

“MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT”
Action Item Matrix Quarterly Progress Report

Second Quarterly Report, 2024
(January – March 2024)

Action Item:

4. Monitoring and Research

- a. Continue monthly monitoring for water quality of Wagner Creek, Miami River, and adjoining Biscayne Bay

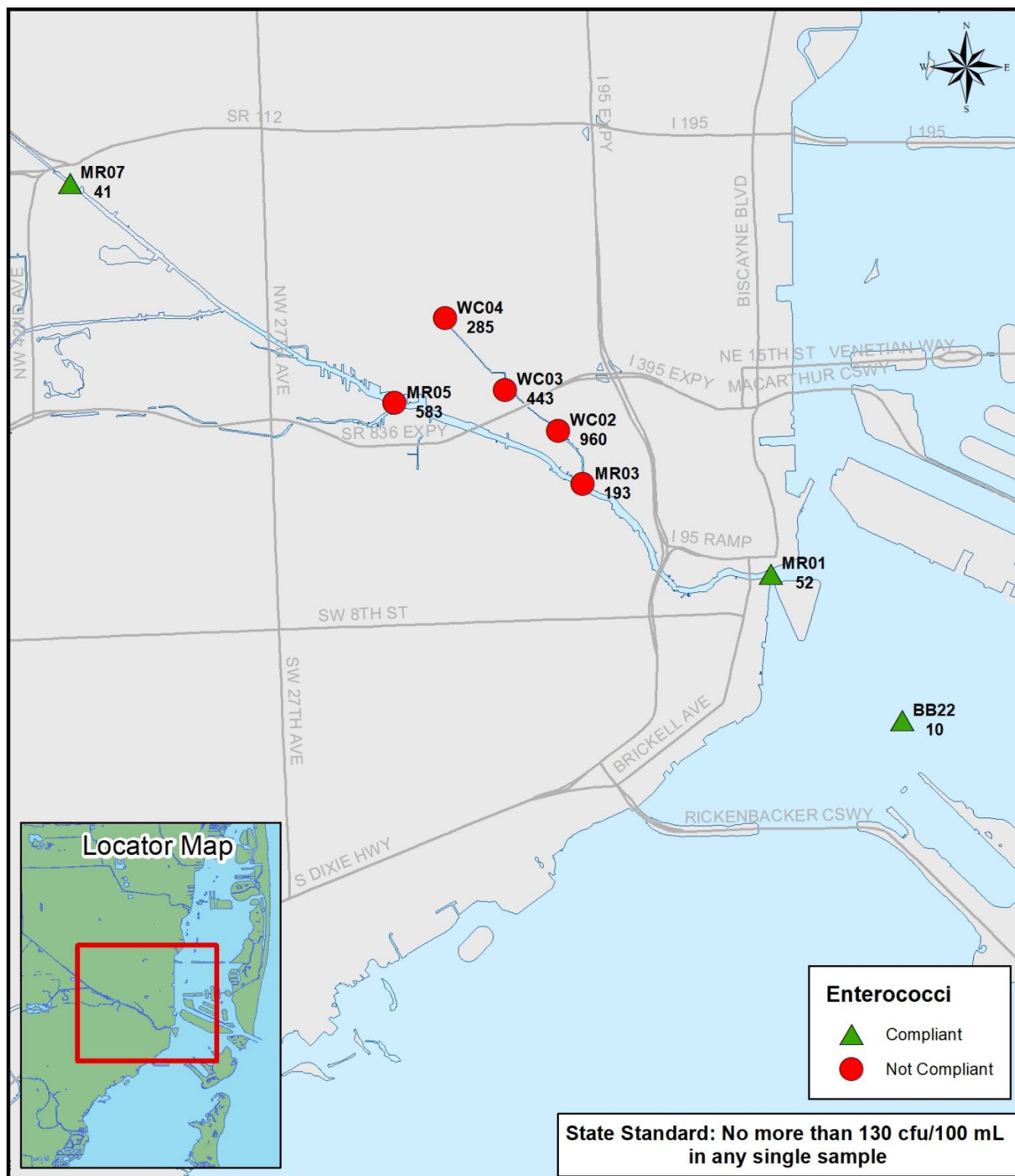
Lead Agency:	Miami-Dade County Regulatory and Economic Resources, Division of Environmental Resources Management (DERM)
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Action Item Status:

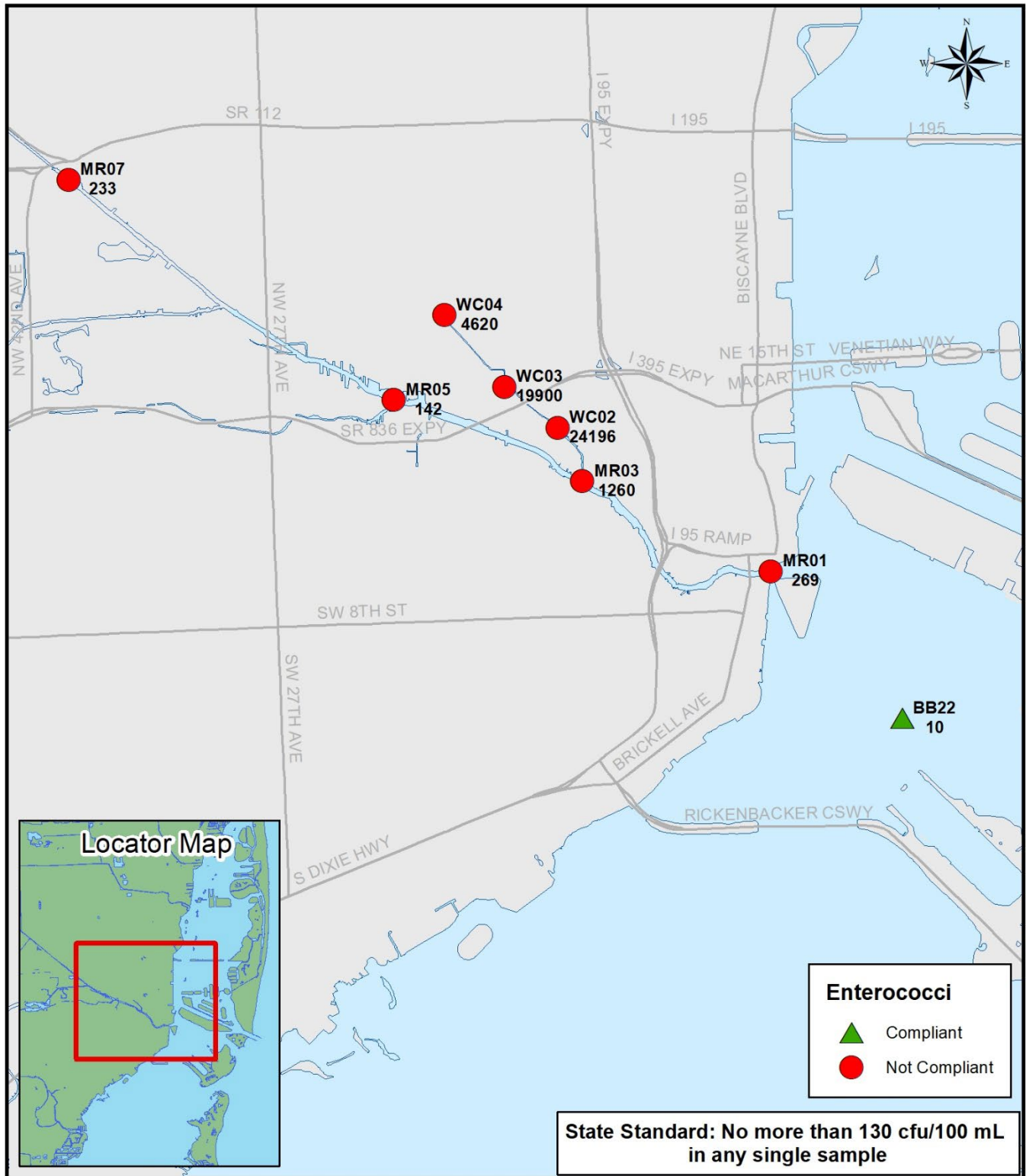
Miami-Dade DERM has continued to collect monthly water quality samples in the Miami River and its tributaries (including Tamiami Canal, Comfort Canal and Wagner Creek). Due to the time it takes for analytical laboratories to provide results, and additional time for data Quality Assurance/Quality Control (QA/QC), the County can only report on the previous quarter's results. During the Second Quarter of 2024 samples were collected at each of the eight (8) stations in the River and tributaries on the Second Tuesday of the Month in January, and on the First Tuesday the month in February and March. Costs for sampling (including salaries and fringe and analysis) have been calculated at approximately \$394 per station per month. No sewage spills were reported on or around the Miami River or its tributaries during the quarter.

