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

Fourth Quarterly Report, 2025
(July – September 2025)

Action Item:

4. Monitoring and Research
   a. Continue monthly monitoring of water quality at Wagner Creek, Miami River, and adjoining Biscayne Bay

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Action Item Status:

Miami-Dade County (the County) has continued collecting 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 sample results, and additional time for data quality assurance/quality control, the County can only report on the previous quarter's results. During the fourth quarter (July-September) of 2025, samples were collected at each of the eleven (11) stations in the river and tributaries on the first Tuesday of the month in July, August, and September. Costs for sampling (including salaries and fringe and analysis) have been calculated at approximately $394 per station per month. No sewage spills were reported during this 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 along the Miami River and the vicinity exceed the single sample standard of 130 cfu/100 mL for *Enterococcus* spp.—the applicable indicator for saline locations. Figure 4 shows 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 fourth quarter of the year. Table 1 lists the observed *Enterococcus* values, as well as *Escherichia. coli* levels, in Wagner Creek and its confluence with the Miami River (MR03) for July-September.

Biscayne Bay Surface Water Quality Monitoring Program
Enterococci Bacteria Sample Compliance
July 2025
Miami River and Tributaries

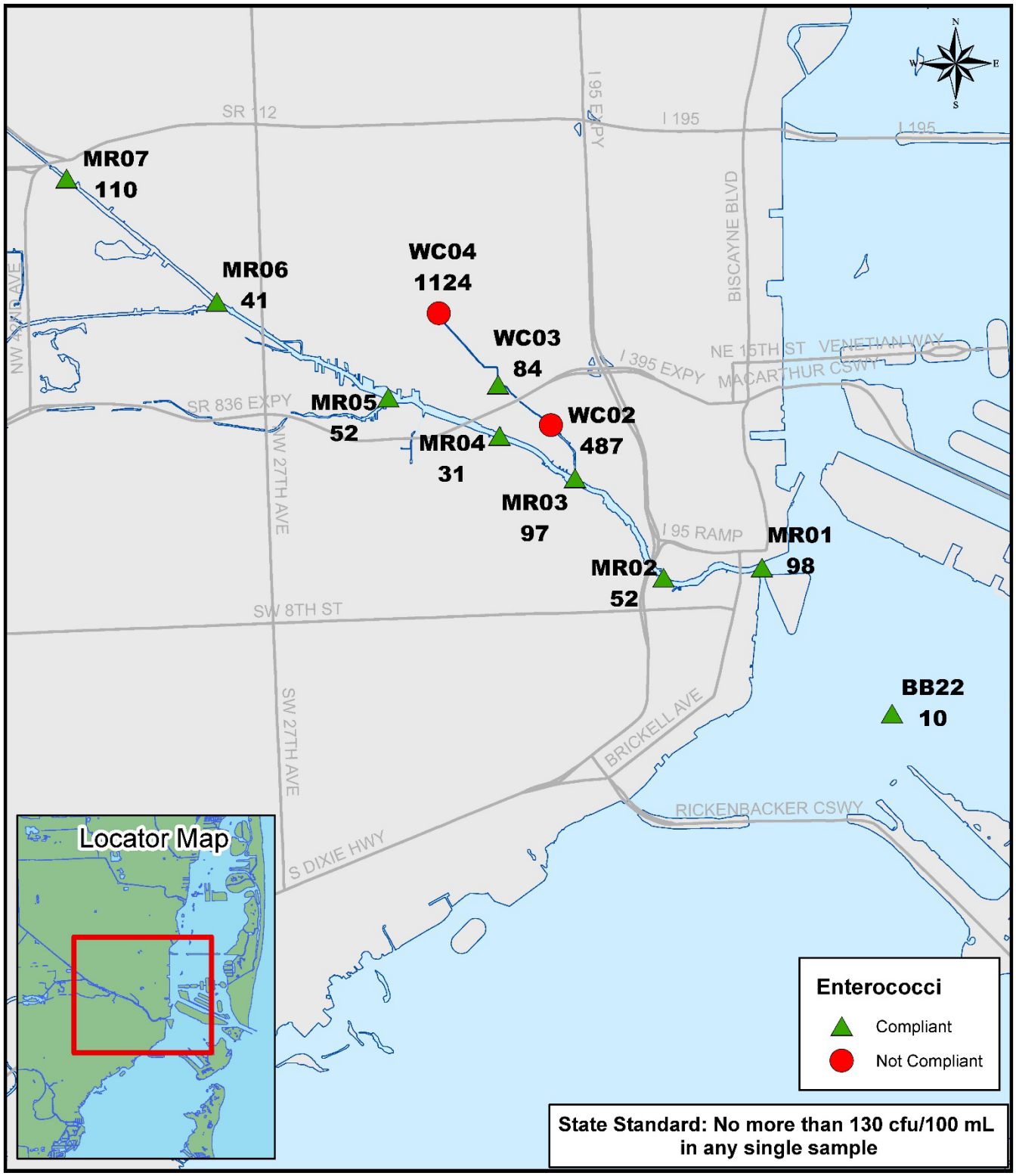


Figure 1

Biscayne Bay Surface Water Quality Monitoring Program
Enterococci Bacteria Sample Compliance
August 2025
Miami River and Tributaries

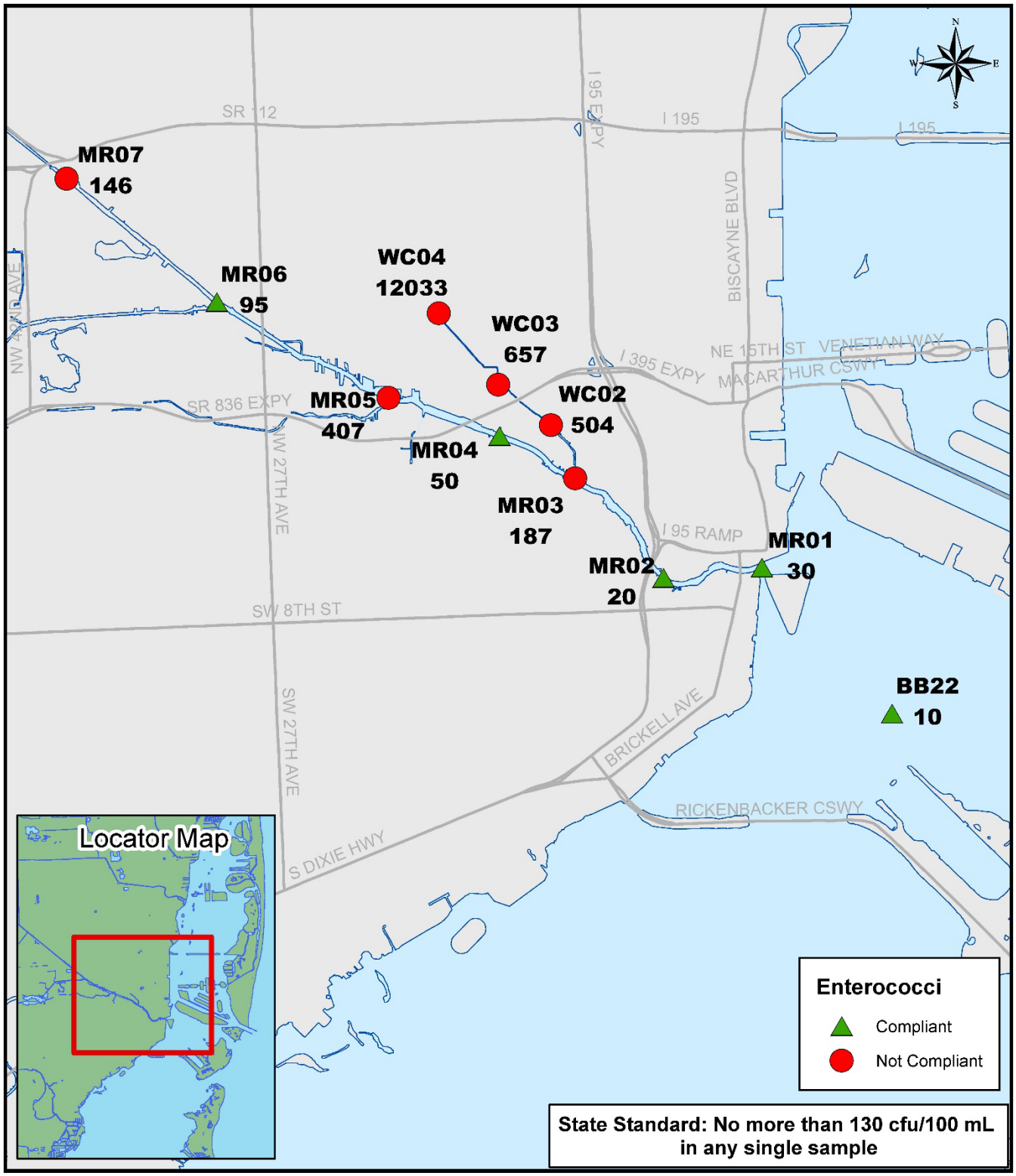


Figure 2

Biscayne Bay Surface Water Quality Monitoring Program
Enterococci Bacteria Sample Compliance
September 2025
Miami River and Tributaries

