

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

First Quarterly Report, 2010
(January - March)

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
Contact Name	Stephen Blair or Omar Abdelrahman, DERM
Address	701 NW 1 st Court Miami, FL 33136
Telephone	(305) 372-6853 or (305) 372-6872
Fax	(305) 372-6649
E-mail	blairs@miamidade.gov abdelo@miamidade.gov

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 First quarter of 2009 samples were collected at each of the ten stations in the River on January 5, February 2, and March 2. Costs for sampling (including salaries and fringe and analysis) have been calculated at approximately \$394 per station per month. Since the beginning of this current 2009-2010 fiscal year, the sampling regime has been modified and Total Coliform sampling has been dropped from the program. Fecal Coliform sampling has been retained, but for some stations (i.e. BB19, BB22, BB26, and BB54) the frequency has been reduced to a bimonthly cycle, while at BB16 and MR04, coliform sampling has been discontinued. A matrix table attached to this report outlines the frequency of parameters collected at each station on the Miami River during DERM's monthly "Bay Run". Two sewage spills were reported on or around the Tamiami Canal which empties into the Miami River during the quarter. Such notification typically results in additional an emergency sampling response.

See **Figures 1 - 3** below for maps showing monthly Fecal Coliform results from January – March at stations in the Miami River and vicinity. **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 County standard (1000 cfu/100ml) during the First quarter of the year. Table 1 lists the observed Fecal Coliform levels in Wagner Creek form January – March 2009.

