

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

Fourth Quarterly Report, 2013
(October-December)

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 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 and Wagner Creek). During the Fourth Quarter of 2013 samples were collected at each of the ten stations in the River on First Tuesday of the first full week in October, November, and December. 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

See **Figures 1 - 3** below for maps that depict where monthly results for stations in the Miami River and vicinity exceed the single sample standard of (800 cfu/100ml). **Figure 4** is a quarterly composite of Fecal Coliform results from station locations on the Miami River and its tributaries showing how frequently the results at each station exceeded the State standard of 400 cfu/100ml (used where multiple samples are collected) during the Fourth Quarter of the year. Table 1 lists the observed Fecal Coliform levels in Wagner Creek from October – December 2013.

“MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT”

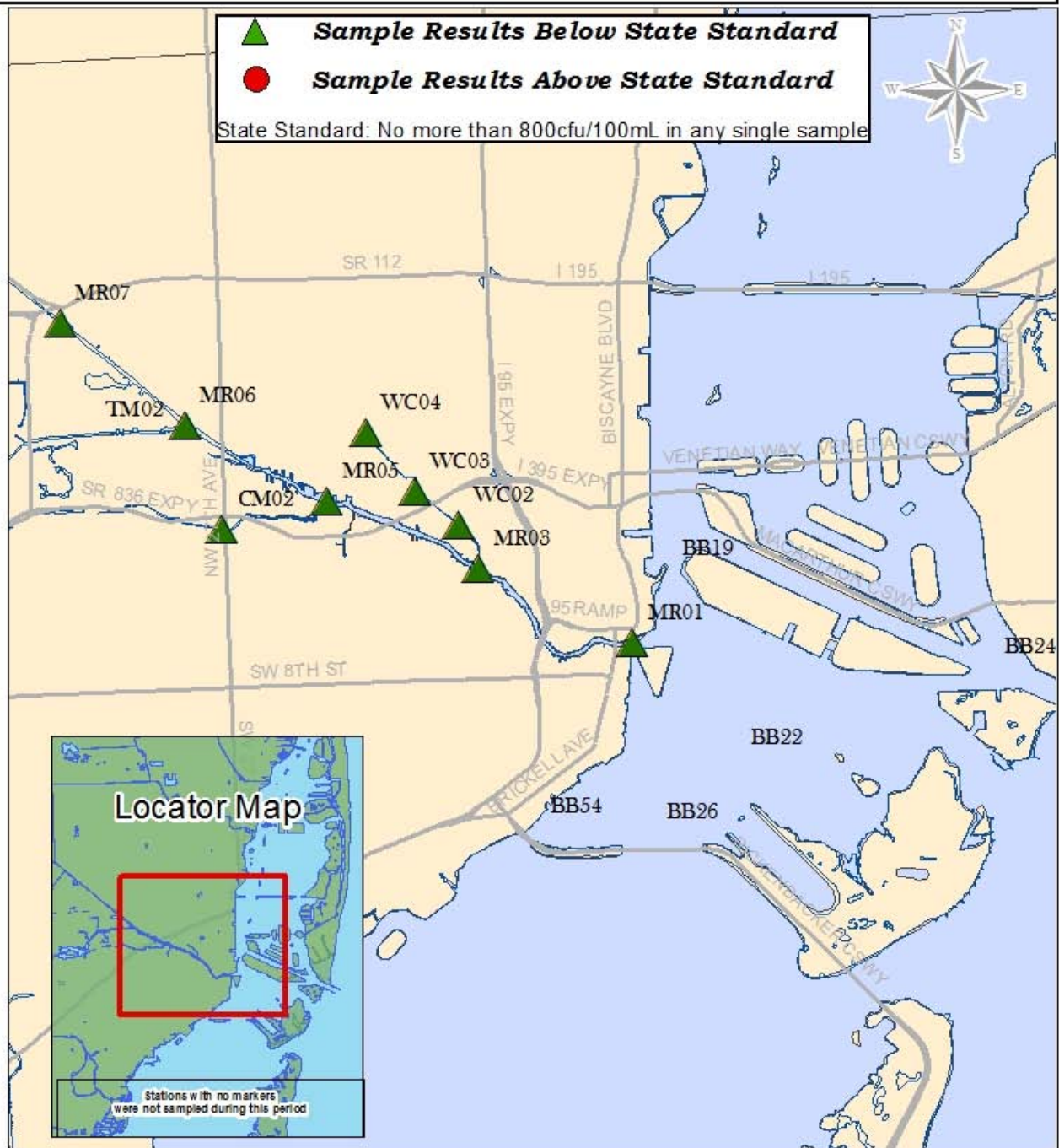
Action Item Matrix Quarterly Progress Report