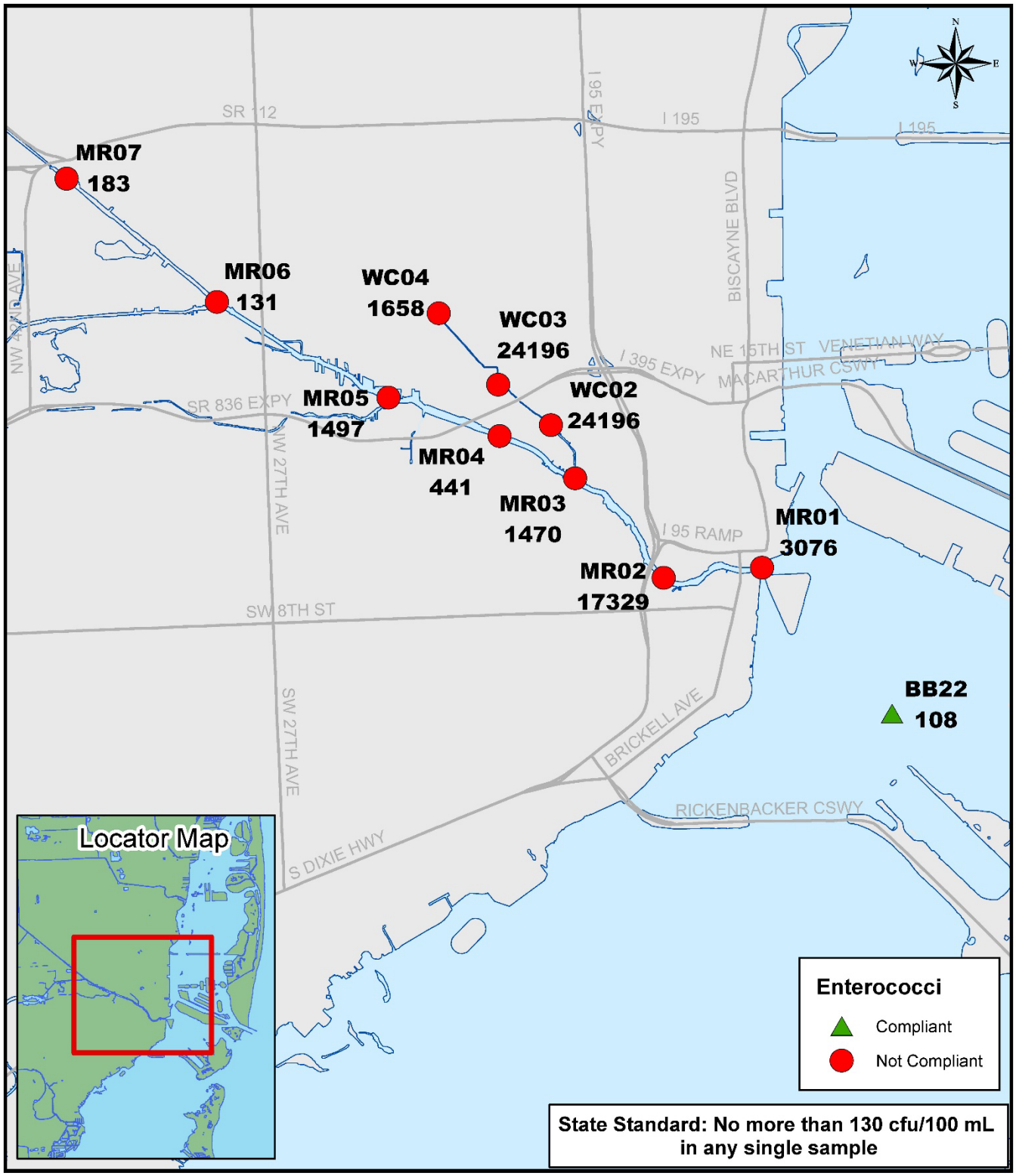


Figure 3

Biscayne Bay Surface Water Quality Monitoring Program
Quarterly Summary of Enterococci Bacteria Sample Compliance
July - August 2025
Miami River and Tributaries

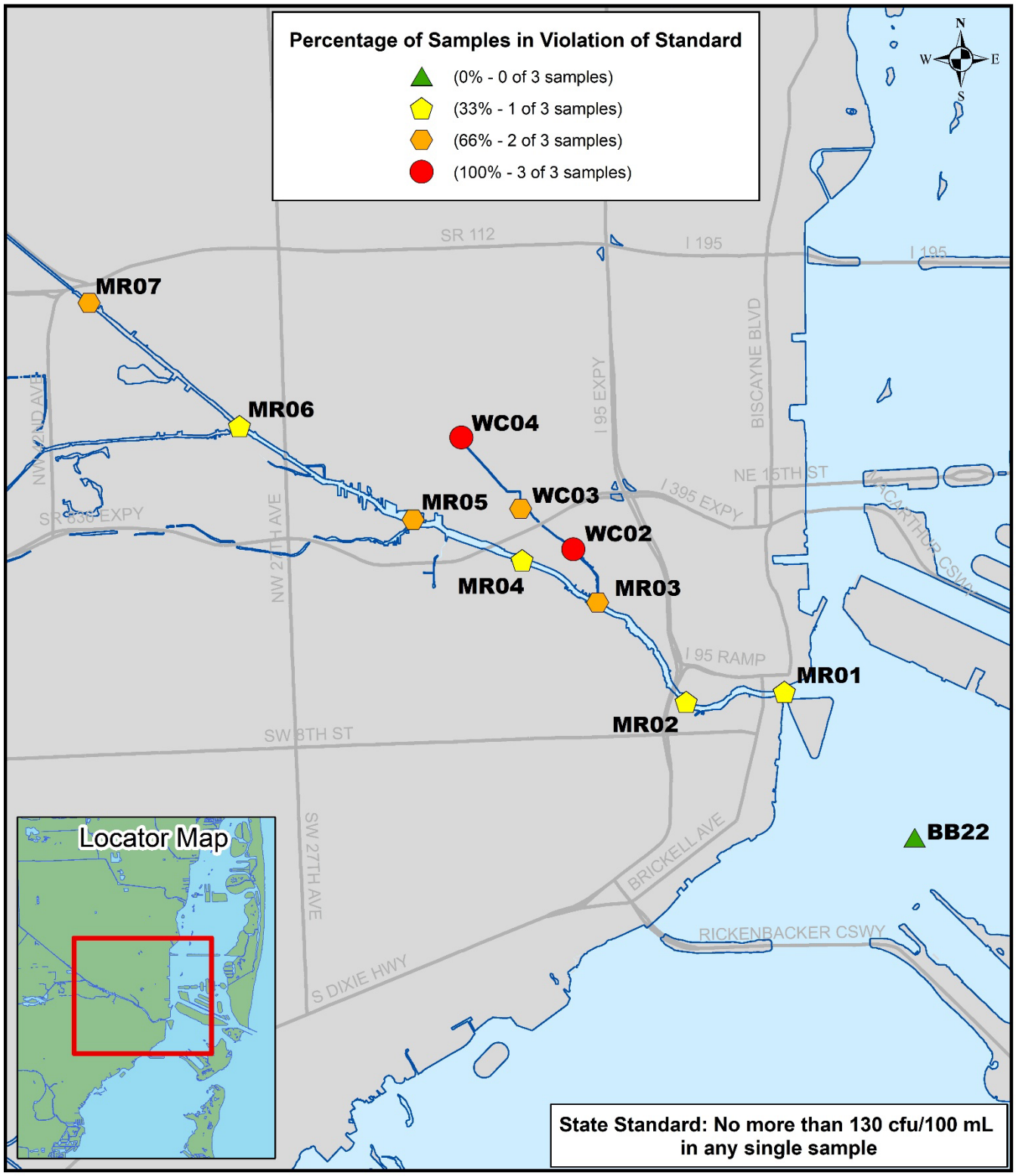
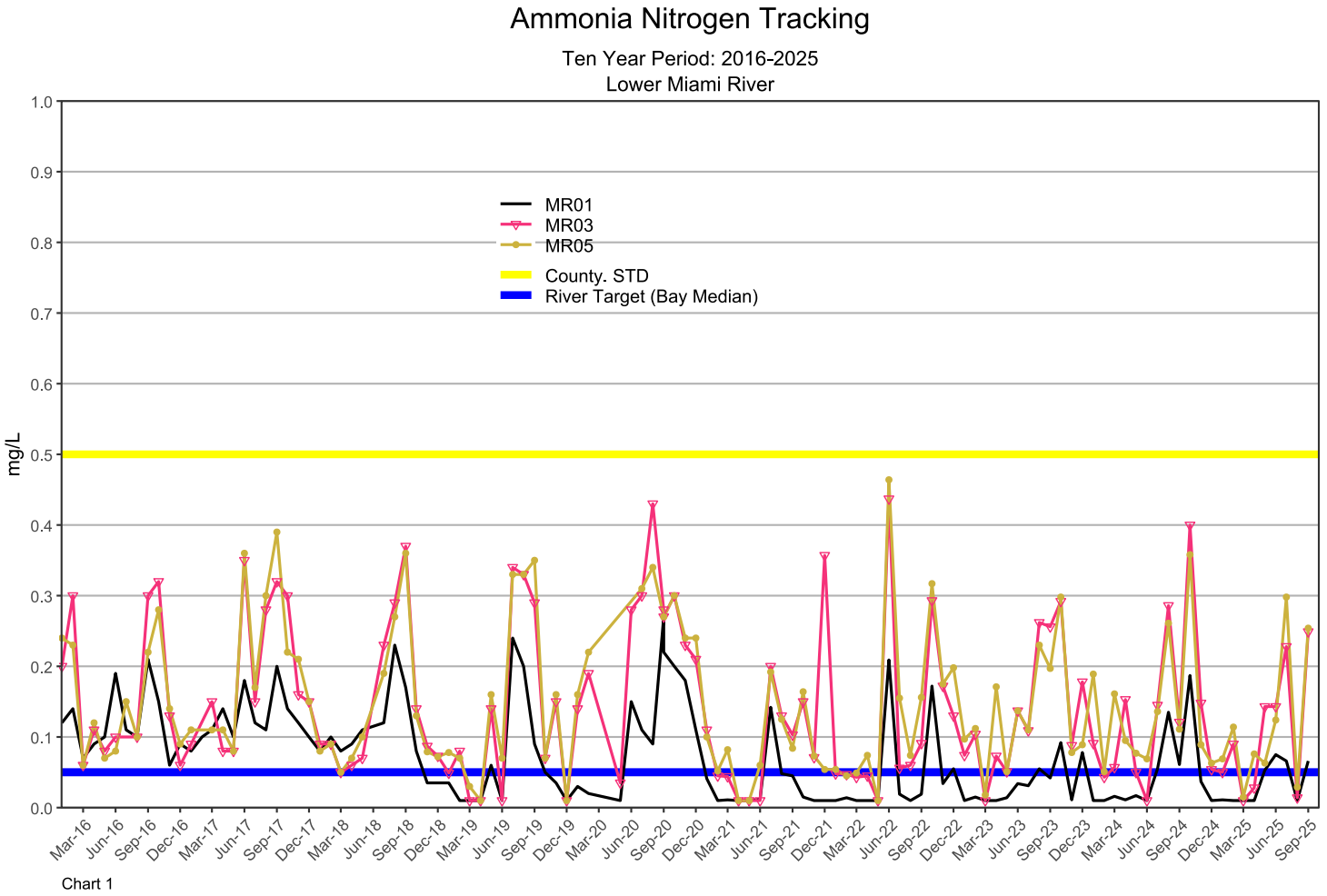


