Marco Island, Florida

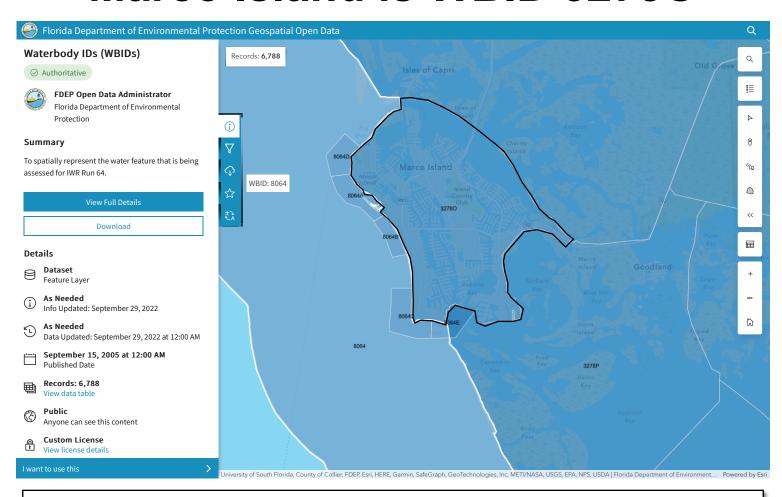
Water Quality Status & Trends

Key Parameters

2018 - 2024

Eugene Wordehoff June 2025

Marco Island is WBID 32780

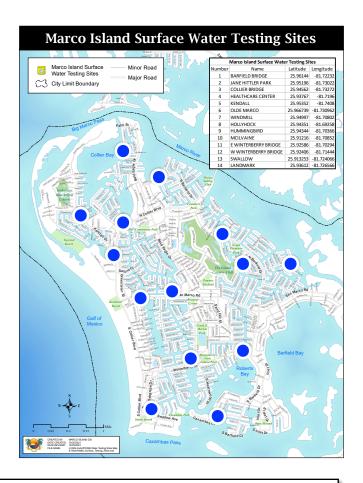


8 WBID surround Marco Island

18 Water Quality Sampling Locations

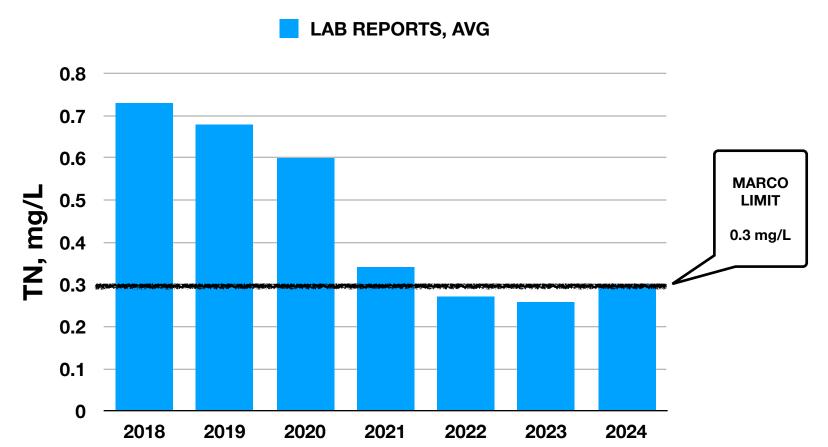


Site 1 – Marker 2 – N25* 58' 15" W81* 46' 17" Site 2 – Marker 4 – N25* 58' 26" W81* 45' 22" Site 3 – Marker 12 – N25* 58' 28" W81* 44' 06" Site 4 – Marker 3 – N25* 57' 58" W81* 41' 51"