The Florida Department of Environmental Protection (FDEP) revised the human health-based surface water quality criteria in Chapter 62-302, F.A.C that are designed to ensure that Floridians can safely eat Florida fish and drink local tap water. Figures 1 -3 below depict where monthly results for stations in the Miami River and the vicinity exceed the single sample standard of 130 cfu/100 ml for Enterococcus—the applicable indicator for saline locations. Figure 4 is a quarterly composite of Enterococci results from station locations on the Miami River and its tributaries showing how frequently the results at each station exceeded the standard during the Second Quarter of the year. Table 1 lists the observed Enterococcus values, as well as E. Coli levels, in Wagner Creek and its confluence with the Miami River (MR03) for January-March.

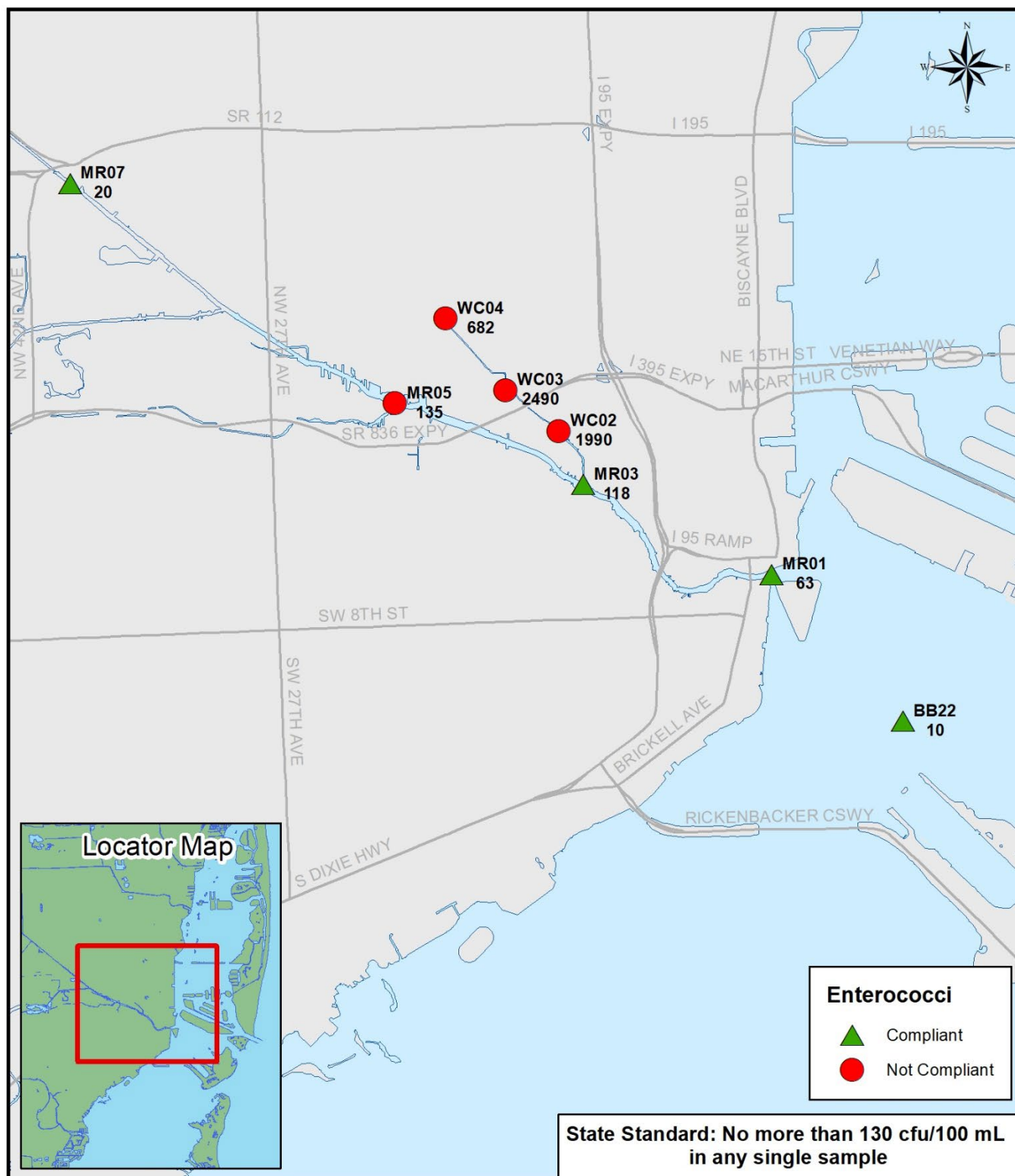
Biscayne Bay Surface Water Quality Monitoring Program
Enterococci Bacteria Sample Compliance
January 2024
Miami River and Tributaries



Biscayne Bay Surface Water Quality Monitoring Program
Enterococci Bacteria Sample Compliance
February 2024
Miami River and Tributaries



Biscayne Bay Surface Water Quality Monitoring Program
Enterococci Bacteria Sample Compliance
March 2024
Miami River and Tributaries