Figure 4

Table 1.

MONTHLY INDICATOR BACTERIA LEVELS (cfu's/100 mL) IN WAGNER CREEK								
	MR03		WC02		WC03		WC04	
Parameter	Entero	*E. coli*	Entero	*E. coli*	Entero	*E. coli*	Entero	*E. coli*
July	97	**1106***	**487***	301	84	323	**1124***	**3076***
August	**187***	**497***	**504***	**2064***	**657***	**2613***	**12033***	**24196***
September	**1470***	**4106***	**24196***	**24196***	**24196***	**24196***	**1658***	**24196***

An asterisk (*) indicates a result that exceeds the state standard for Enterococci (130 cfu/100 mL) or *E. coli* (410 cfu/100 mL); a "0" indicates that the true value was below the method detection limit.


Ammonia Nitrogen Tracking
Ten Year Period: 2016-2025
Lower Miami River
mg/L
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
MR01
MR03
MR05
County. STD
River Target (Bay Median)
Mar-16
Jun-16
Sep-16
Dec-16
Mar-17
Jun-17
Sep-17
Dec-17
Mar-18
Jun-18
Sep-18
Dec-18
Mar-19
Jun-19
Sep-19
Dec-19
Mar-20
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Dec-21
Mar-22
Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
Sep-25
Chart 1