Biscayne Bay Surface Water Quality Monitoring Program

Fecal Coliform Bacteria Sample Compliance

October 2013

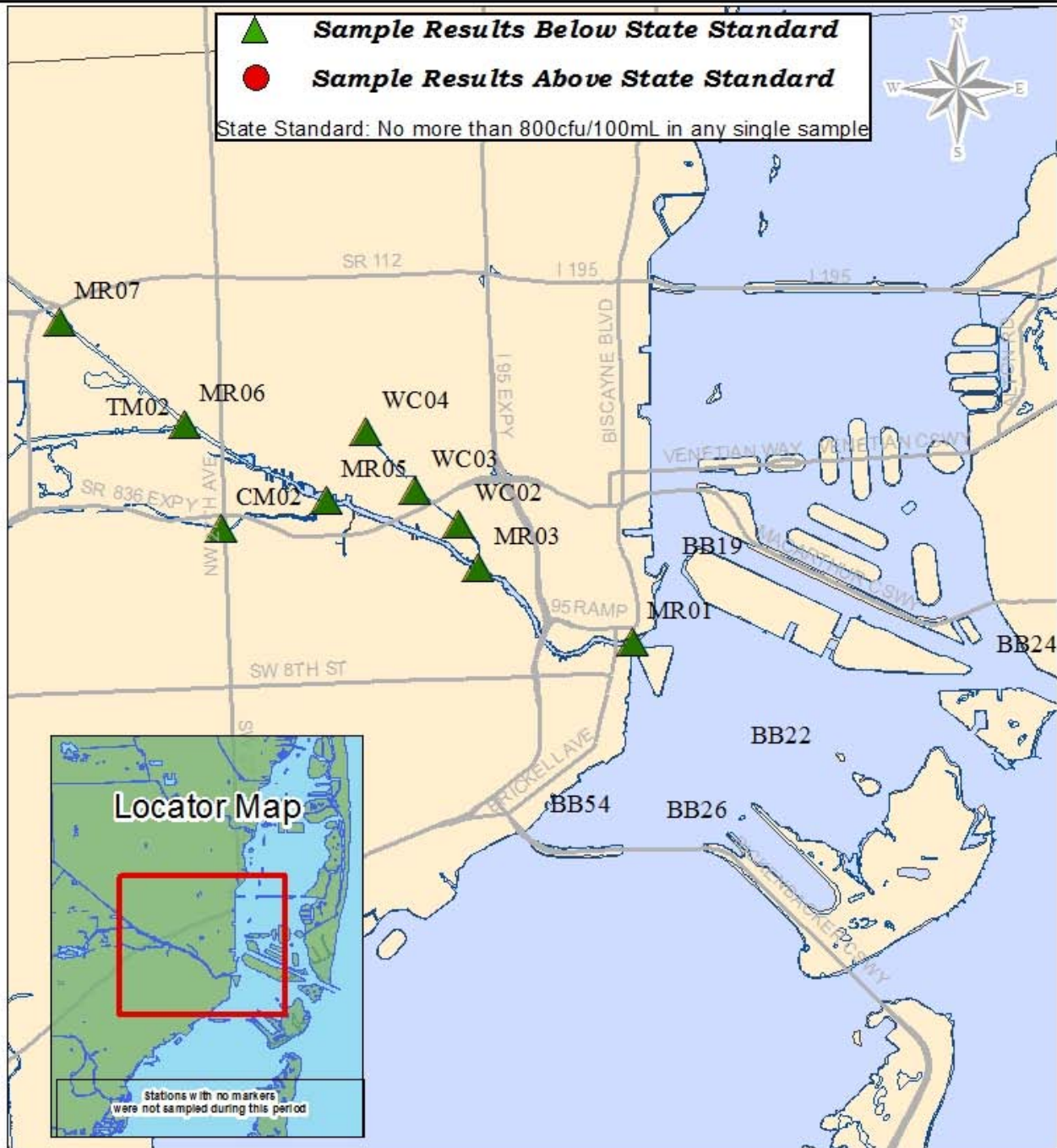
Miami River and Tributaries



Biscayne Bay Surface Water Quality Monitoring Program
Fecal Coliform Bacteria Sample Compliance
November 2013
Miami River and Tributaries



Biscayne Bay Surface Water Quality Monitoring Program
Fecal Coliform Bacteria Sample Compliance
December 2013
Miami River and Tributaries