Biscayne Bay Surface Water Quality Monitoring Program

Quarterly Summary of Enterococci Bacteria Sample Compliance

January to March 2024

Miami River and Tributaries

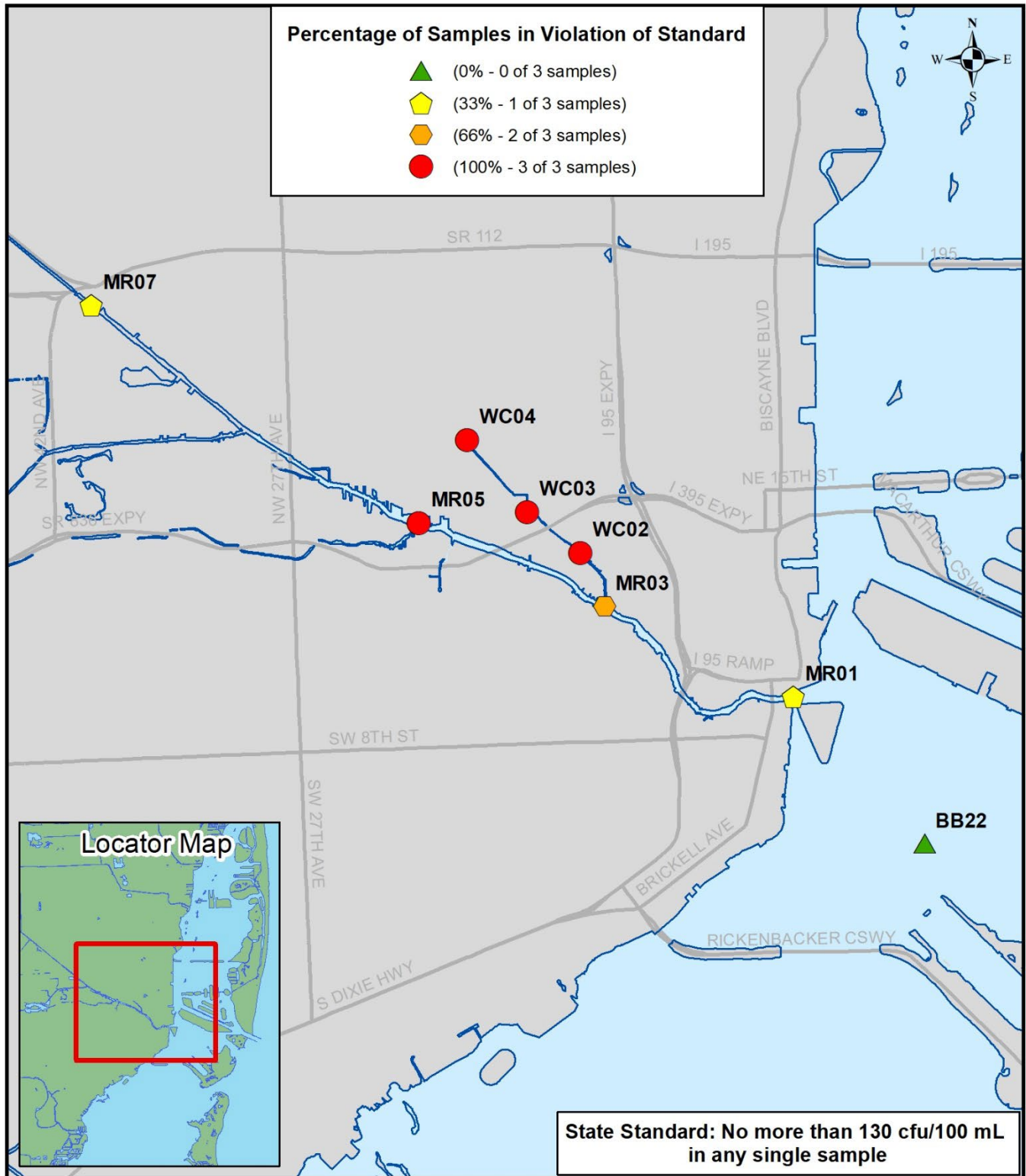


Table 1.

MONTHLY INDICATOR BACTERIA LEVELS (cfu's/100 ml) IN WAGNER CREEK								
	MR03		WC02		WC03		WC04	
Parameter	Enterococci	E. Coli	Enterococci	E. Coli	Enterococci	E. Coli	Enterococci	E. Coli
January	193*	246	960*	2150*	443*	524*	285*	3190*
February	1260*	10500*	24196*	12300*	19900*	17300*	4620*	7980*
March	118	317	1990*	3080*	2490*	2747*	682*	821*

A "*" indicates results that exceed the State's E. Coli Standard (410 cfu/100ml) or Enterococci (130 cfu/100ml); a "0" indicates that the true value was below the method detection limit.