Ammonia Nitrogen Tracking

Ten Year Period: 2016-2025
Upper Miami River

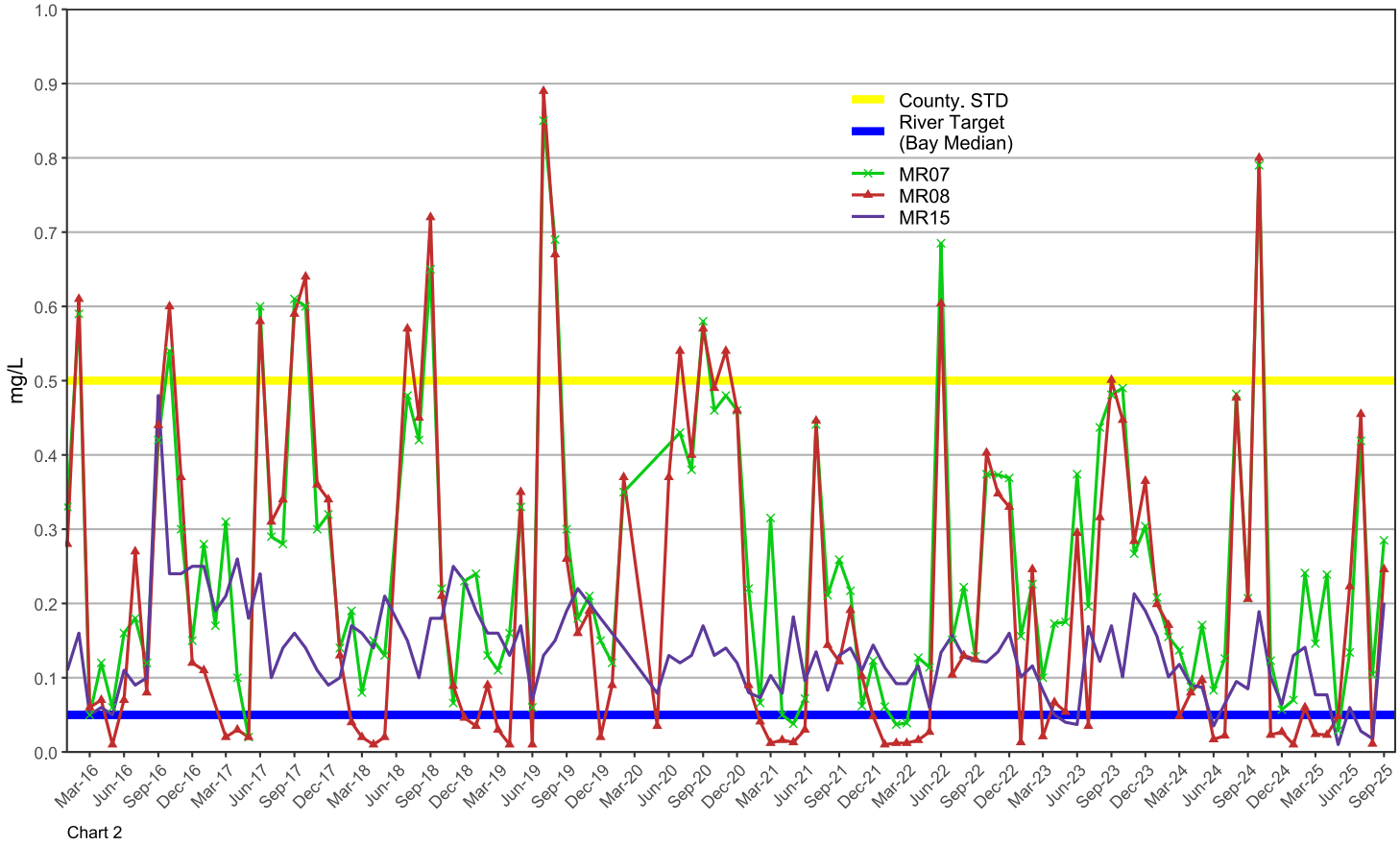


Chart 2

Ammonia Nitrogen Tracking

Ten Year Period: 2016-2025

Wagner Creek

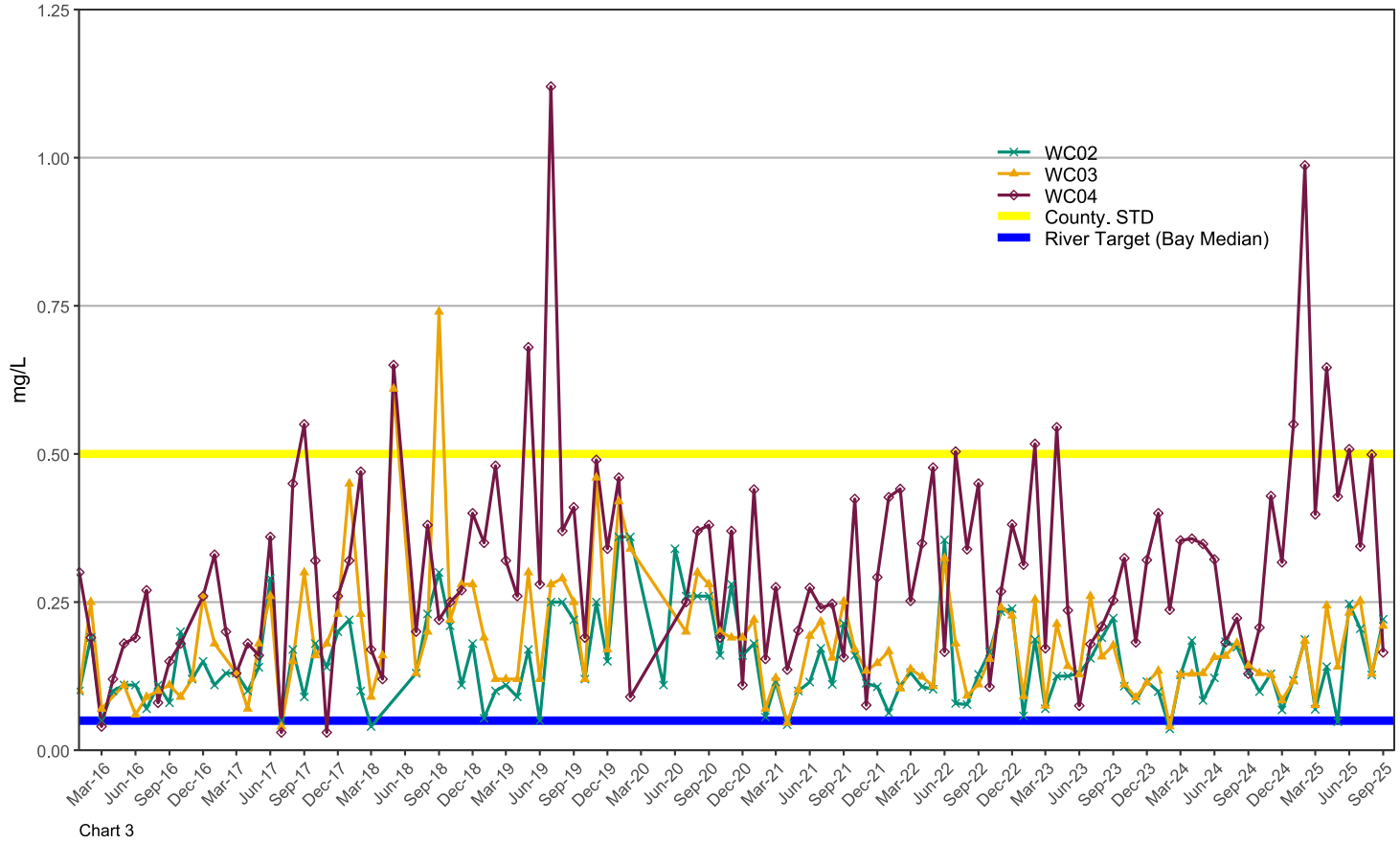


Chart 3

Total Phosphorus Tracking

Ten Year Period: 2016-2025

Lower Miami River

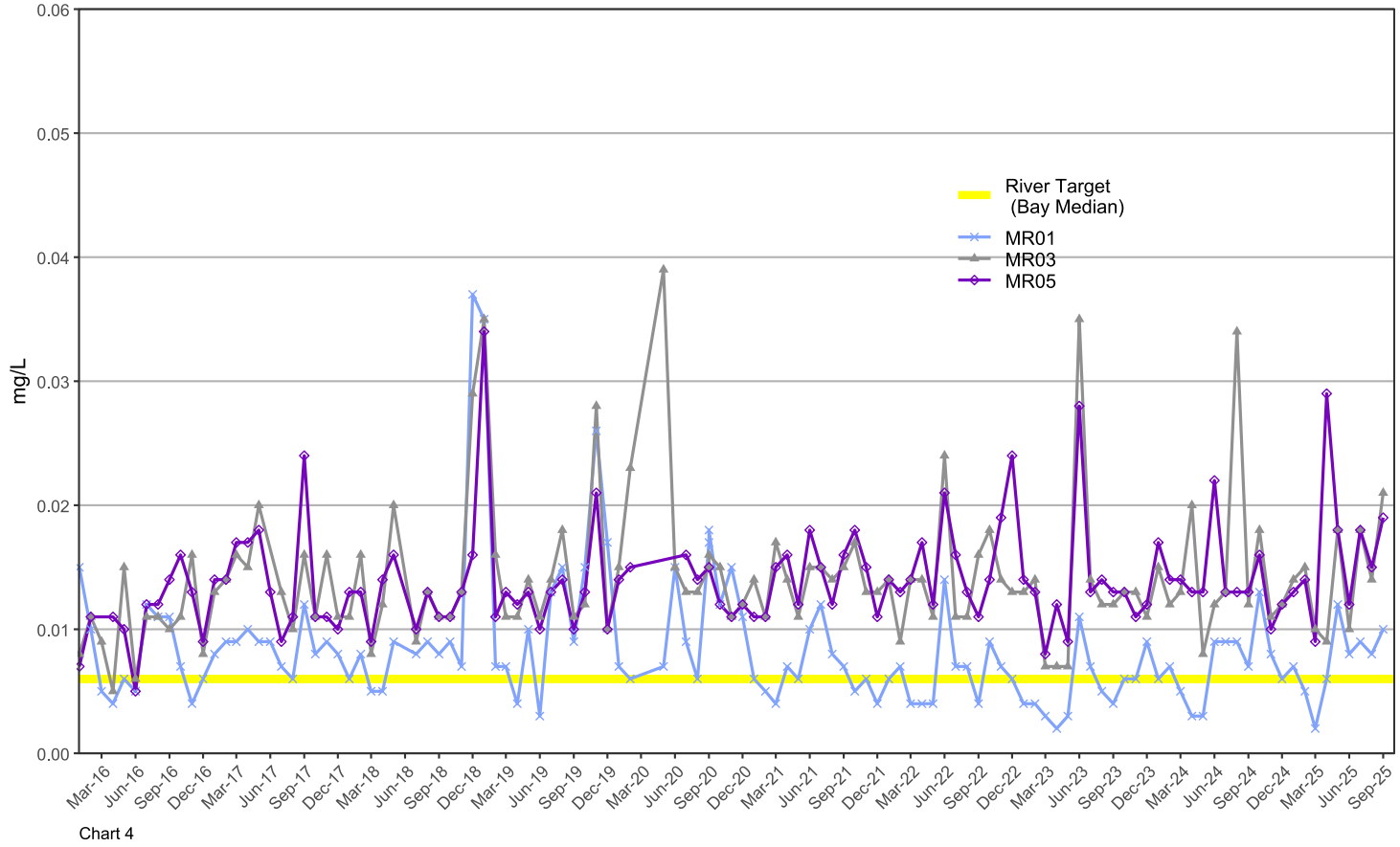


Chart 4