Biscayne Bay Surface Water Quality Monitoring Program

Quarterly Summary of Fecal Coliform Sample Compliance

October to December 2013

Miami River and Tributaries

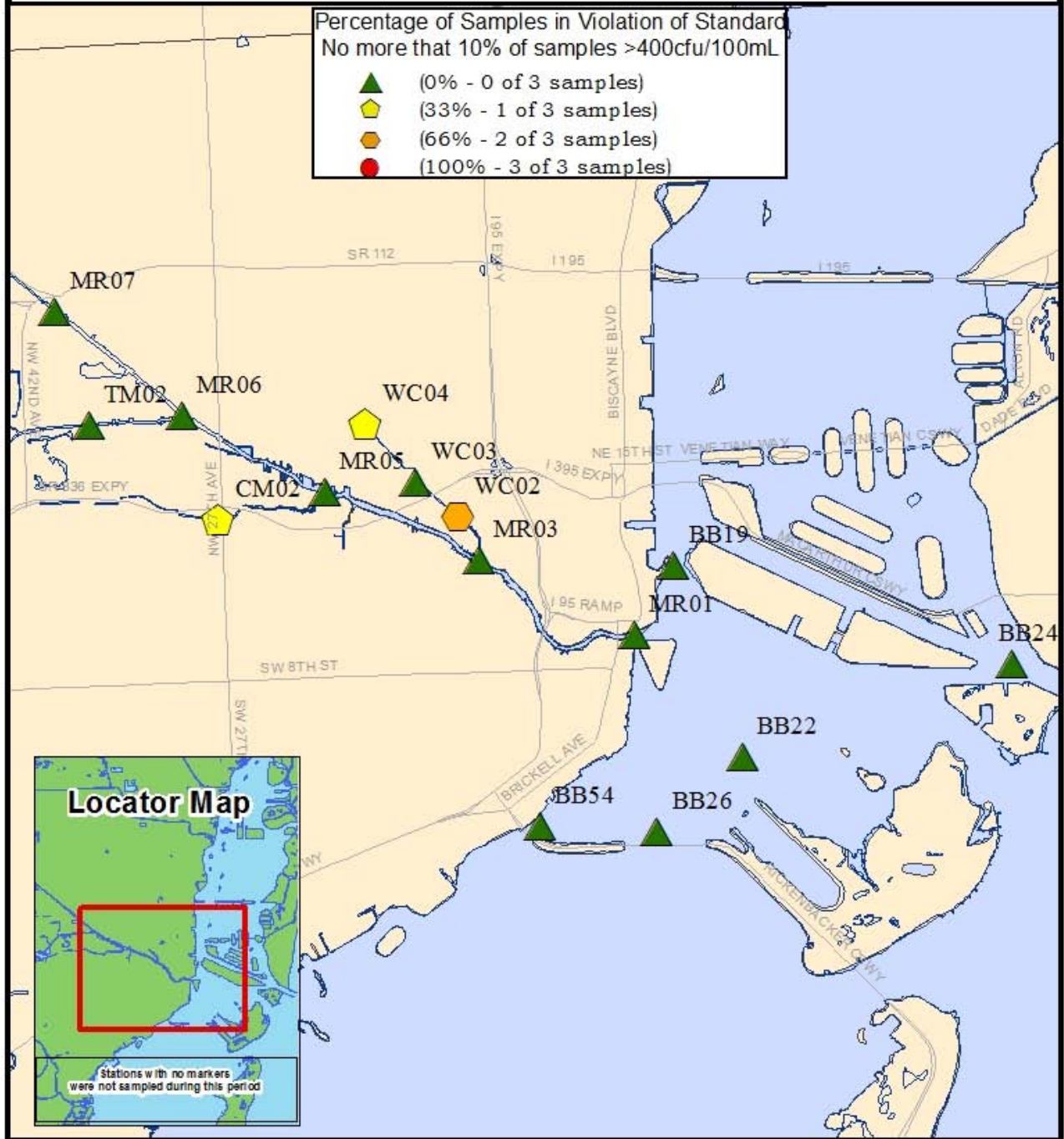


Table 1.

MONTHLY FECAL COLIFORM LEVELS (cfu's/100 ml) IN WAGNER CREEK

| | MR03 | WC02 | WC03 | WC04 |
|-----------------|-------------|-------------|-------------|-------------|
| October | 190 | 500 | 90 | 130 |
| November | 210 | 700 | 250 | 530 |
| December | 180 | 270 | 240 | 195 |

A” *” indicates results that exceed the State’s Standard (800 cfu/100ml); a “0” indicates that the true value was below the method detection limit.

Fourth Quarterly Report, 2013
(October - December)

Action Item:

- 5. Management
 - d. Establish standardized water quality tracking for key characteristics

Lead Agency: Miami-Dade County DERM

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Action Item Status:

This report presents selected results of the water quality monitoring that occurred in the Fourth Quarter (October - December) of 2013. Due to the extensive nature of the database, it is not feasible to track each parameter collected at each station for the period of record. Therefore, representative stations and parameters have been selected to achieve the objective of this Action Item. Current water quality trends will be tracked by plotting the actual sample results of several key parameters (see **Charts 1– 5**) for graphs of ammonia nitrogen, total phosphate, fecal coliform, and turbidity data) from a station representing the Miami River (MR03) against the same parameters evaluated at another station in adjacent Biscayne Bay (BB22). Chart 4 represents the Fecal Coliform levels for sampling stations within Wagner Creek (WC02, WC03, and WC04). See maps presented under action item 4.a for station locations. Data collected during the most recent quarter are plotted in time series along with historic data from the previous ten-year (2003 - 2013) period. For further comparison, the target values developed under Action Item 4.f are plotted, and where applicable, the existing state or county standard for each parameter is shown.

Chart 1.

Ammonia Nitrogen Tracking Ten Year Period: 2003 - 2013 Fourth Quarter 2013 Data (Oct-Dec) Highlighted

