

Marco Island *Civic Association*



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May 21, 2024

Marco Island City Council
50 Bald Eagle Drive
Marco Island, FL 34145

Ruth McCann
Executive Director

Re: Upgrade the Marco Island Wastewater Treatment Plant (WWTP) to Advanced Wastewater Treatment (AWT)

Dear Councilors:

Oxygen is an essential component of the aquatic environment. The most important measurement of water quality, oxygen indicates a waterbody's state of health – that is, the ability to support aquatic life. Watersheds with oxygen concentrations of 5 milligrams per liter (mg/L) or higher can support well-balanced, healthy biological communities.

In August 2019 the average oxygen levels in the Marco waterways were a healthy 6.8 mg/L. By August 2023 the average oxygen levels had dropped to 2.4 mg/L, for a reduction of 65%. This was 52% lower than healthy levels.

Excess nutrients (phosphorus and nitrogen) delivered to a waterbody can lead to both overgrowth of algae and eutrophication. As dead algae decompose, oxygen is consumed in the process, resulting in low levels of oxygen in the water. Because there are increasingly more people living in coastal areas, there are more nutrients entering Florida's coastal waters from wastewater treatment facilities, runoff from land in urban areas during rains, and from farming.

The Collier County Pollution Control Department (PCD) recommendation 7.6 (FY22 Collier County Surface Water Report) states; "Reduction of nutrient pollution should remain a priority County-wide. Reducing nutrients at the source is more cost effective and efficient than restoring ecosystems after they have been impacted by nutrients. Source reduction strategies should be considered and include the following: require low impact development for new and redevelopment; agricultural operations (including golf courses) should be following assigned best management practices (BMPs) for their operations and verified that the BMPs being implemented are effective; permitted discharges not meeting water quality standards should be remediated; and **converting existing wastewater plants to advanced wastewater treatment (AWT) technologies.**"

The Marco Island Civic Association Board of Directors voted unanimously to encourage the Marco Island City Council to implement PCD recommendation 7.6 and upgrade the Marco Island Wastewater Treatment Plant (WWTP) to Advanced Wastewater Treatment (AWT), targeting the reduction of sewage reuse (reclaimed) water nutrients to current (2023) Limits of Technology (LOT) in order to eliminate this source of pollution going into the Marco waterways.

Sincerely,

Robert Brown
President