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Ammonia Nitrogen Tracking

Ten Year Period: 2014-2024

Lower Miami River

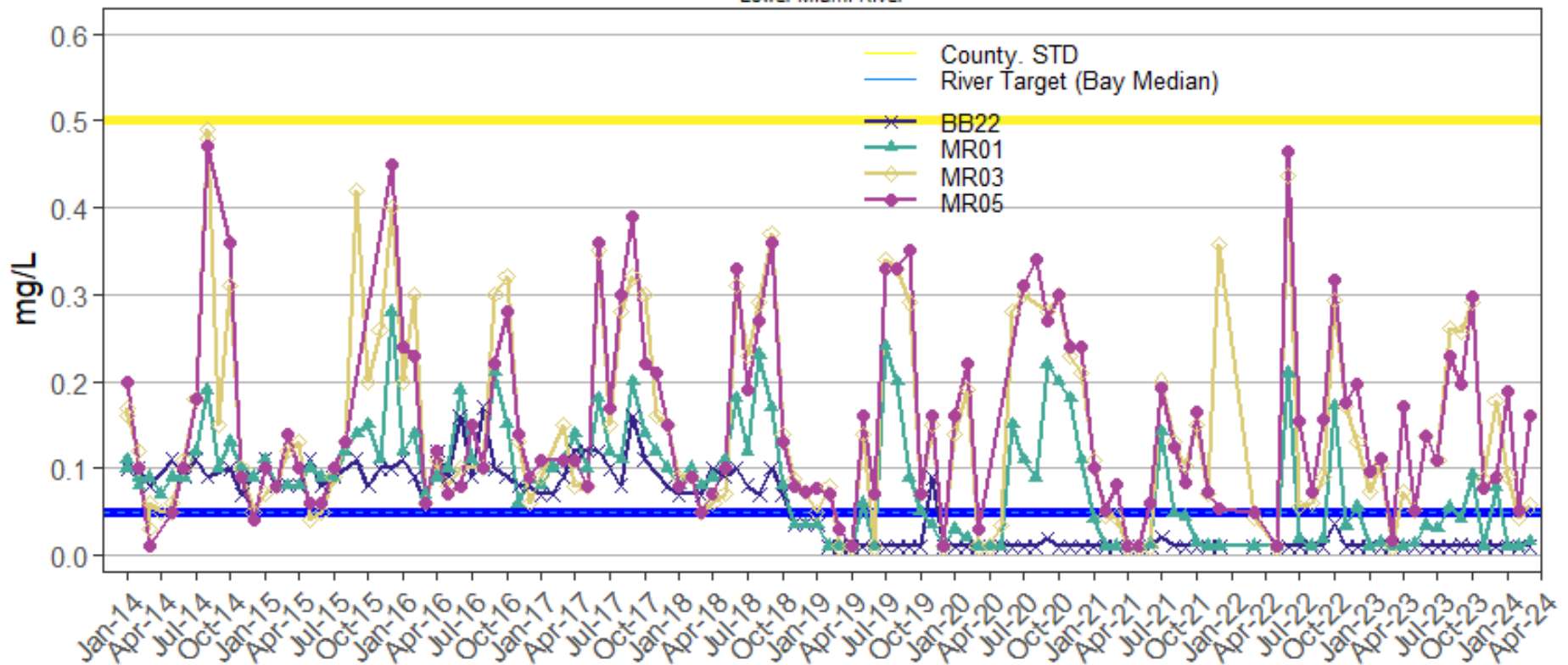


Chart 1

Ammonia Nitrogen Tracking

Ten Year Period: 2014-2024

Upper Miami River

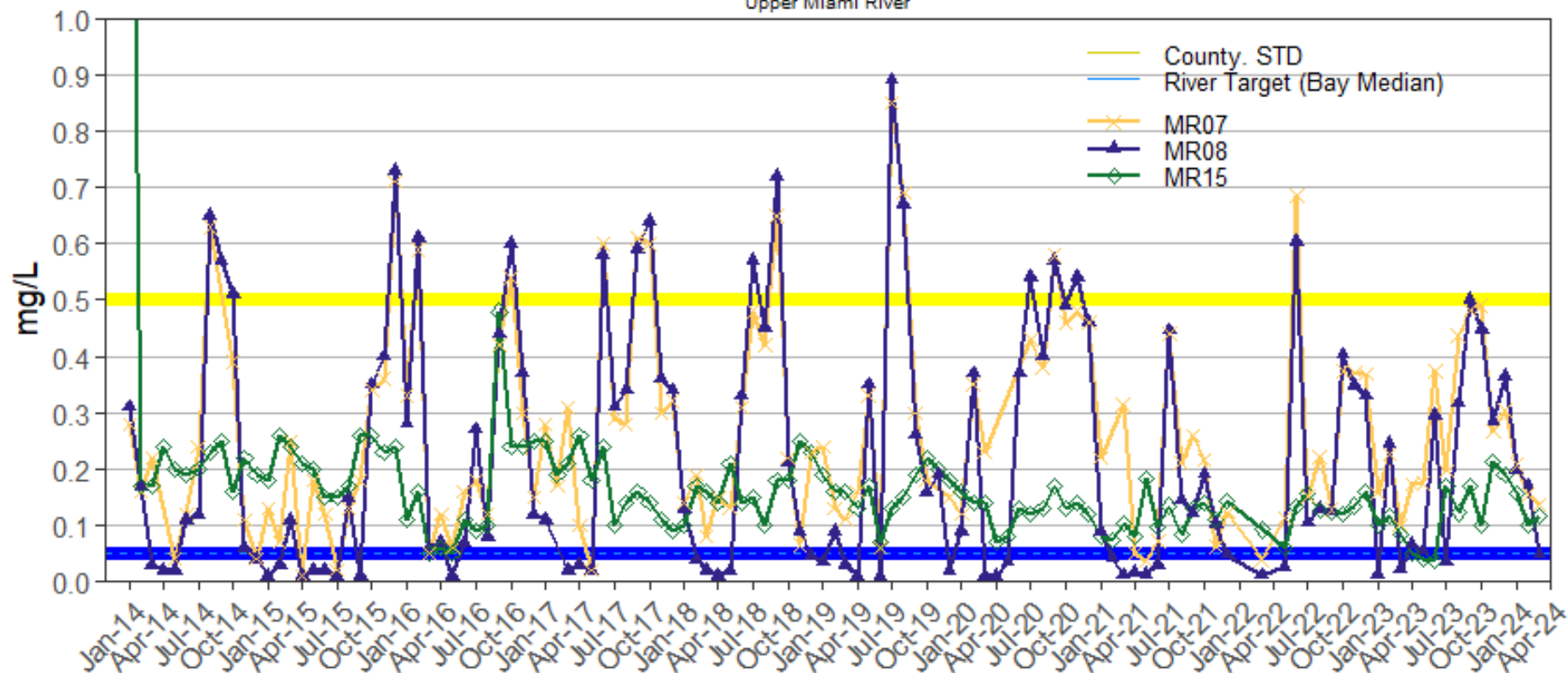


Chart 2

Ammonia Nitrogen Tracking