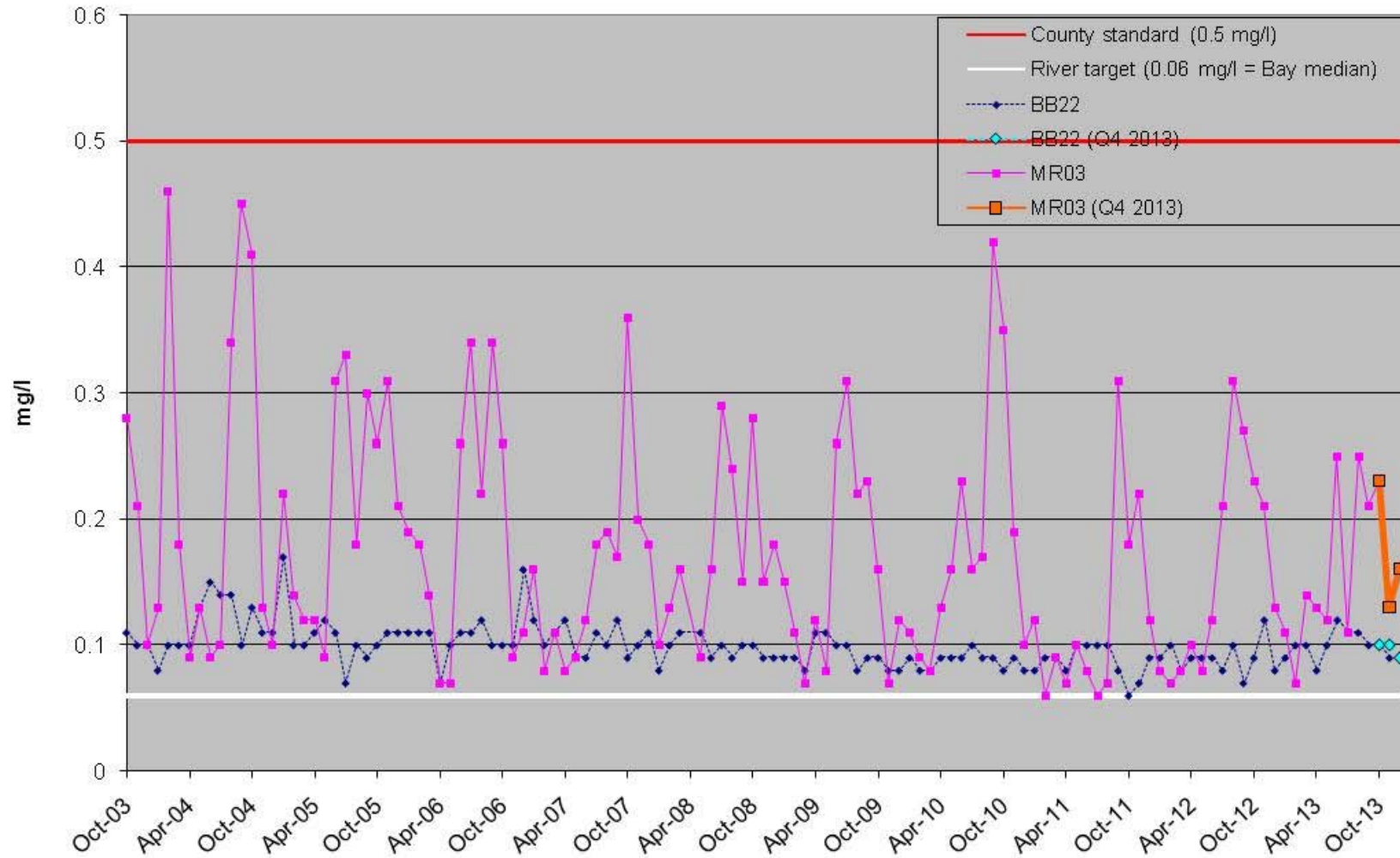


Chart 2.

Total Phosphate Tracking Ten Year Period: 2003 - 2013 Fourth Quarter 2014 Data (Oct-Dec) Highlighted