Total Phosphorus Tracking

Ten Year Period: 2016-2025
Upper Miami River

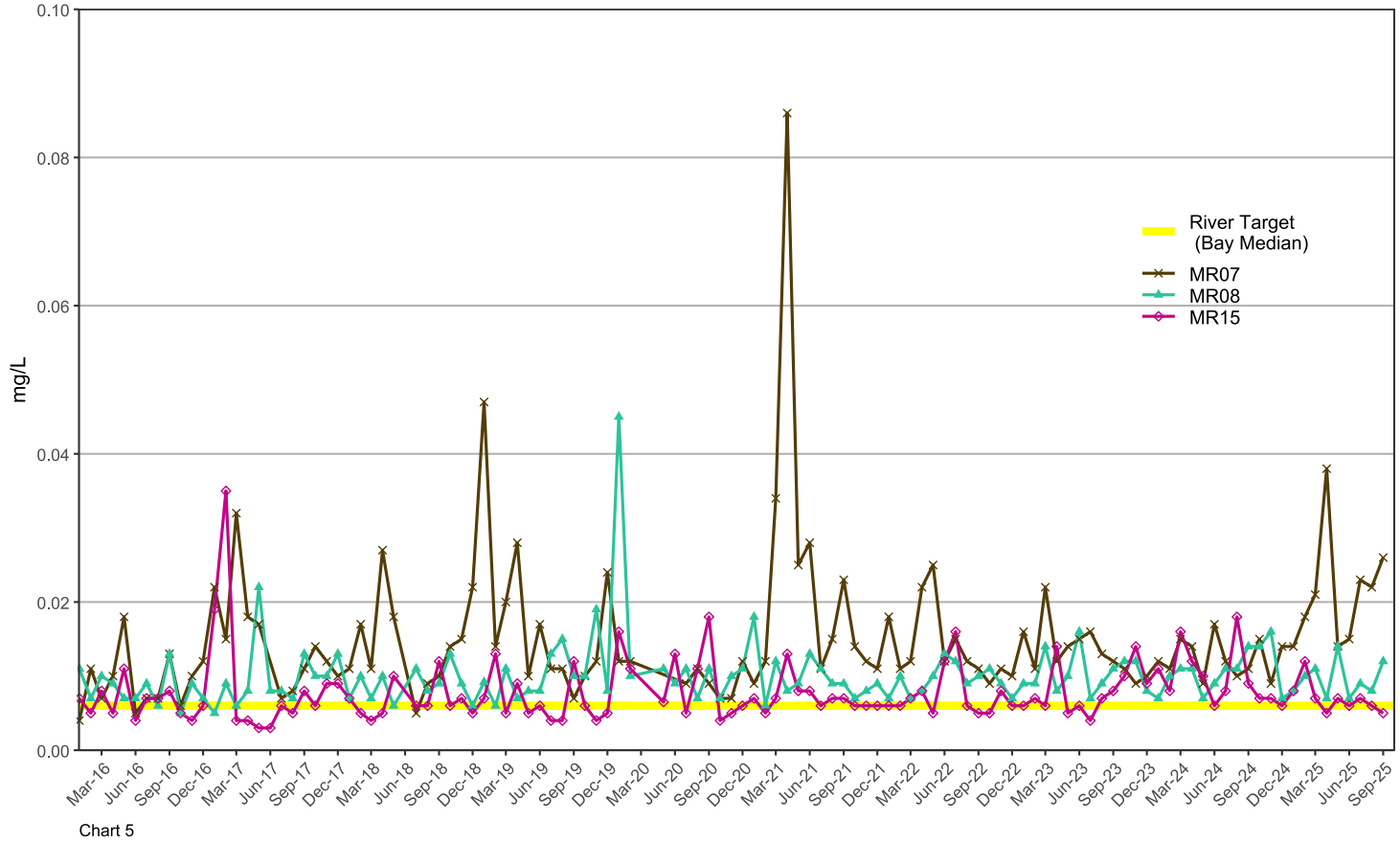


Chart 5

Total Phosphorus Tracking

Ten Year Period: 2016-2025

Wagner Creek

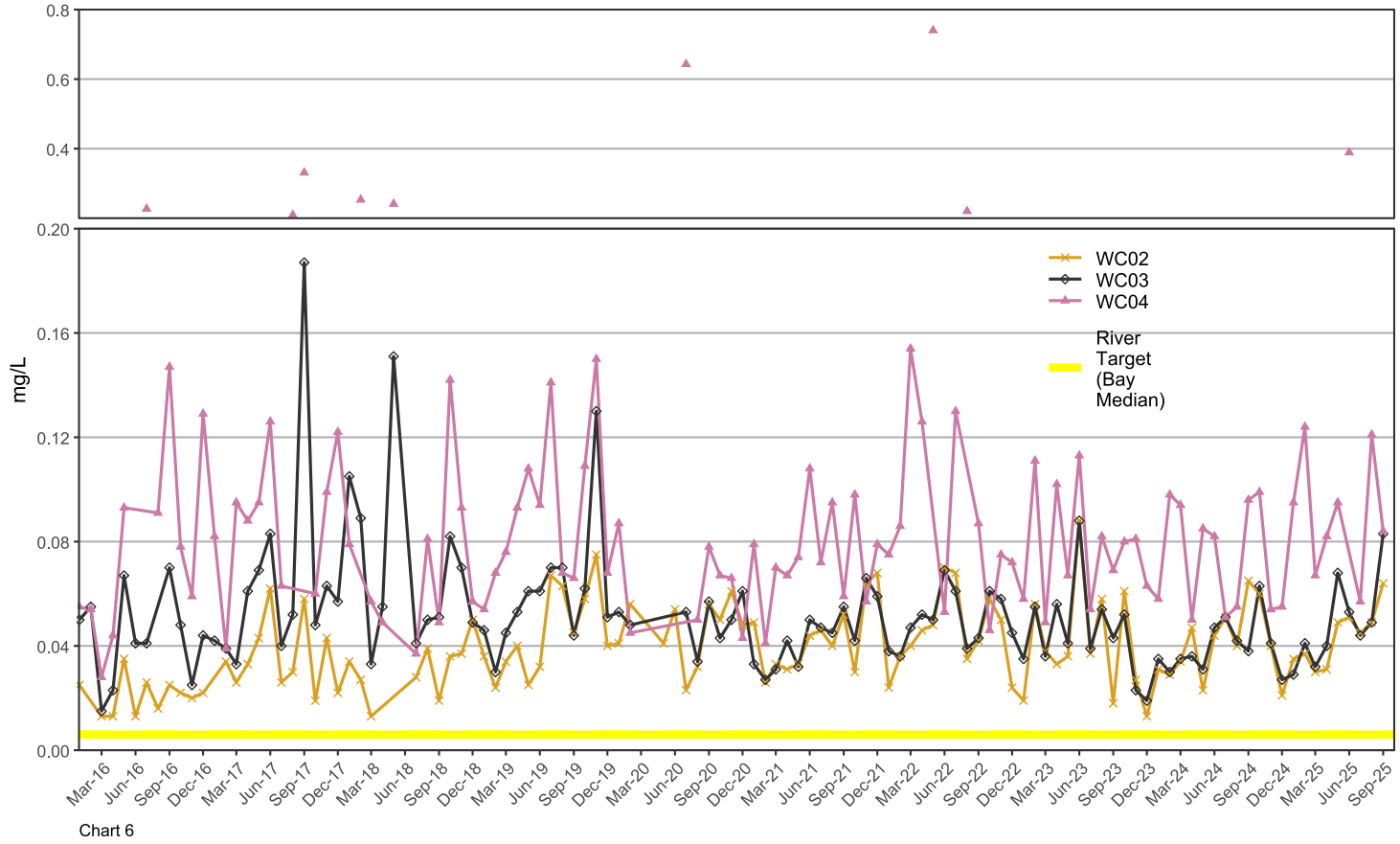


Chart 6

Enterococci Tracking

Lower Miami River

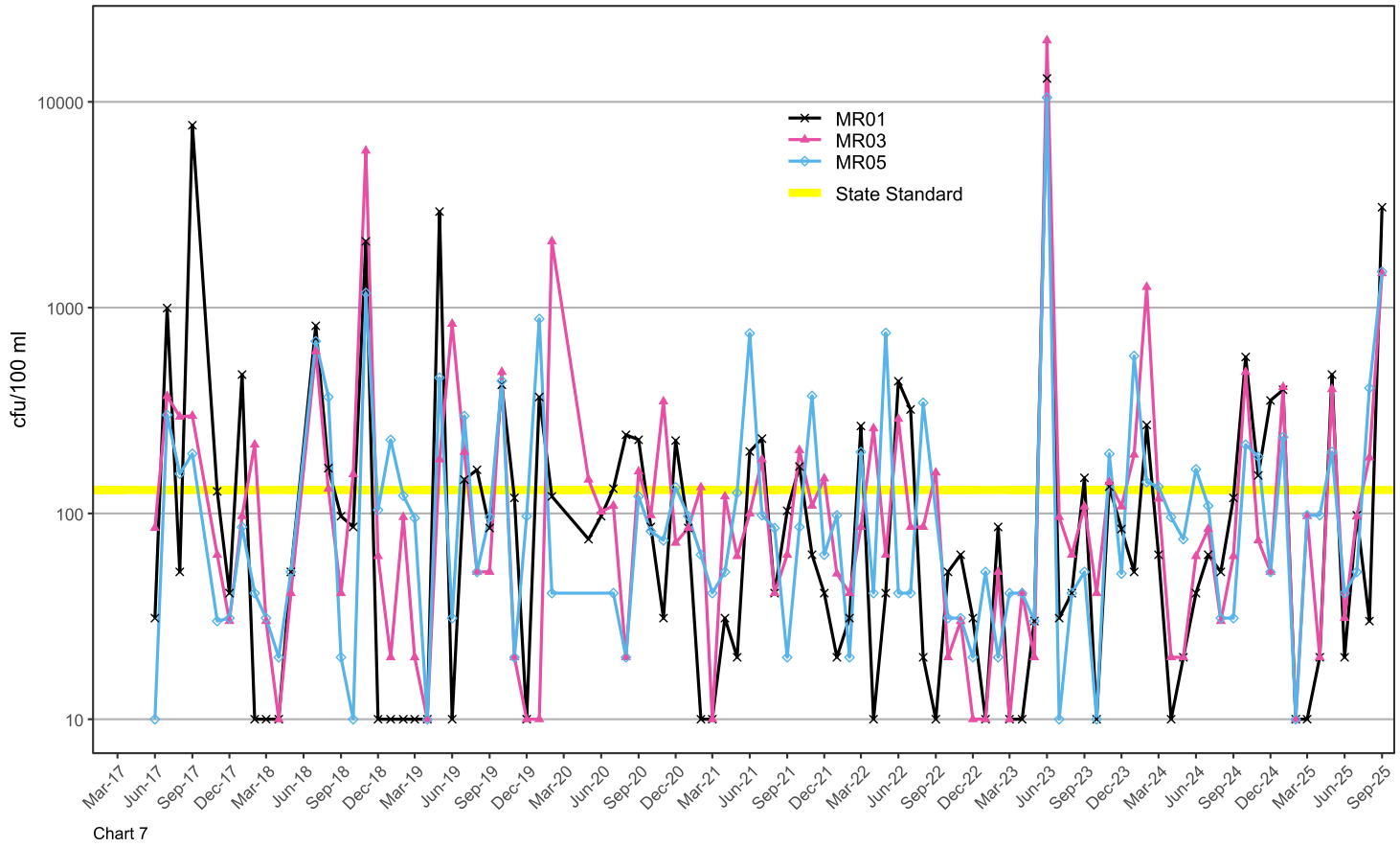


Chart 7

Enterococci Tracking

Wagner Creek

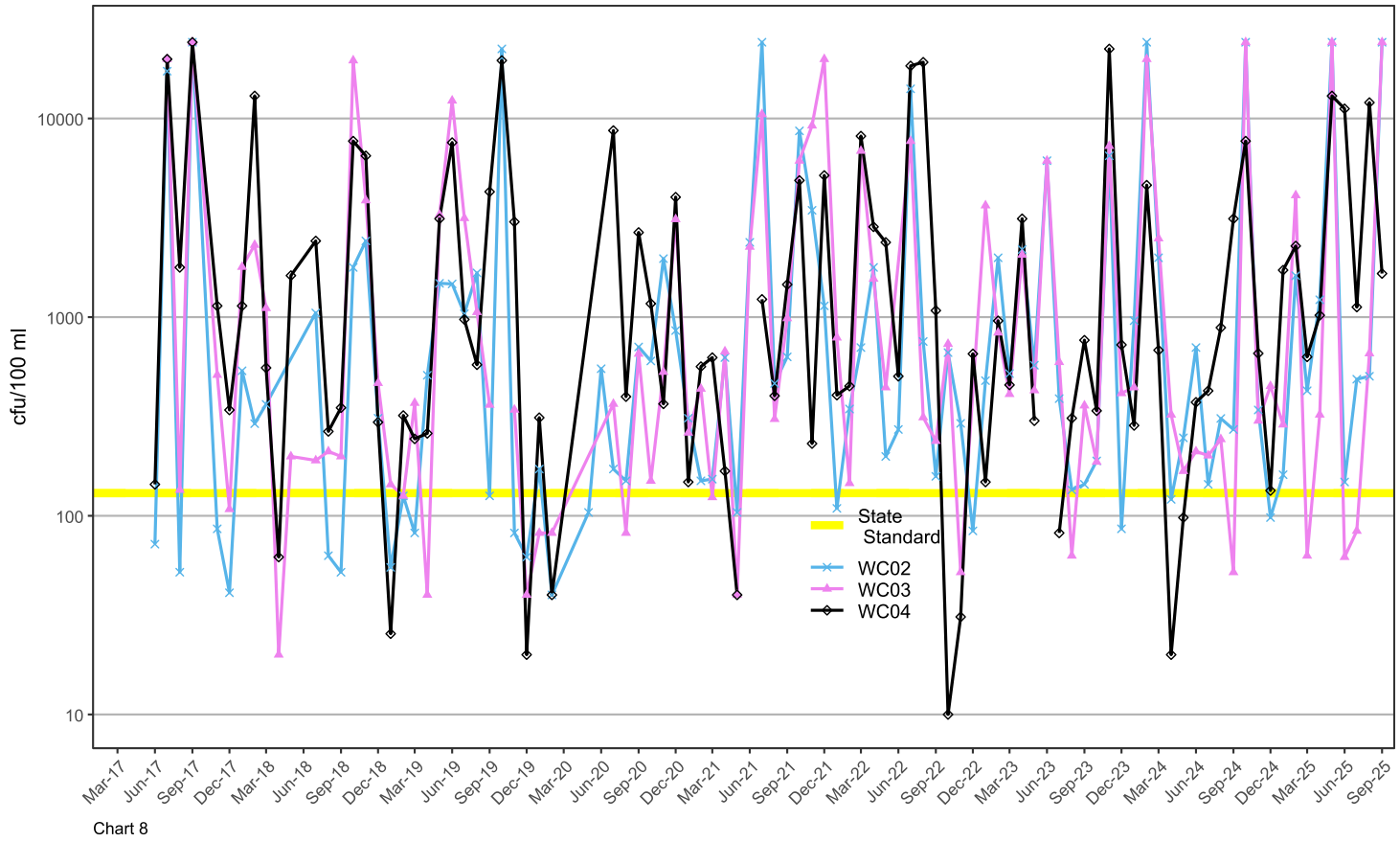