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

Biscayne Bay Surface Water Quality Monitoring Program

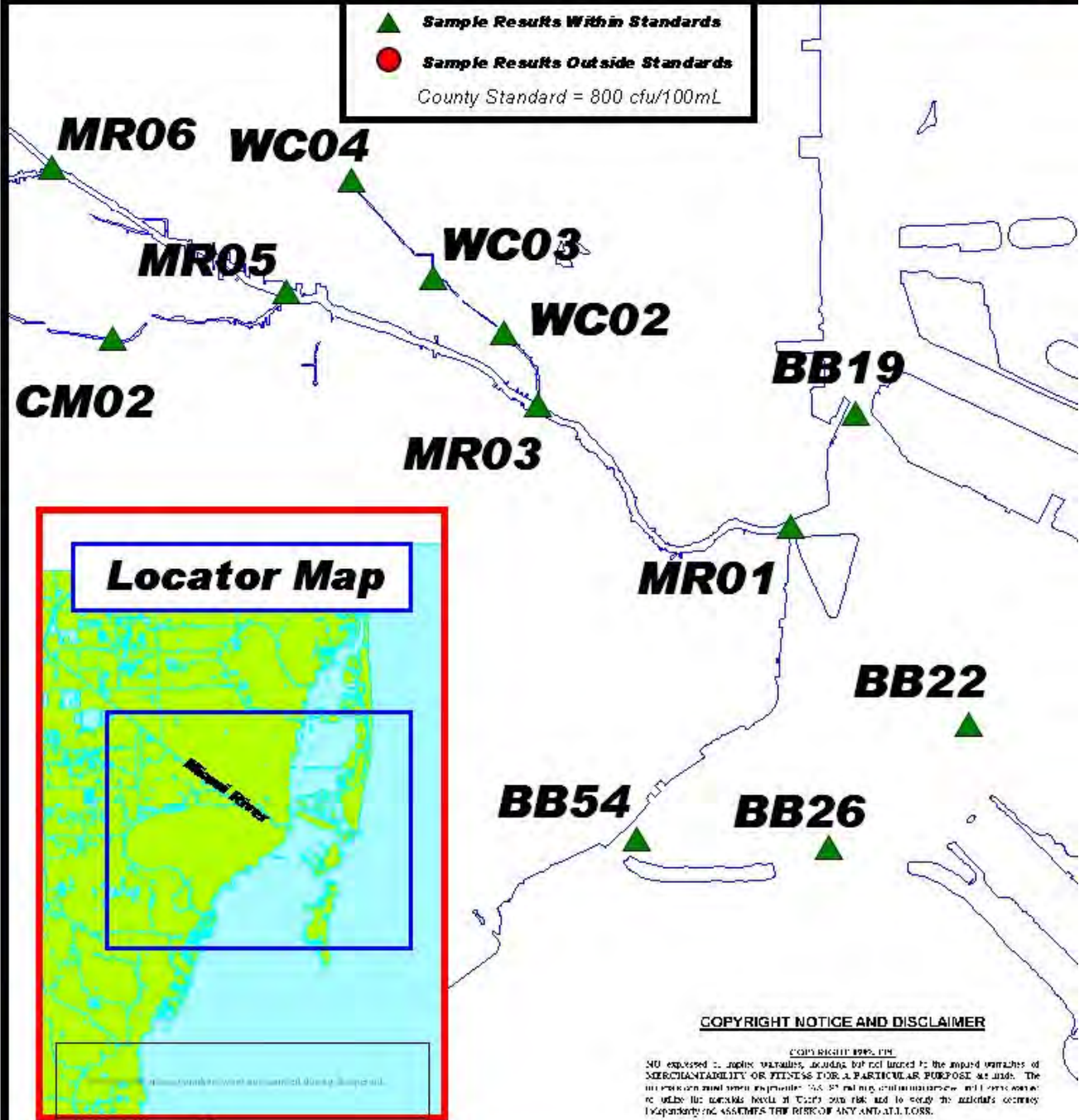
Water Quality Sample Compliance

January 2010

Miami River & Tributaries



▲ **Sample Results Within Standards**
● **Sample Results Outside Standards**
County Standard = 800 cfu/100mL