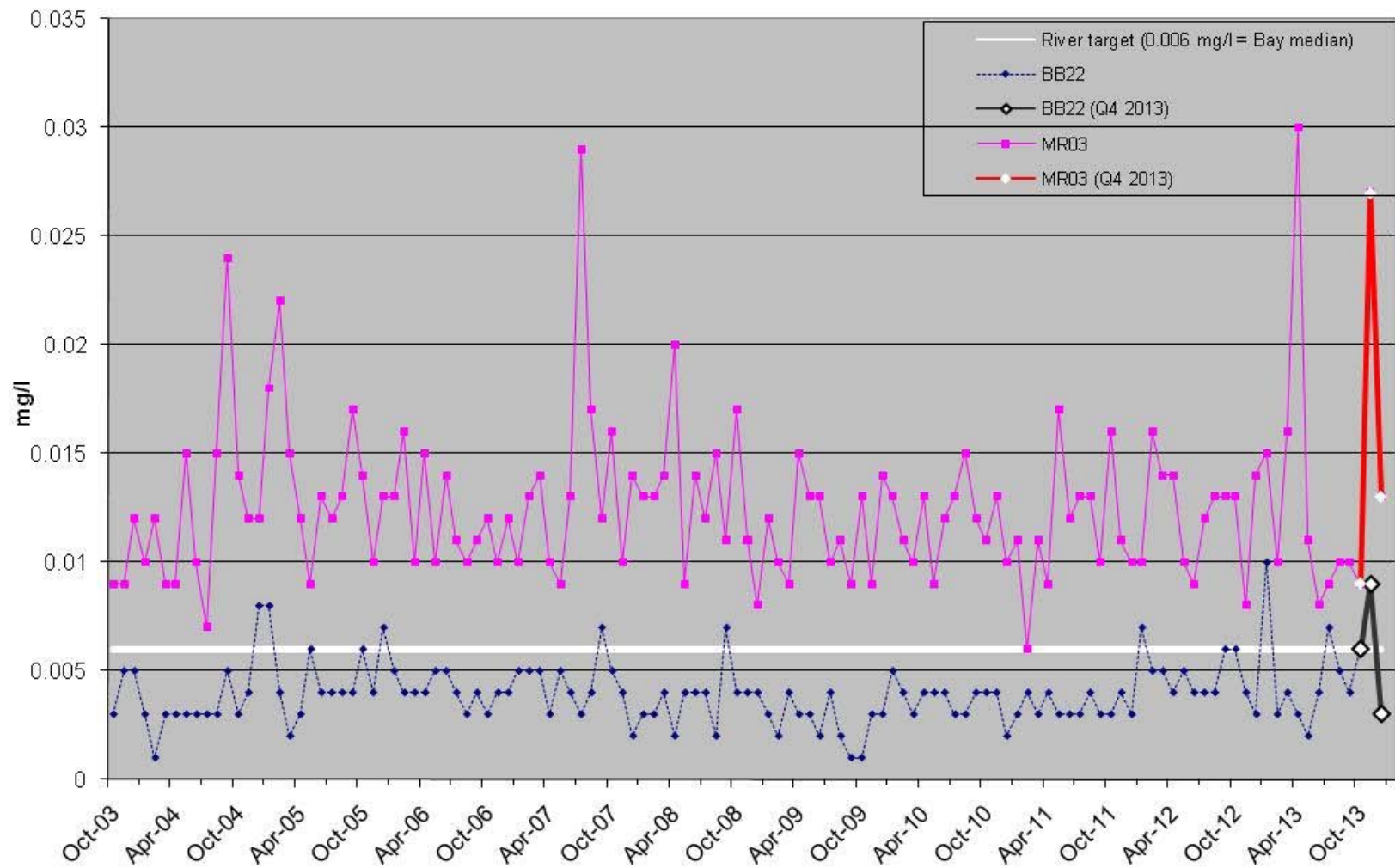


Chart 3.