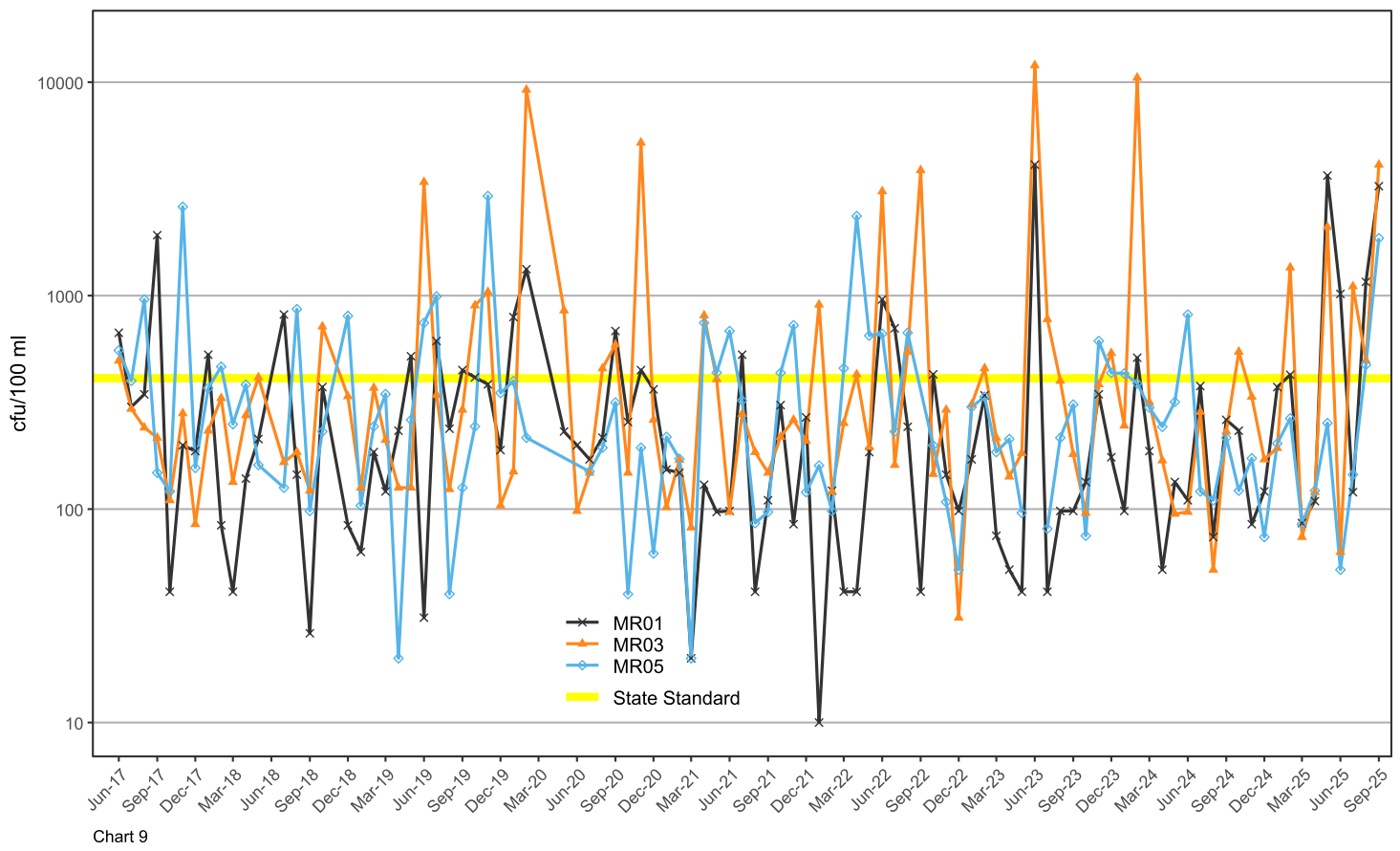


Chart 8


E.coli Tracking
Lower Miami River
cfu/100 ml
10000
1000
100
10
MR01
MR03
MR05
State Standard
Jun-17
Sep-17
Dec-17
Mar-18
Jun-18
Sep-18
Dec-18
Mar-19
Jun-19
Sep-19
Dec-19
Mar-20
Jun-20
Sep-20
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Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
Sep-25
Chart 9