COPYRIGHT NOTICE AND DISCLAIMER

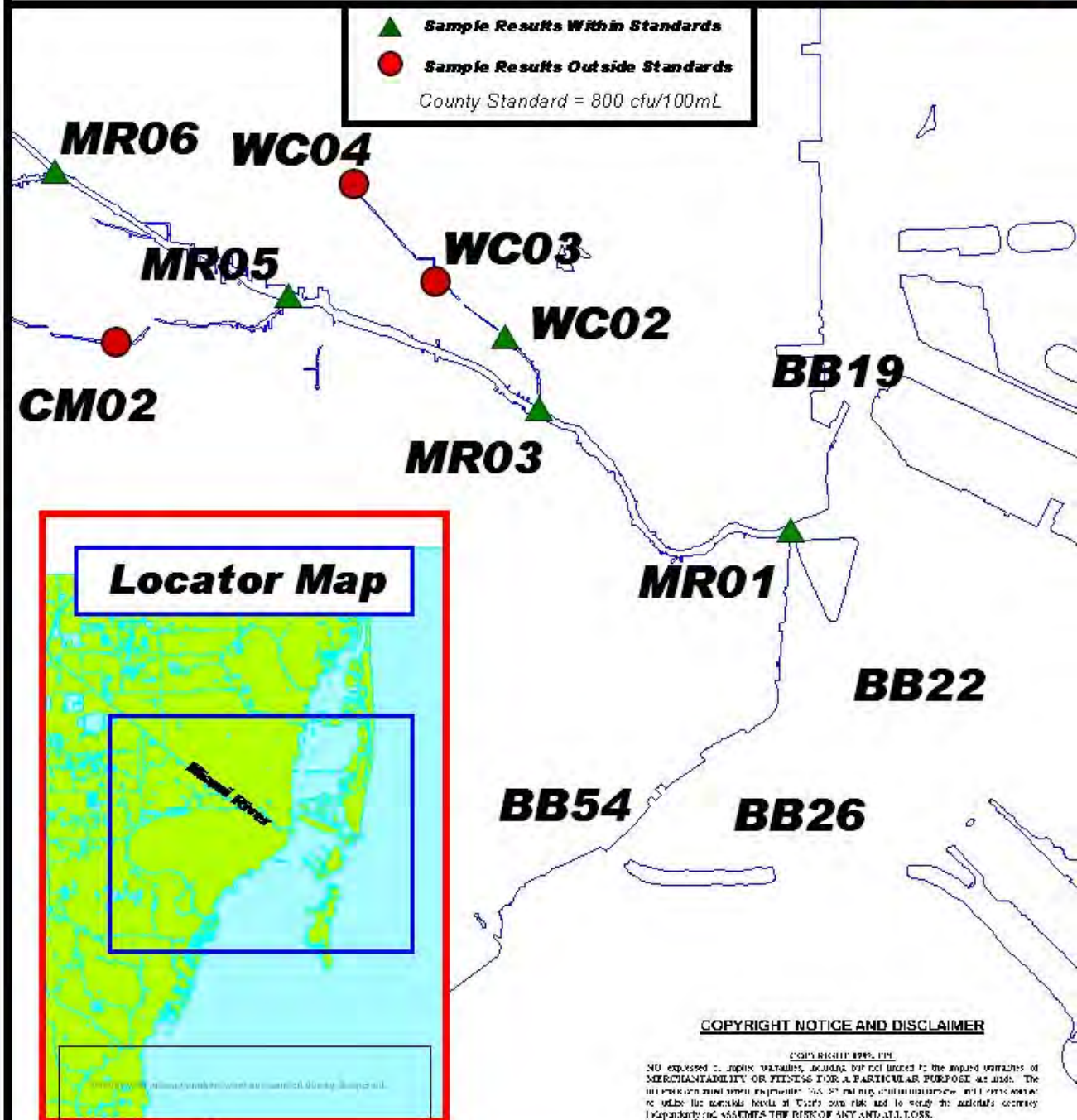
COPYRIGHT 1995, CM
NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE MADE. THE INFORMATION AND DATA ARE PROVIDED "AS IS" AND ANY AND ALL WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, ARE HEREBY DISCLAIMED. THE USER ASSUMES THE RISK OF ANY AND ALL LOSS.