Fecal Coliform Tracking Ten Year Period: 2003 - 2013 Fourth Quarter 2013 Data (Oct-Dec) Highlighted

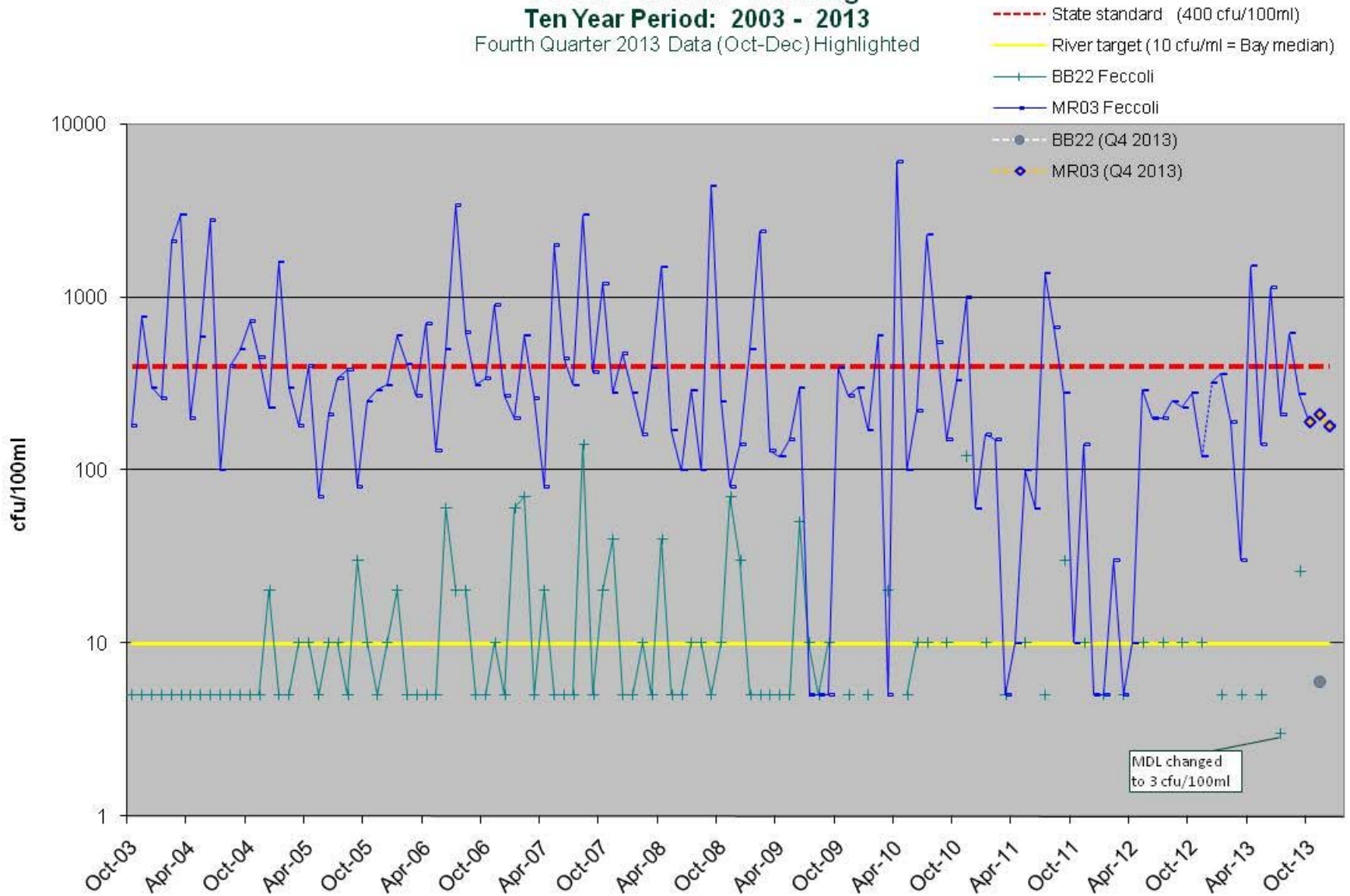


Chart 4.