E.coli Tracking

Upper Miami River

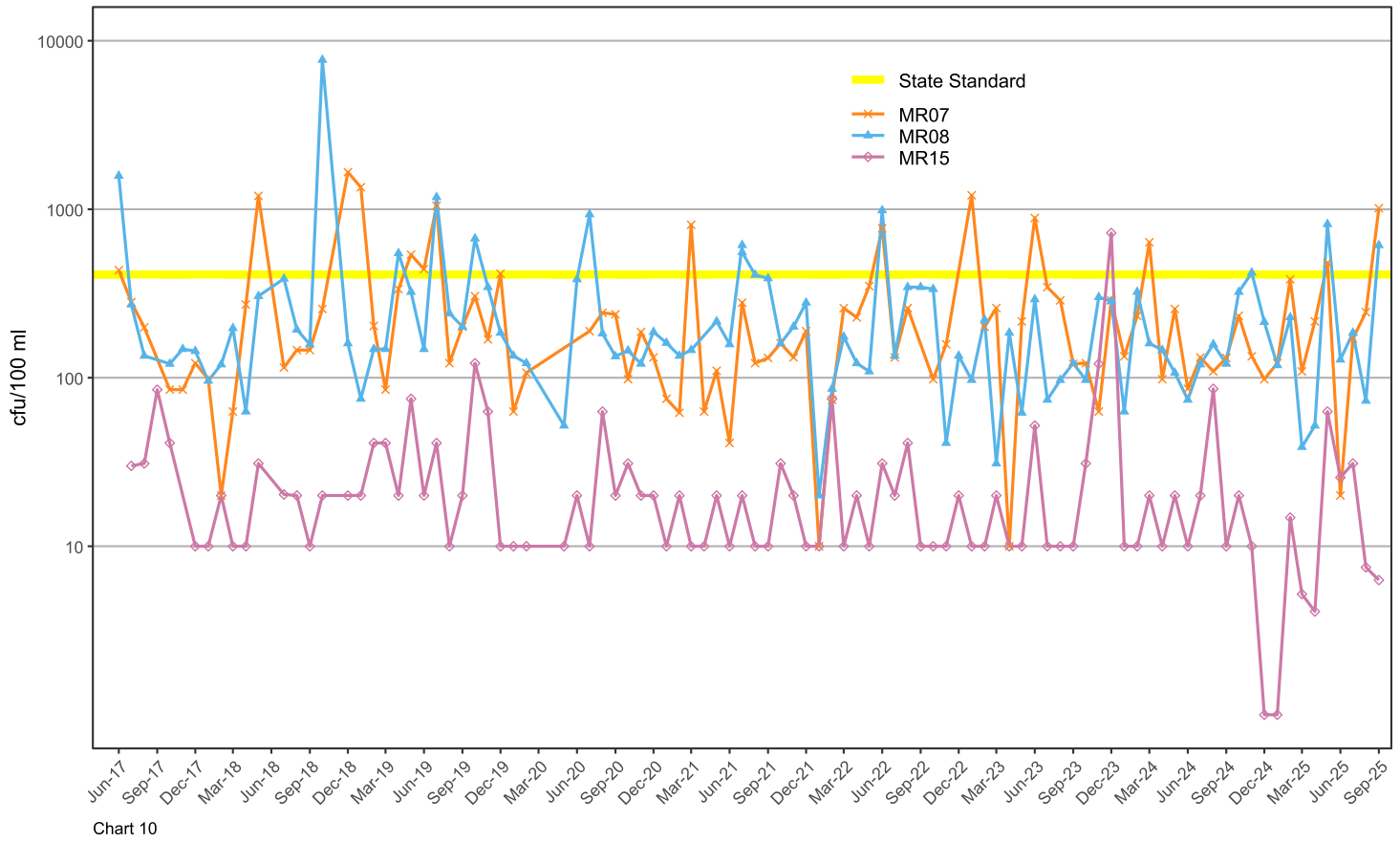
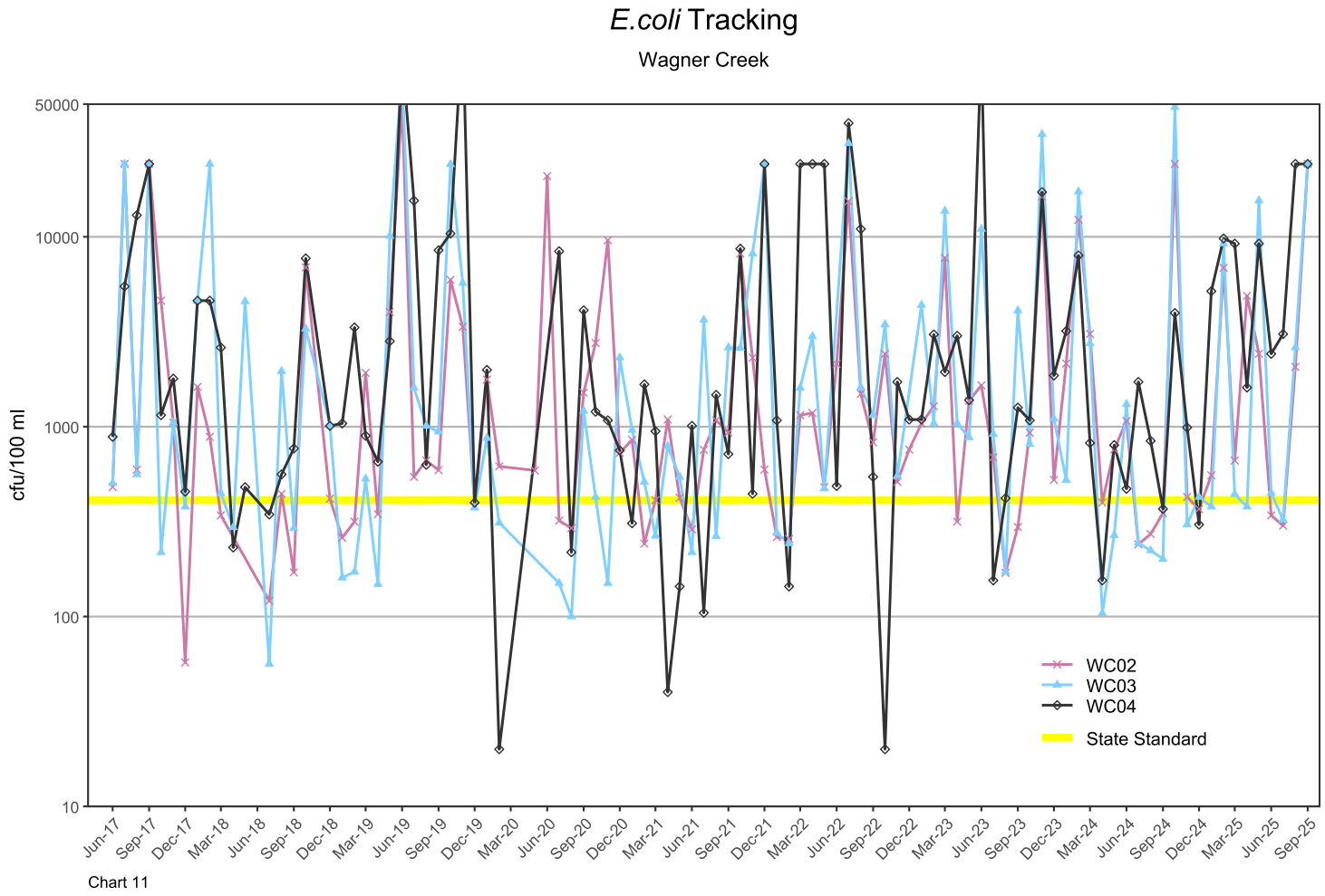


Chart 10


E.coli Tracking
Wagner Creek
cfu/100 ml
50000
10000
1000
100
10
Jun-17
Sep-17
Dec-17
Mar-18
Jun-18
Sep-18
Dec-18
Mar-19
Jun-19
Sep-19
Dec-19
Mar-20
Jun-20
Sep-20
Dec-20
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Jun-22
Sep-22
Dec-22
Mar-23
Jun-23
Sep-23
Dec-23
Mar-24
Jun-24
Sep-24
Dec-24
Mar-25
Jun-25
Sep-25
WC02
WC03
WC04
State Standard
Chart 11