Biscayne Bay Surface Water Quality Monitoring Program

Water Quality Sample Compliance

February 2010

Miami River & Tributaries



Biscayne Bay Surface Water Quality Monitoring Program

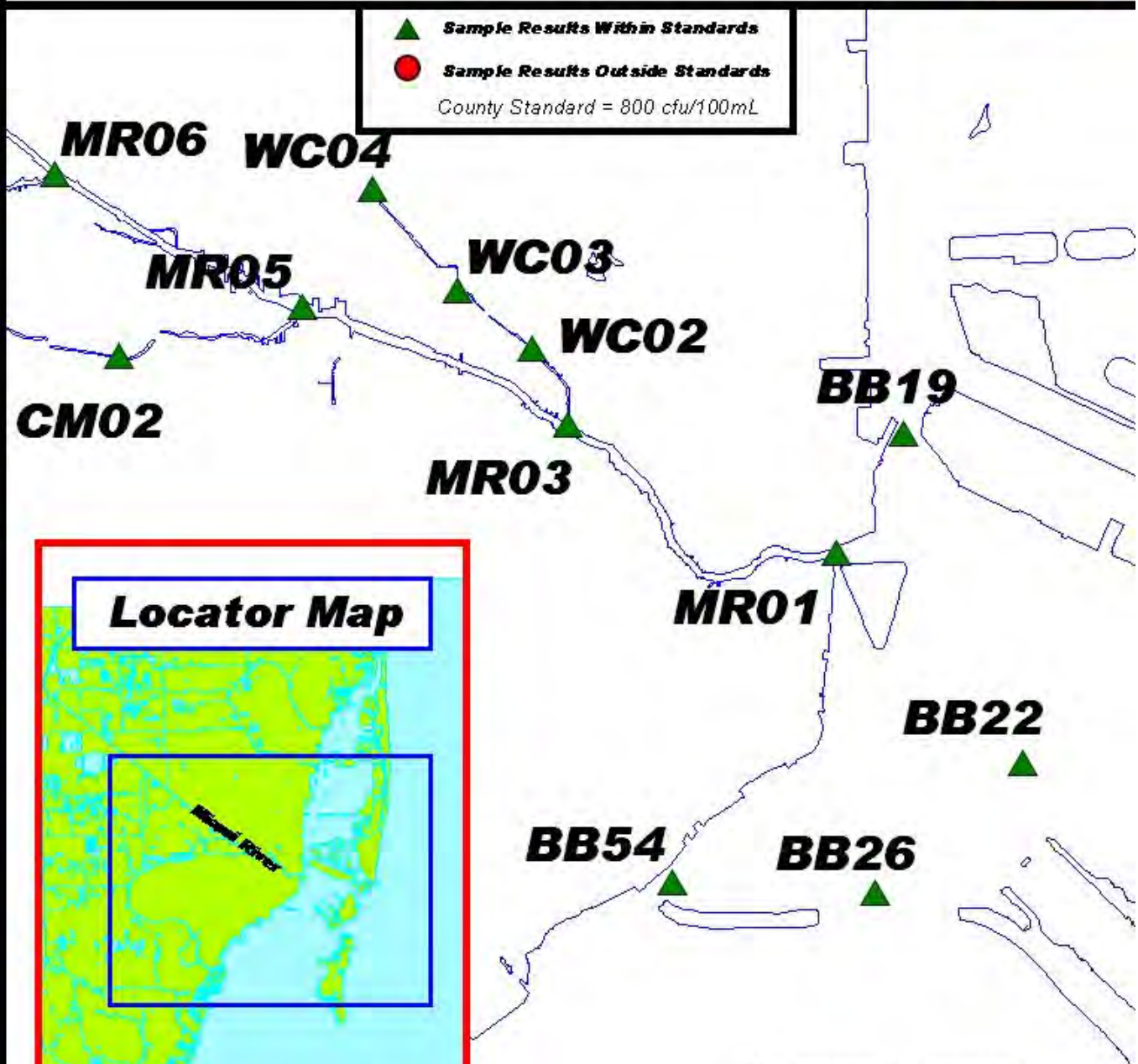
Water Quality Sample Compliance

March 2010

Miami River & Tributaries



▲ Sample Results Within Standards
 ● Sample Results Outside Standards
 County Standard = 800 cfu/100mL



COPYRIGHT NOTICE AND DISCLAIMER

COPYRIGHT 1995, DPE
 NO EXPRESS OR IMPLIED WARRANTY, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE. THE INFORMATION AND DATA ARE PROVIDED "AS IS" WITHOUT WARRANTY, AND THERE WILL BE NO OBLIGATION ON THE PART OF DPE TO CORRECT ANY ERRORS OR OMISSIONS. THE USER ASSUMES THE RISK OF ANY AND ALL LOSS.