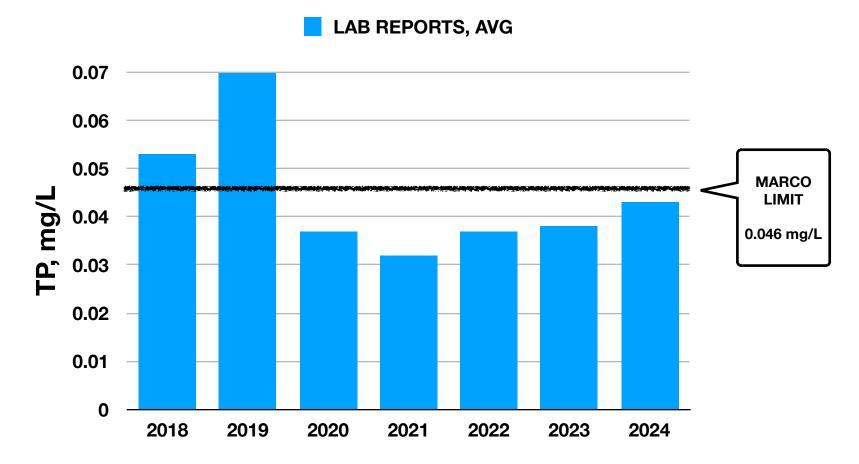
Water Quality Samples Taken Monthly

Marco Total Nitrogen (TN) Trend



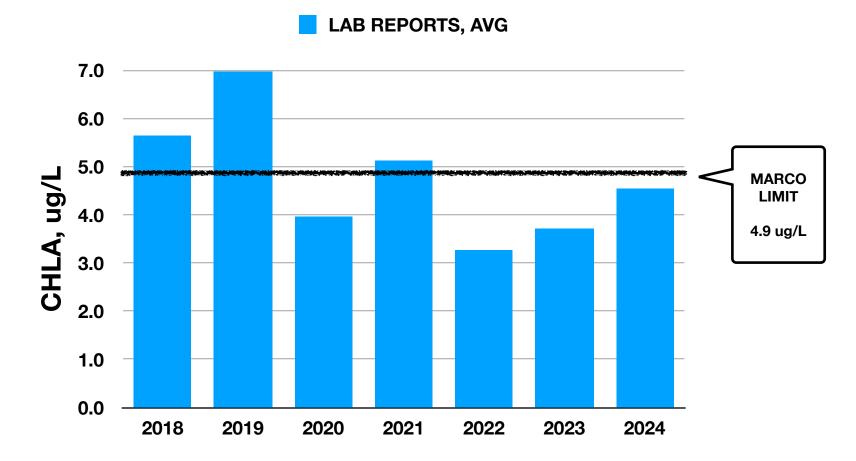
Nitrogen Below Limit - Stable

Marco Total Phosphorus (TP) Trend



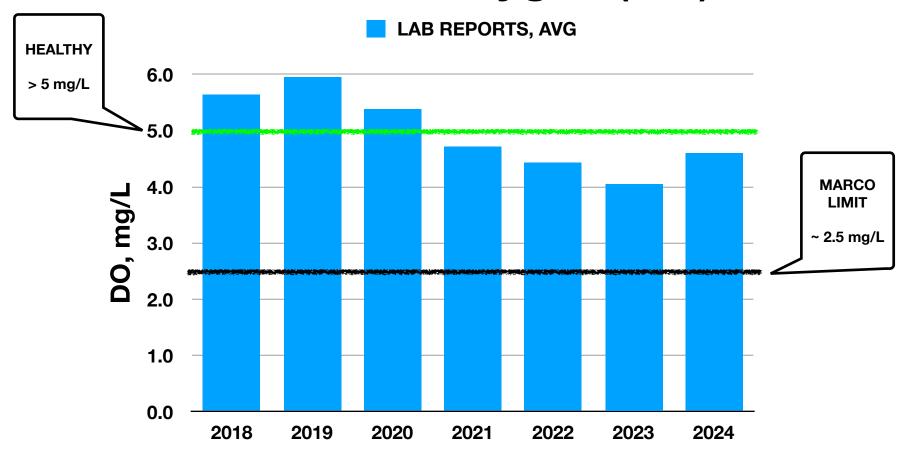
Phosphorus Below Limit - Increasing

Marco Chlorophyll a (CHLA) Trend



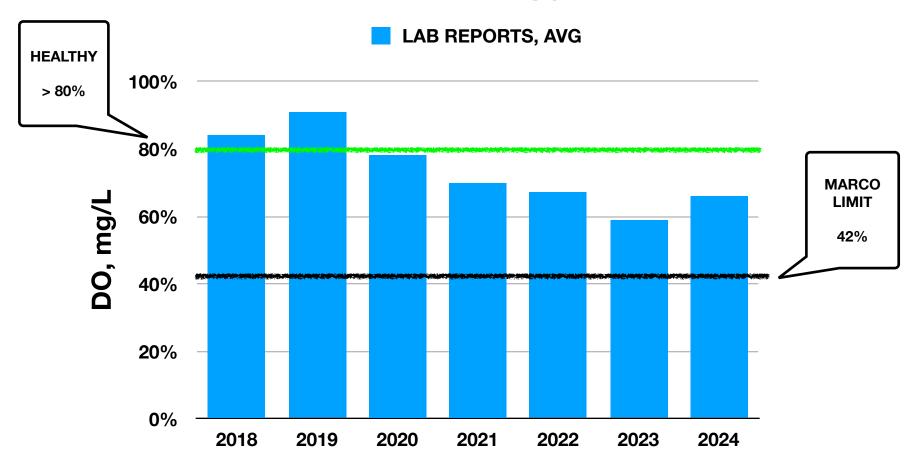
Chlorophyll Below Limit - Increasing

Marco Dissolved Oxygen (DO) Trend



Oxygen Above Limit - Decreasing

Marco DOSAT% Trend



Oxygen Above Limit - Decreasing

Marco Island FDEP "Master List"

Parameters Assessed Using the Impaired Surface Waters Rule (IWR)	Summary Assessment Status	Planning Period Assessment Data ⁵	Verified Period Assessment Data ⁵	Comments
Dissolved Oxygen (Trend)	Planning List	Insufficient Data	Impaired	This waterbody has sufficient data to meet the planning list requirements for this parameter based on a significant decreasing trend in dissolved oxygen levels or increasing trend in the range of daily dissolved oxygen fluctuations of the 90% confidence level using a one-sided Seasonal Kendall test for trends.