Turbidity Tracking

Ten Year Period: 2016-2025
Lower Miami River

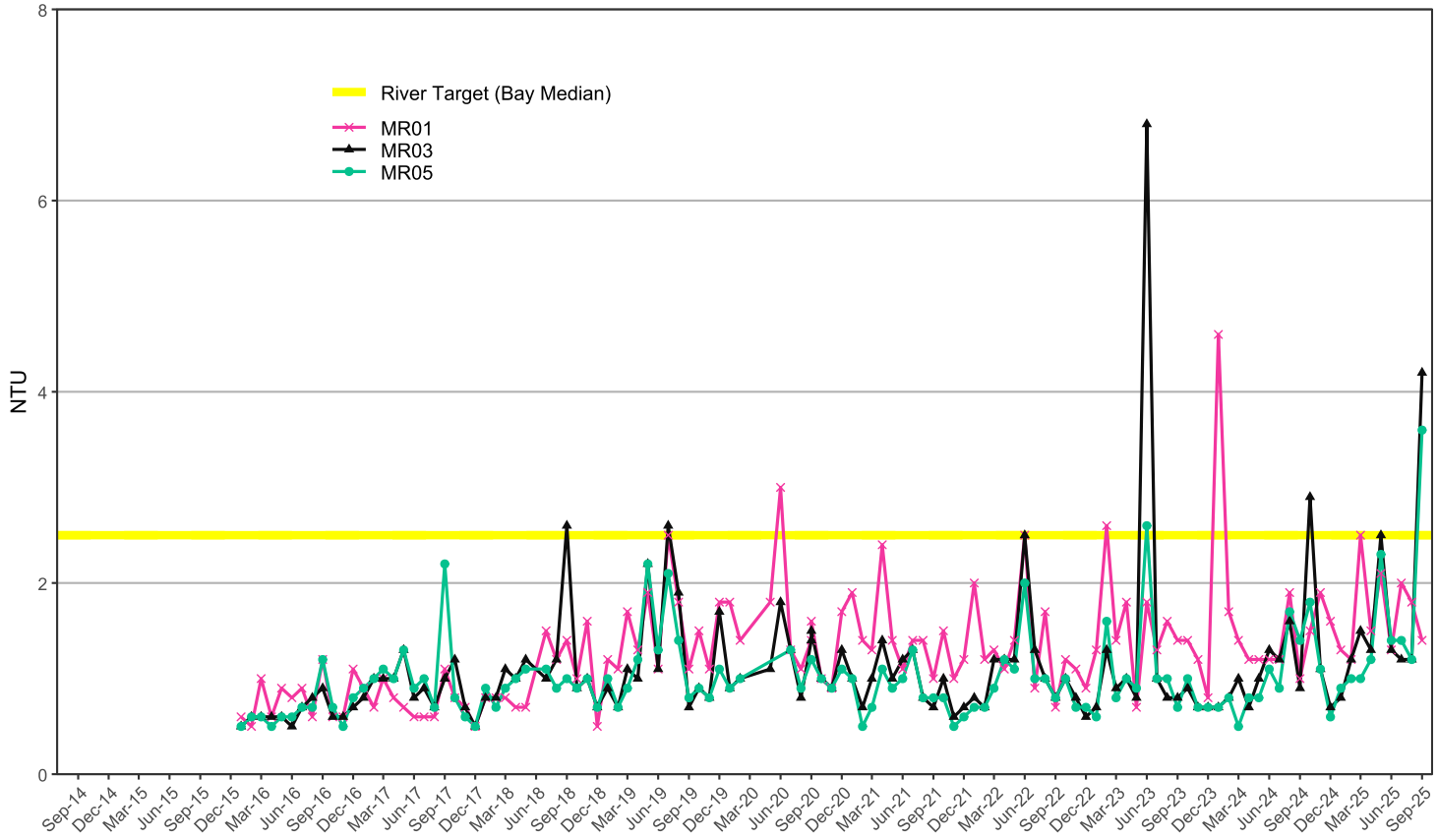

Chart 12

Turbidity Tracking

Ten Year Period: 2016-2025
Upper Miami River

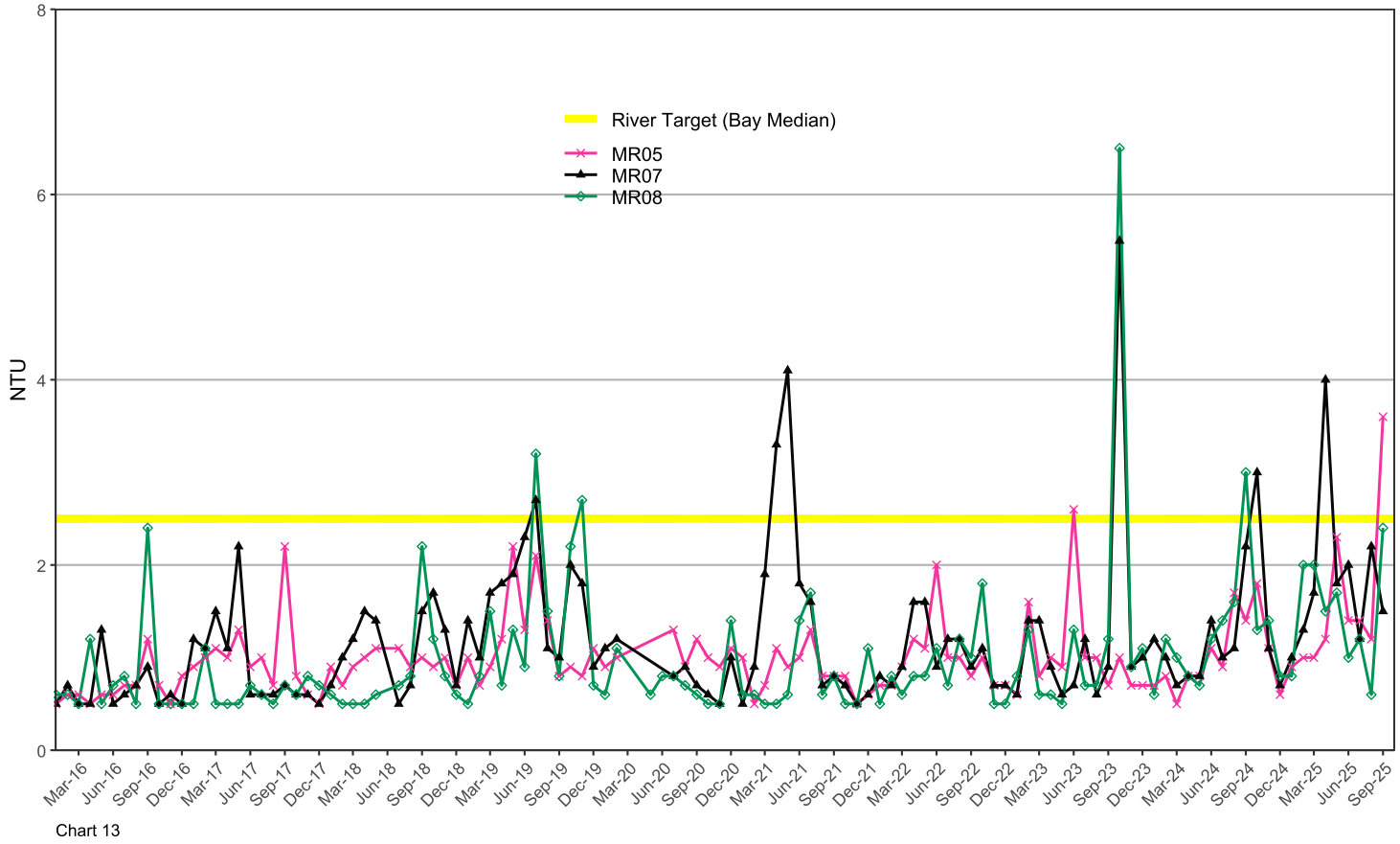

Chart 13

Turbidity Tracking

Ten Year Period: 2016-2025

Wagner Creek

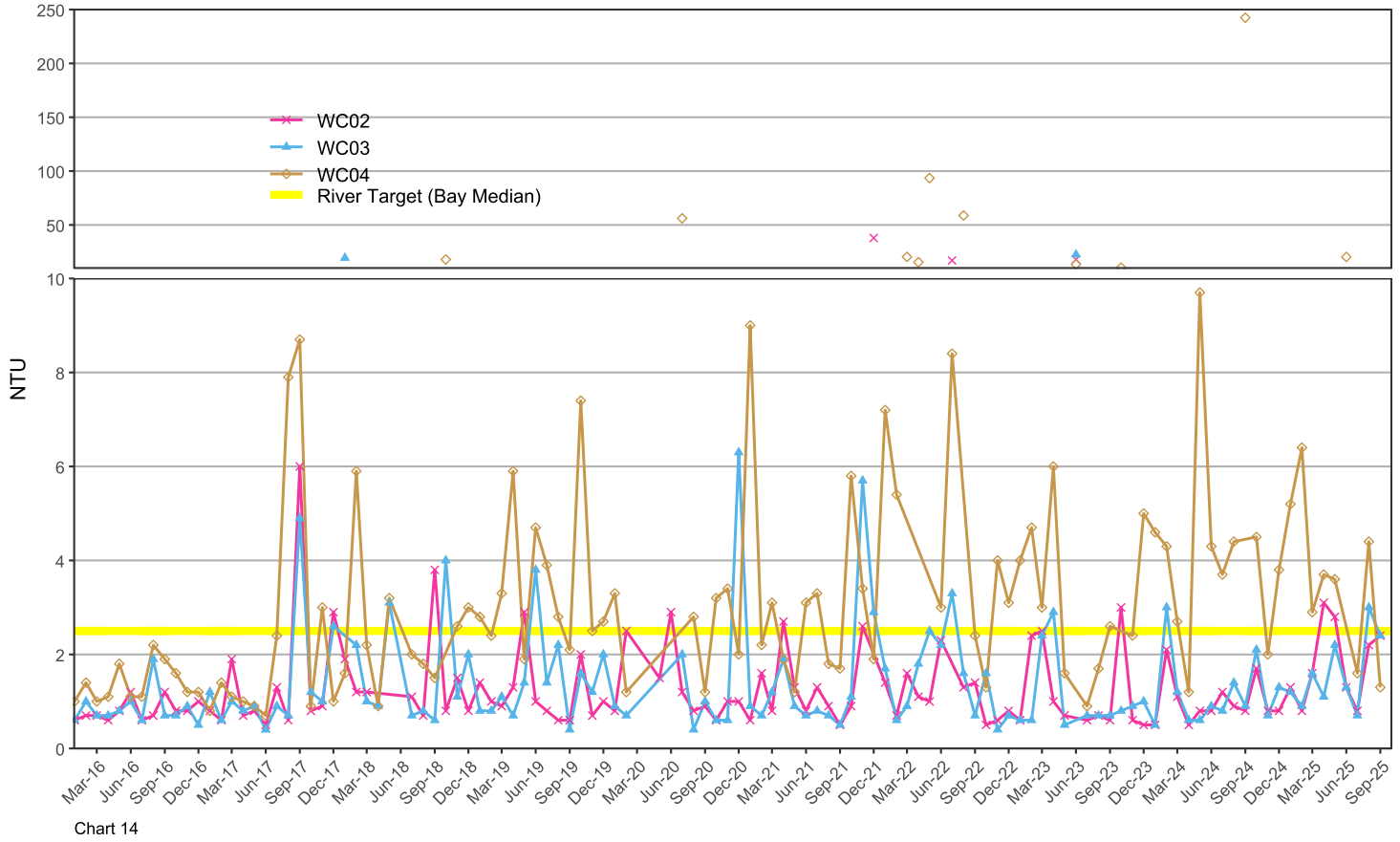

Chart 14