Ten Year Period: 2014-2024

Wagner Creek

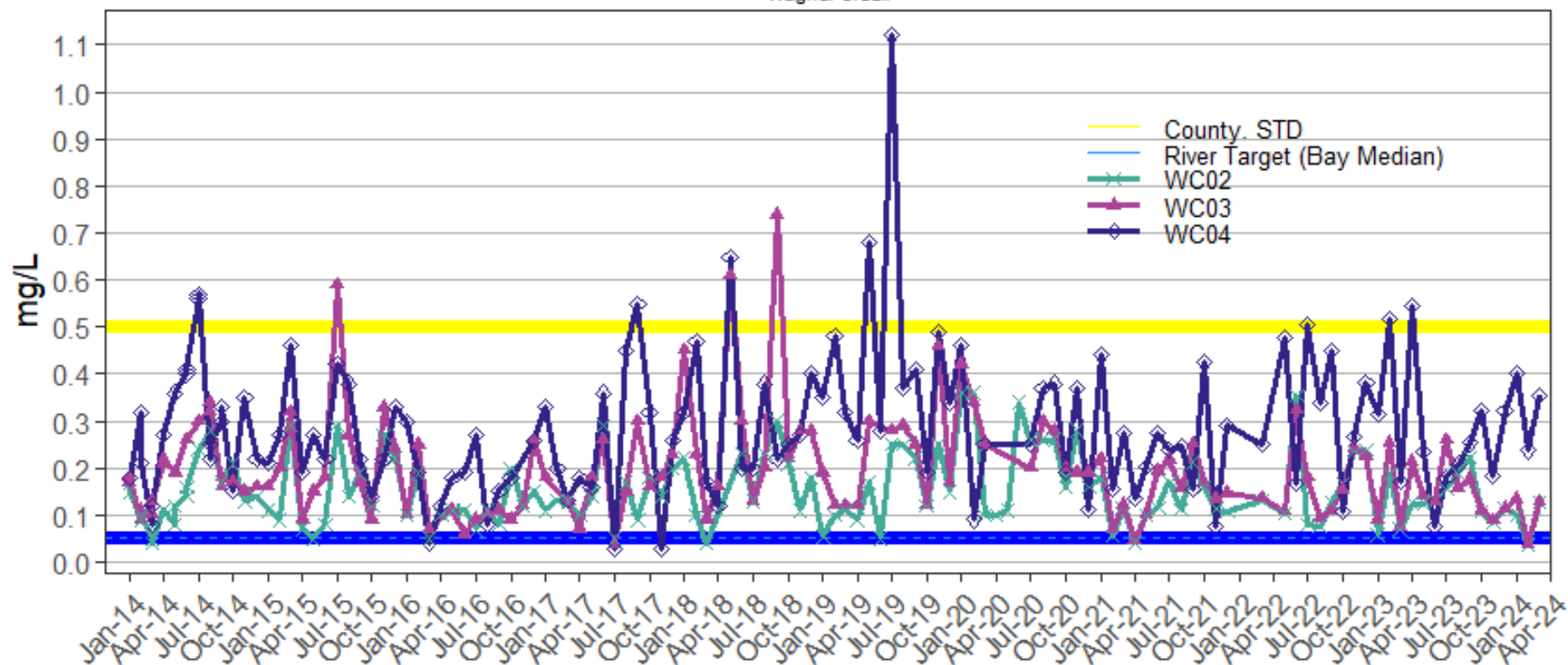


Chart 3

Total Phosphate Tracking

Ten Year Period: 2014-2024

Lower Miami River

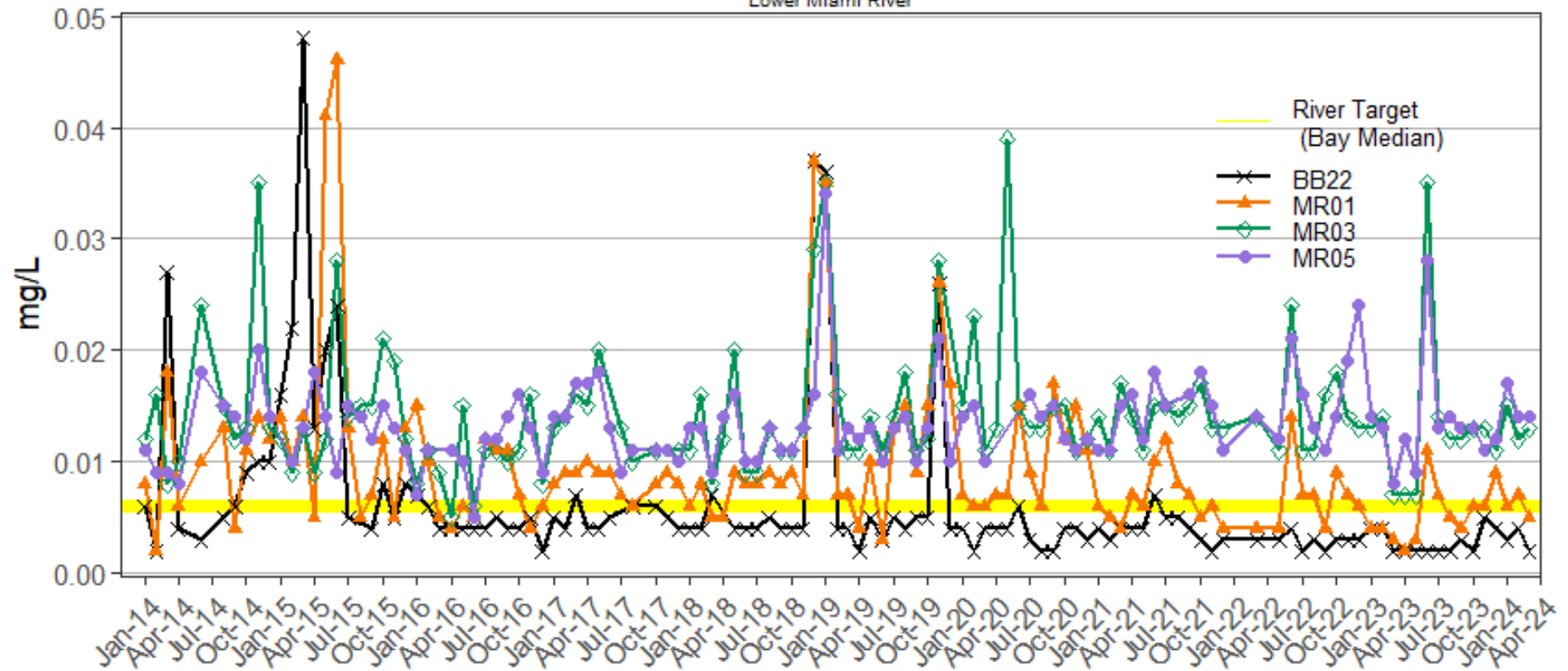


Chart 4

Total Phosphate Tracking

Ten Year Period: 2014-2024

Upper Miami River

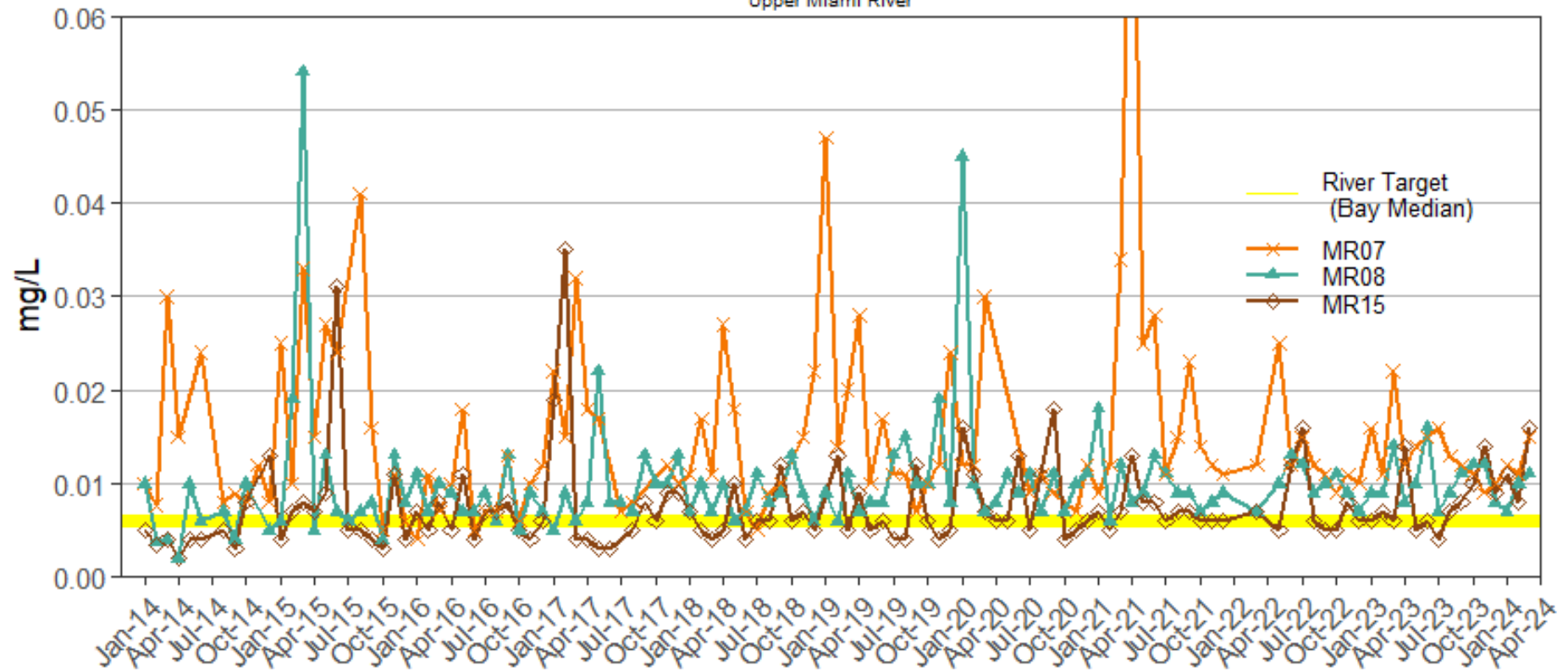