Fecal Coliform Tracking Ten Year Period: 2003 - 2013 (Wagner Creek Stations Only)

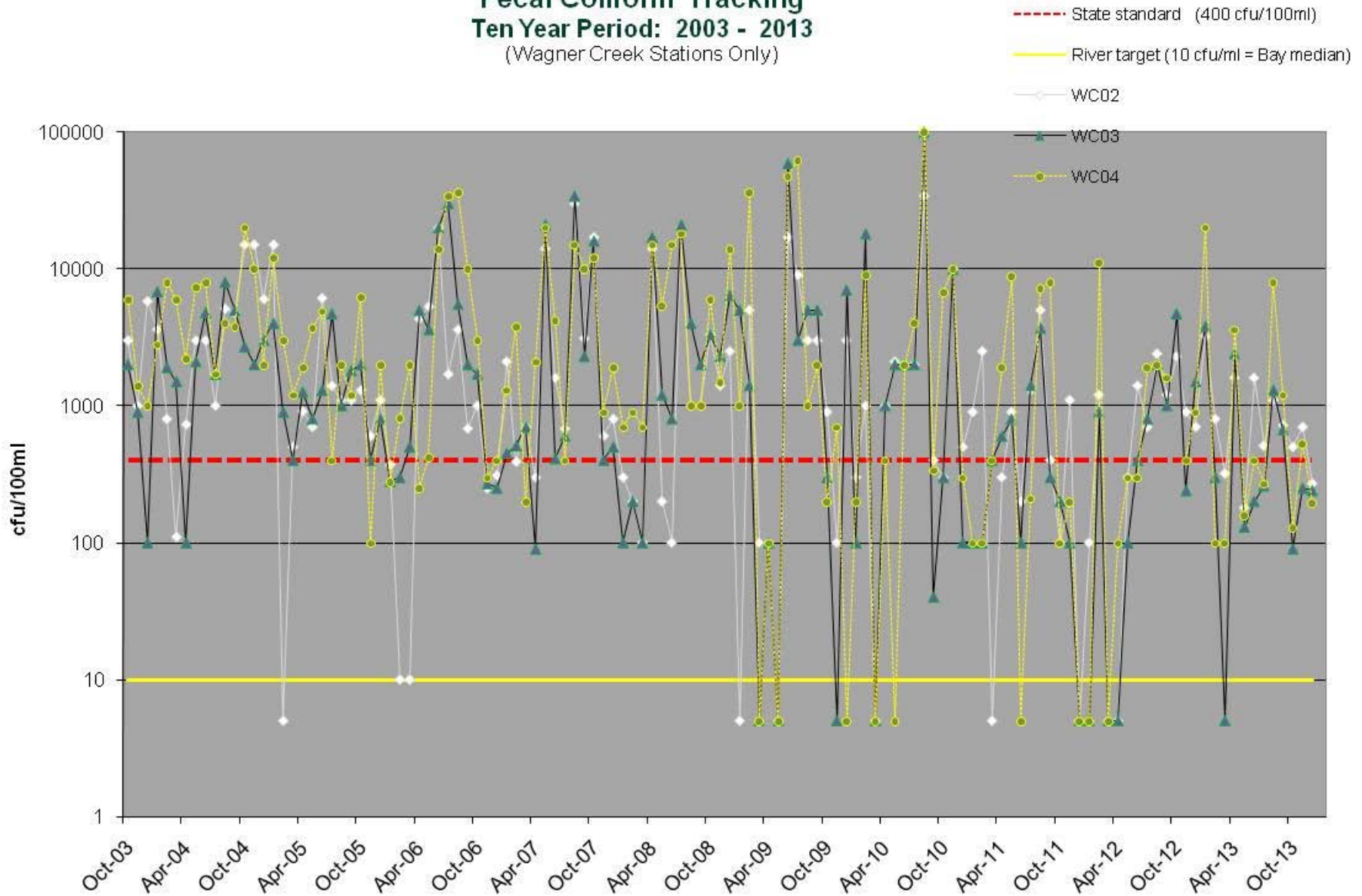


Chart 5.

Turbidity Tracking Ten Year Period: 2003 - 2013 Fourth Quarter 2013 Data (Oct-Dec) Highlighted

