continually optimizes the treatment process to minimize color, it is important to note that the color in the water is purely an aesthetic issue and poses no health risks.

The City of Marco Island's drinking water meets all applicable Federal and State safety standards and is perfectly safe to drink.

Water Service Interruptions with Boil Water Notice (BWN)			
Month	Number of Service Calls Resulting in a BWN	Numberof Customers Affected in the Month	Large Interuptions 50 Customer or More
Sept-23	5	378	1065 Borghese 123; 991 Barfield 60;1150 N. Collier 76;1310 Auburndale 52.
Oct.23	4	190	1065 Borghese 123.
Nov-23	2	52	
Dec-23	9	528	Seabreeze W. 70,Tradewinds-204
Jan-24	3	174	Marco Villas 95
Feb-24	0	0	
March-24	3	193	Royal Marco Way-112, Mainsail-80
April-24	5	290	Eagle Cay-126, Madeira-103
May-24	2	403	4 Condos
June-24	4	229	4000 Royal Marco Way-
July-24	4	170	San Marco Villas-65
Aug-24	0	0	****NOTE NO PRECAUTIONARY BOIL WATER NOTICES FOR AUG

No boil water map for this reporting period as there were no precautionary boil water notices during this reporting period.

Treatment Plant Data

Starting Date: **8/1/2024**
Ending Date: **8/31/2024**

Rain Fall for Time Period **13.10** Inches

Average Daily Flow (ADF)
Million Gallons per Day (MGD)
"U" Undetected - results below detection limit

Aquifer Storage & Recovery

ASR - Injection Avg. Daily Flow	**6.97** MGD	Aug-24
ASR - Recovery Avg. Daily Flow	**0.00** MGD	

Marco Island Drinking Water

		Max Day	Max Day	Flow
Combined Consumer ADF	**8.62** MGD	8/14/2024	**10.44**	MGD
NWTP Consumer ADF	**3.61** MGD	8/22/2024	**4.70**	MGD
SWTP Consumer ADF	**5.00** MGD	8/19/2024	**6.22**	MGD

Finished Water Testing

Minimum Chlorine Residual **2.50** mg/L

	Maximum	Minimum			Maximum	Minimum	
Turbidity	**1.00**	**0.01**	NTU	Chlorides	**103**	**83**	mg/L
Total Dissolved Solids	**341.00**	**162.00**	mg/L	Color	**10**	**0**	mg/L
P-Alkalinity	**8.00**	**3.00**	mg/L	Phosphate	**0.78**	**0.09**	mg/L
M-Alkalinity	**78.00**	**19.00**	mg/L	Ammonia	**1.09**	**0.26**	mg/L
Cal-Hardness	**84.00**	**32.00**	mg/L	Aluminum	**0.17**	**0.07**	mg/L
Total Hardness	**112.00**	**42.00**	mg/L	pH	**8.93**	**8.71**	SU

Aug-24 — Wastewater - RWPF

	Average Flow		Monthly Max Day			Monthly Testing Influent	Effluent	
nfluent	**2.37**	MGD	**8/4/2024**	**6.36**	BOD	**107.8**	**1.00**	**mg/L**
Reuse	**1.28**	MGD	**8/4/2024**	**3.72**	TSS	**97.5**	**0.8**	**mg/L**
Deep Well	**1.073**	MGD	**8/6/2024**	**3.577**	Total N	**NA**	**5.96**	**mg/L**
					Total P	**4**	**2.8**	**mg/L**