Chart 5

Total Phosphate Tracking

Ten Year Period: 2014-2024

Wagner Creek

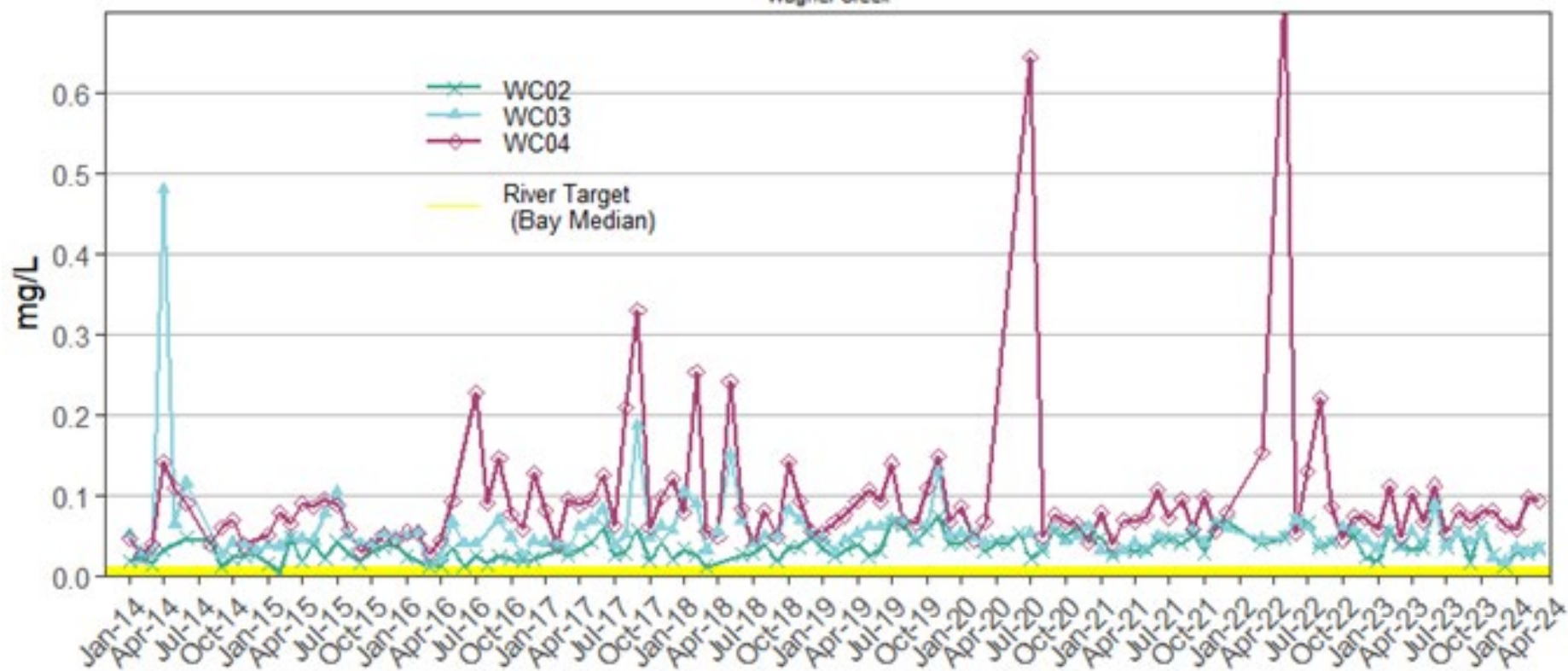


Chart 6

Enterococci Tracking

Lower Miami River

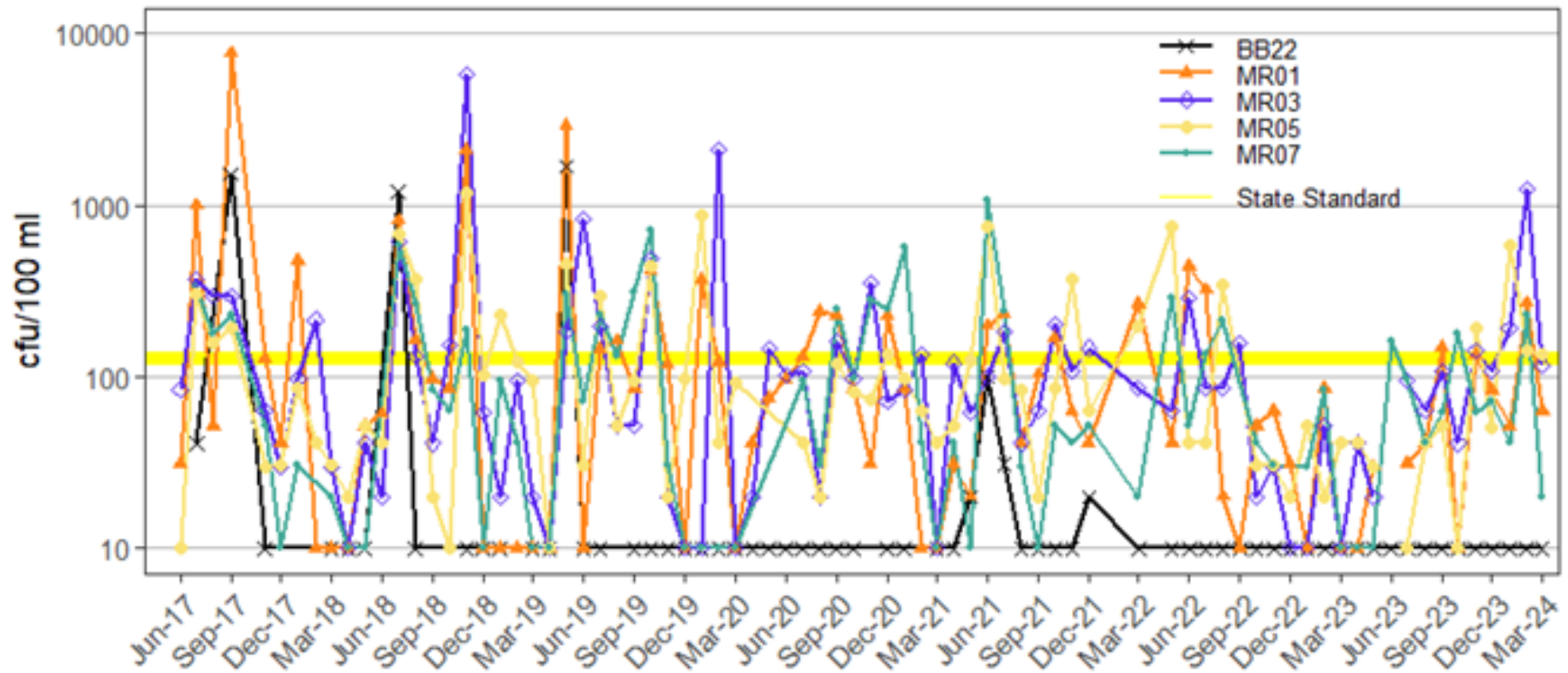


Chart 7

Enterococci Tracking

Wagner Creek

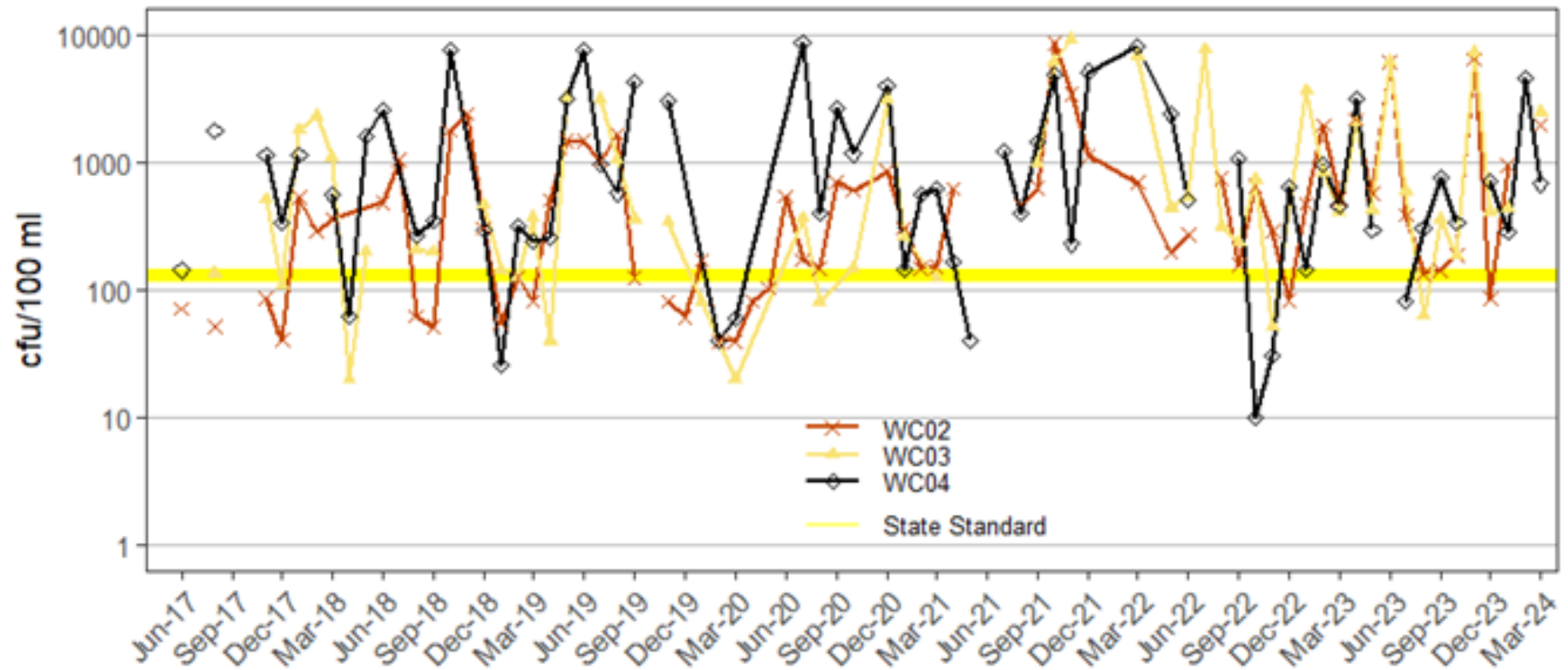


Chart 8