Nutrients (Total Nitrogen Trend)	Not Impaired	AGM 2015 (0.13 mg/L) 2016 (0.17 mg/L) 2017 (0.38 mg/L) 2018 (0.61 mg/L) 2019 (0.47 mg/L)	AGM 2015 (0.13 mg/L) 2016 (0.17 mg/L) 2017 (0.38 mg/L) 2018 (0.61 mg/L) 2019 (0.47 mg/L) 2020 (0.41 mg/L)	This waterbody is not impaired for this parameter based on having no statistically significant increasing trend at the 95% confidence level over the assessment period using a Mann's one-sided, uppertail test for trend.
Nutrients (Total Nitrogen)	Delist (Ongoing Restoration Activities)	ENRE3 (AGM) 2015 (0.13 mg/L) 2016 (0.17 mg/L) 2017 (0.38 mg/L) 2018 (0.61 mg/L) 2019 (0.47 mg/L)	ENRE3 (AGM) 2015 (0.13 mg/L) 2016 (0.17 mg/L) 2017 (0.38 mg/L) 2018 (0.61 mg/L) 2019 (0.47 mg/L) 2020 (0.41 mg/L) 2021 (0.22 mg/L)	This waterbody is impaired for this parameter because the annual geometric means exceeded the ENR criteria more than once in a three year period. However, this parameter is being added to the Study List because there are ongoing restoration activities to address the total nitrogen impairment documented in the Marco Island Pollutant Reduction Plan. This parameter is being removed from the Verified List but will remain on the 303(d) List.

Per FDEP - Oxygen <u>Trend</u> is Impaired

Marco Island, Florida

Water Quality Status & Trends

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