E. coli Tracking

Lower Miami River

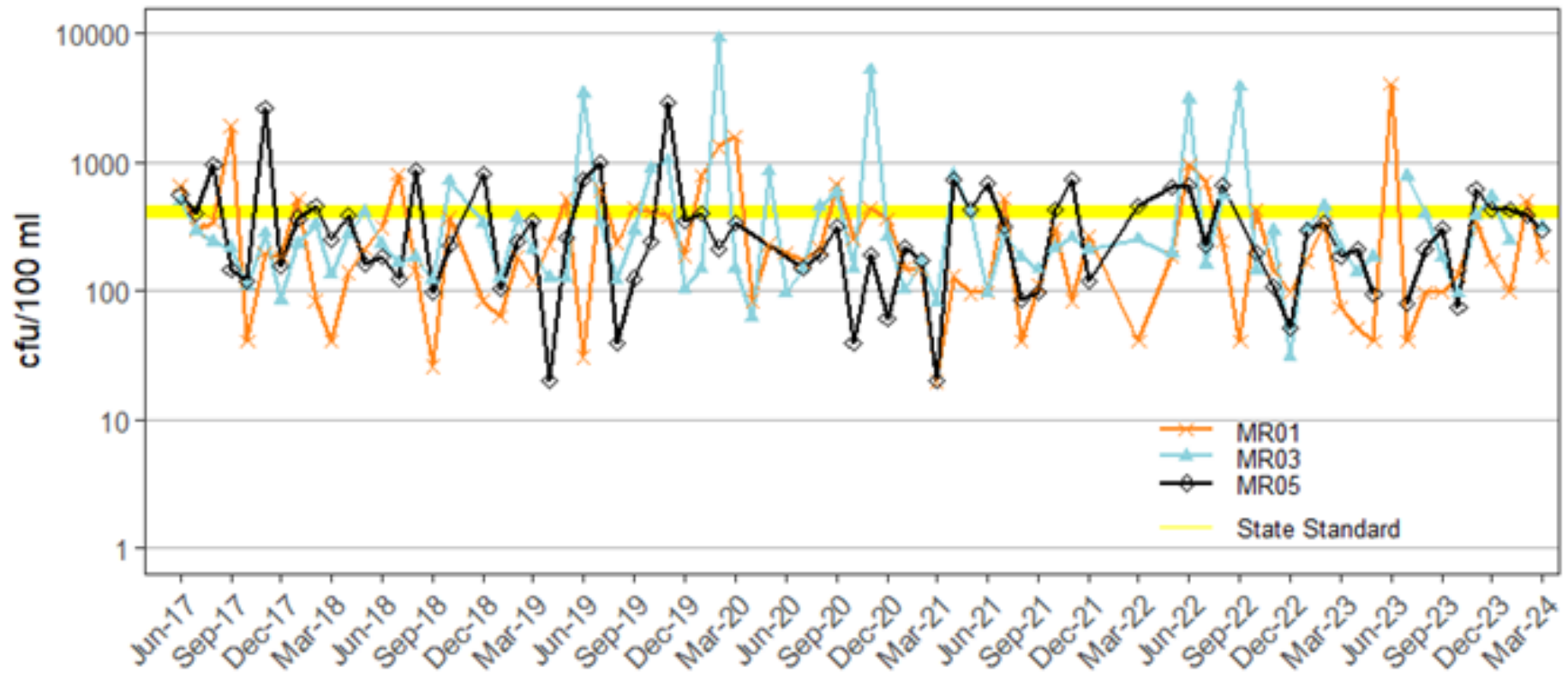


Chart 9

E. coli Tracking

Upper Miami River

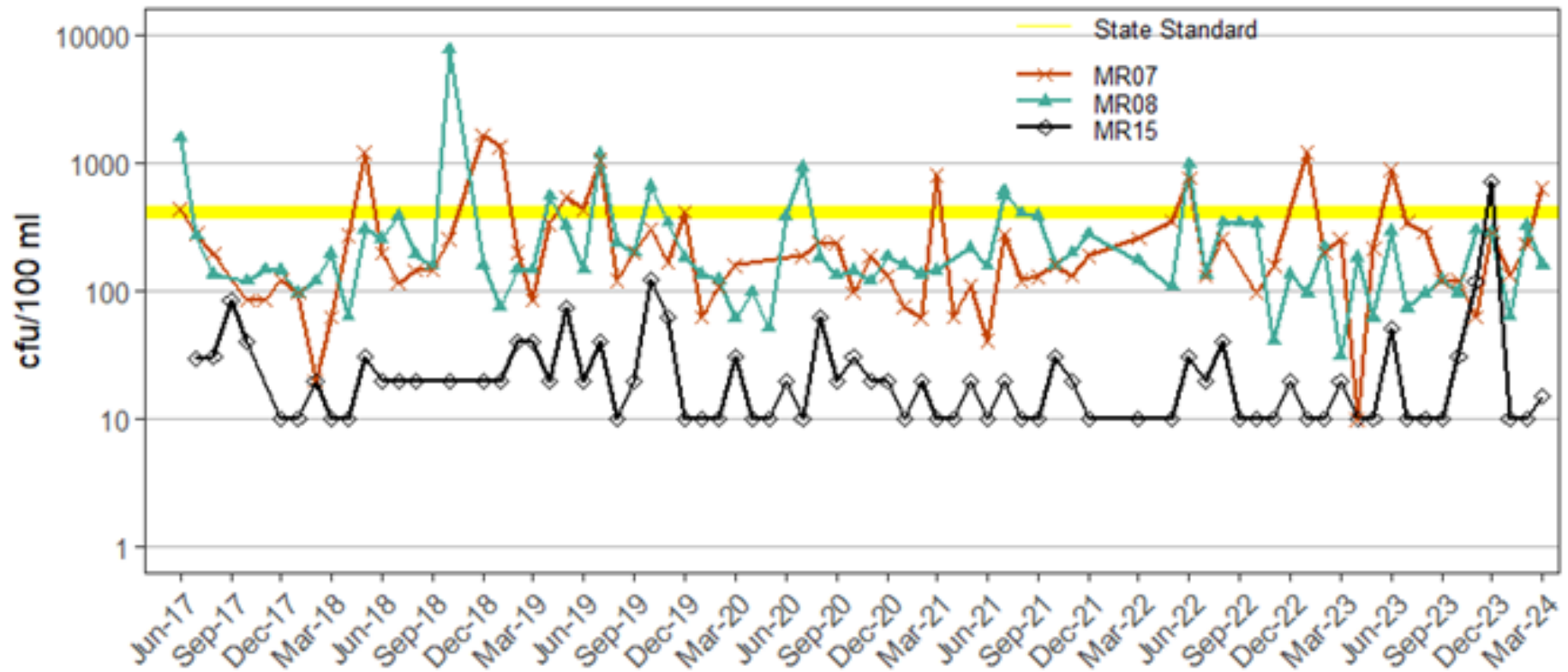


Chart 10

E. coli Tracking

Wagner Creek

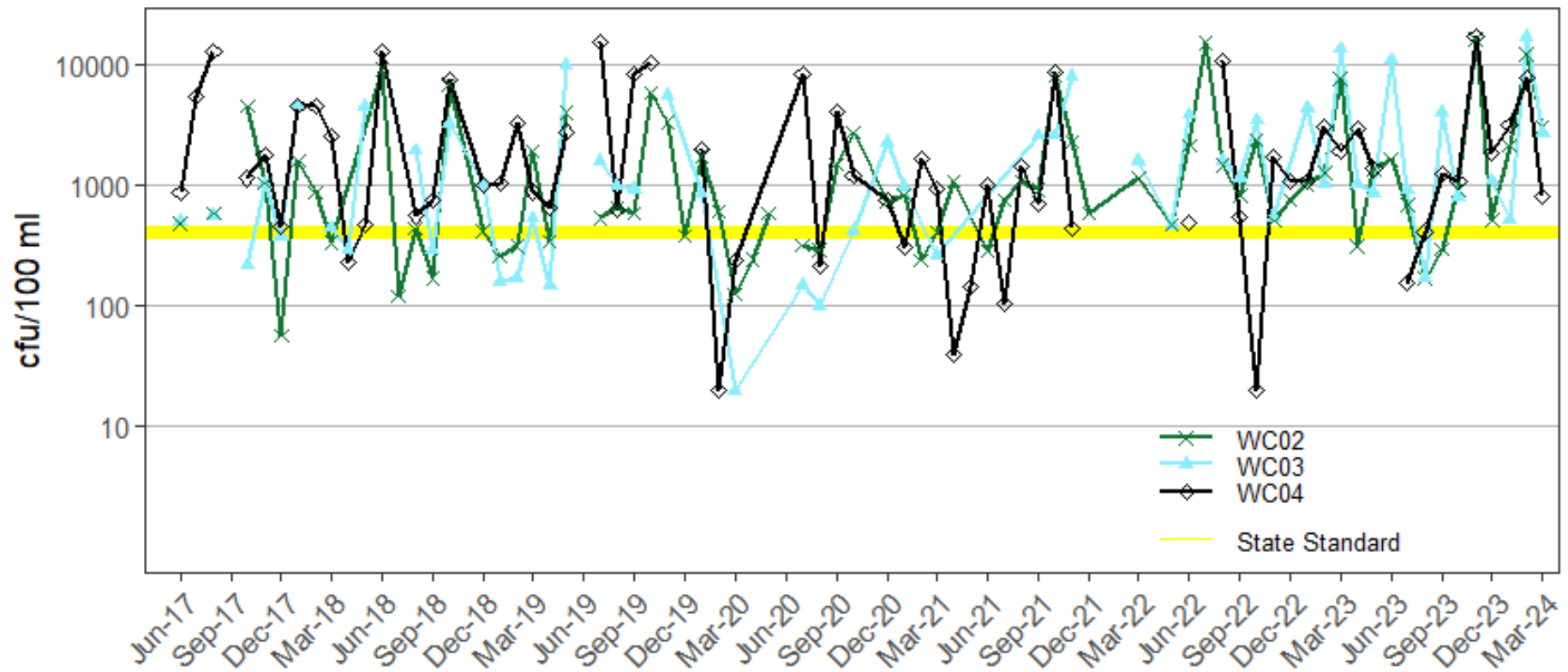


Chart 11

Turbidity Tracking

Ten Year Period: 2014-2024

Lower Miami River

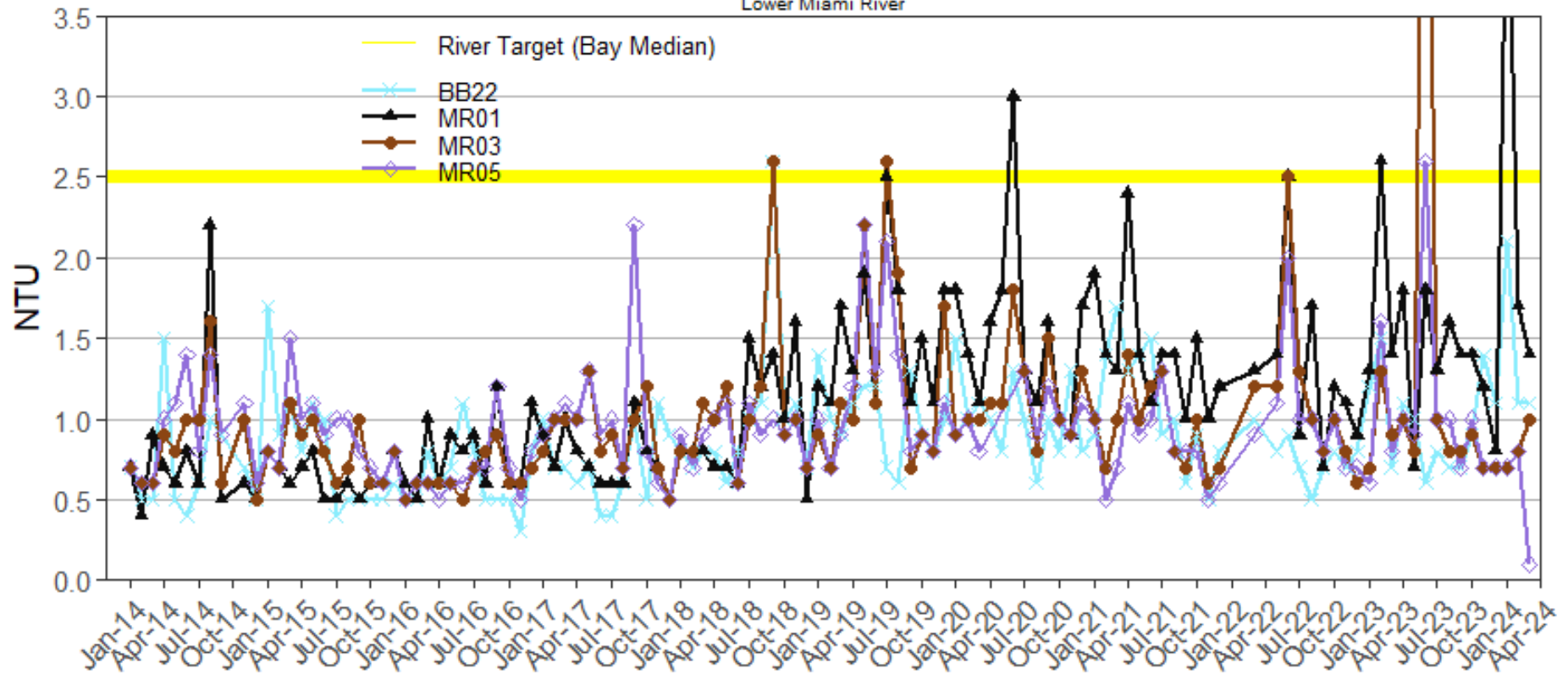


Chart 12

Turbidity Tracking

Ten Year Period: 2014-2024

Upper Miami River

At MR15:
Jan 2024 – 18.8 NTU,
March 2024 - 22.8 NTU,
Nov 2023 was 64.8 NTU
Heavy construction in the area

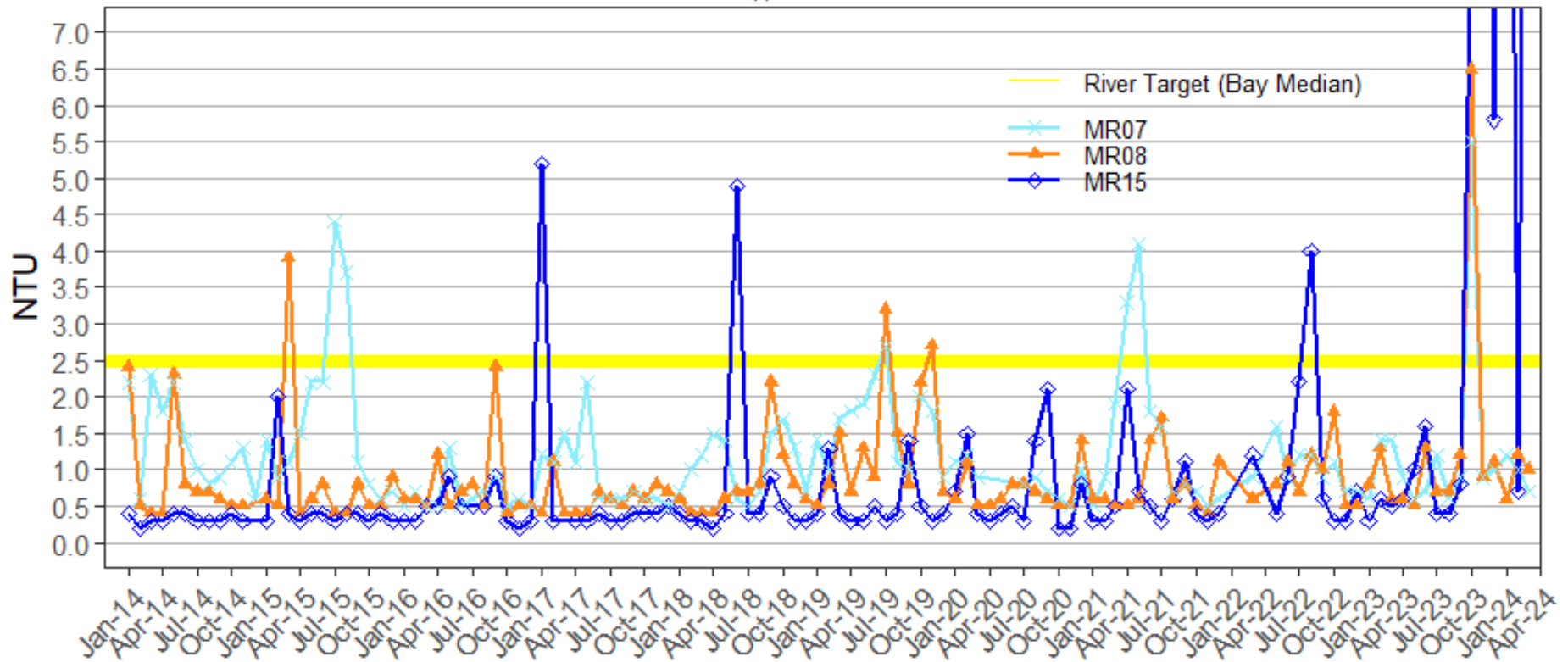


Chart 13

Turbidity Tracking

Ten Year Period: 2014-2024