Biscayne Bay Surface Water Quality Monitoring Program

Water Quality Sample Compliance

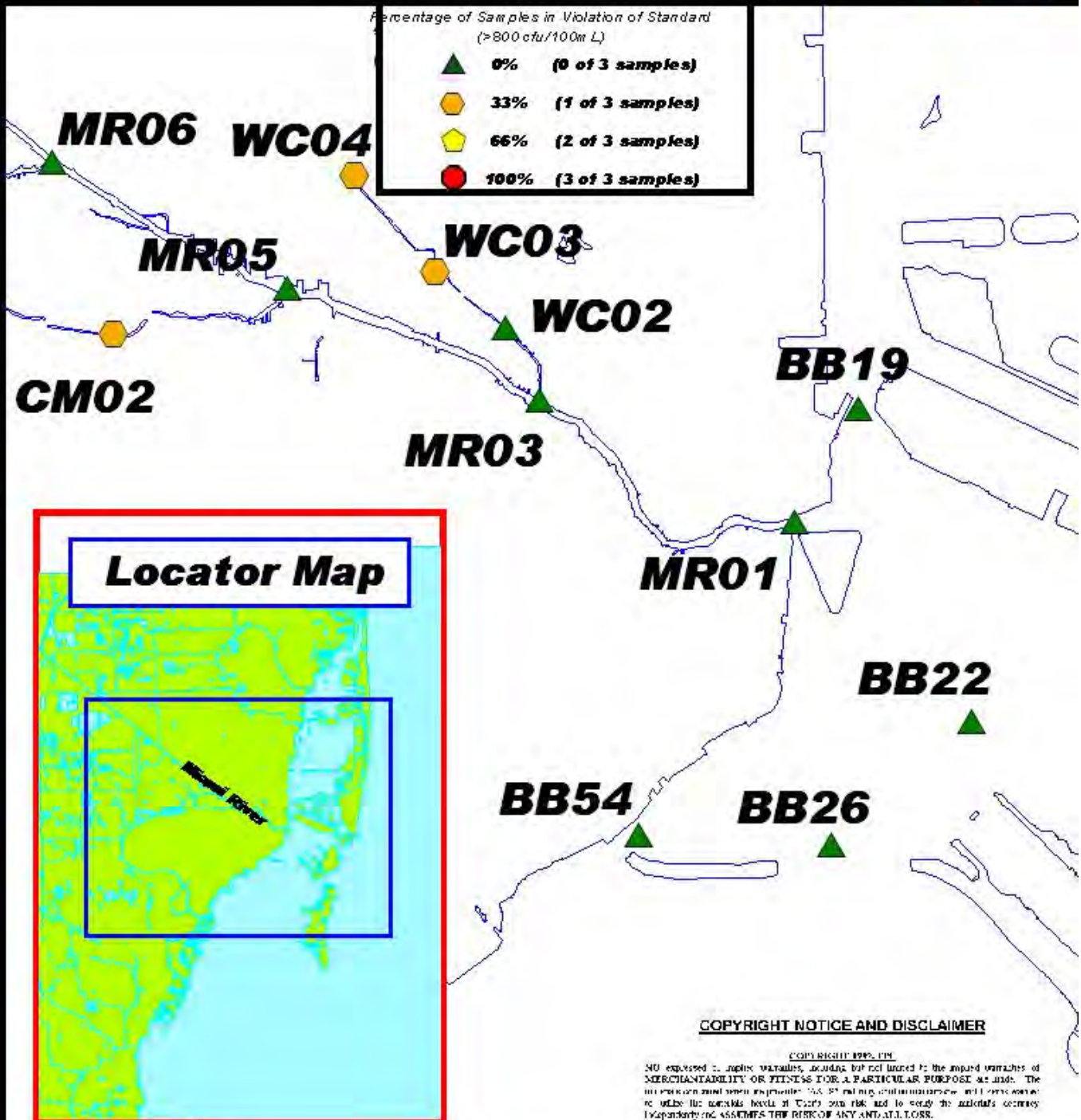
January to March 2010

Miami River & Tributaries



Percentage of Samples in Violation of Standard
(>800 cfu/100m L)

- ▲ 0% (0 of 3 samples)
- 33% (1 of 3 samples)
- 66% (2 of 3 samples)
- 100% (3 of 3 samples)



COPYRIGHT NOTICE AND DISCLAIMER

COPYRIGHT 1995, DPE
NO EXPRESS OR IMPLIED WARRANTY, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE. THE INFORMATION AND DATA ARE PROVIDED "AS IS" WITHOUT WARRANTY, AND THERE WILL BE NO LIABILITY FOR NEGLIGENCE OR OTHERWISE, AND THE USER ASSUMES THE RISK OF ANY AND ALL LOSS.

Table 1.

MONTHLY FECAL COLIFORM LEVELS (cfu's/100 ml) IN WAGNER CREEK				
	WC04	WC03	WC02	MR03
January	200	100	300	170
February	9000*	18000*	1000*	600
March	0	0	0	0

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.

First Quarterly Report, 2009
(January - March)

Action Item:

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

Lead Agency: Miami-Dade County DERM

Contact Name Omar Abdelrahman DERM
Address 701 NW 1ST Court
Miami, FL 33136

Telephone (305) 372-6872

Fax (305) 372-6630

e-mail abdelo@miamidade.gov

Action Item Status:

This report presents selected results of the water quality monitoring that occurred in the First quarter (January- March) of 2010. 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 – 4** 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). See maps presented under action item 4.a for station locations. Data collected at both stations during the most recent quarter are plotted in time series along with historic data from the previous ten-year (2000 - 2010) 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: 2001 - 2010 First Quarter 2010 Data (Jan - Mar) Highlighted

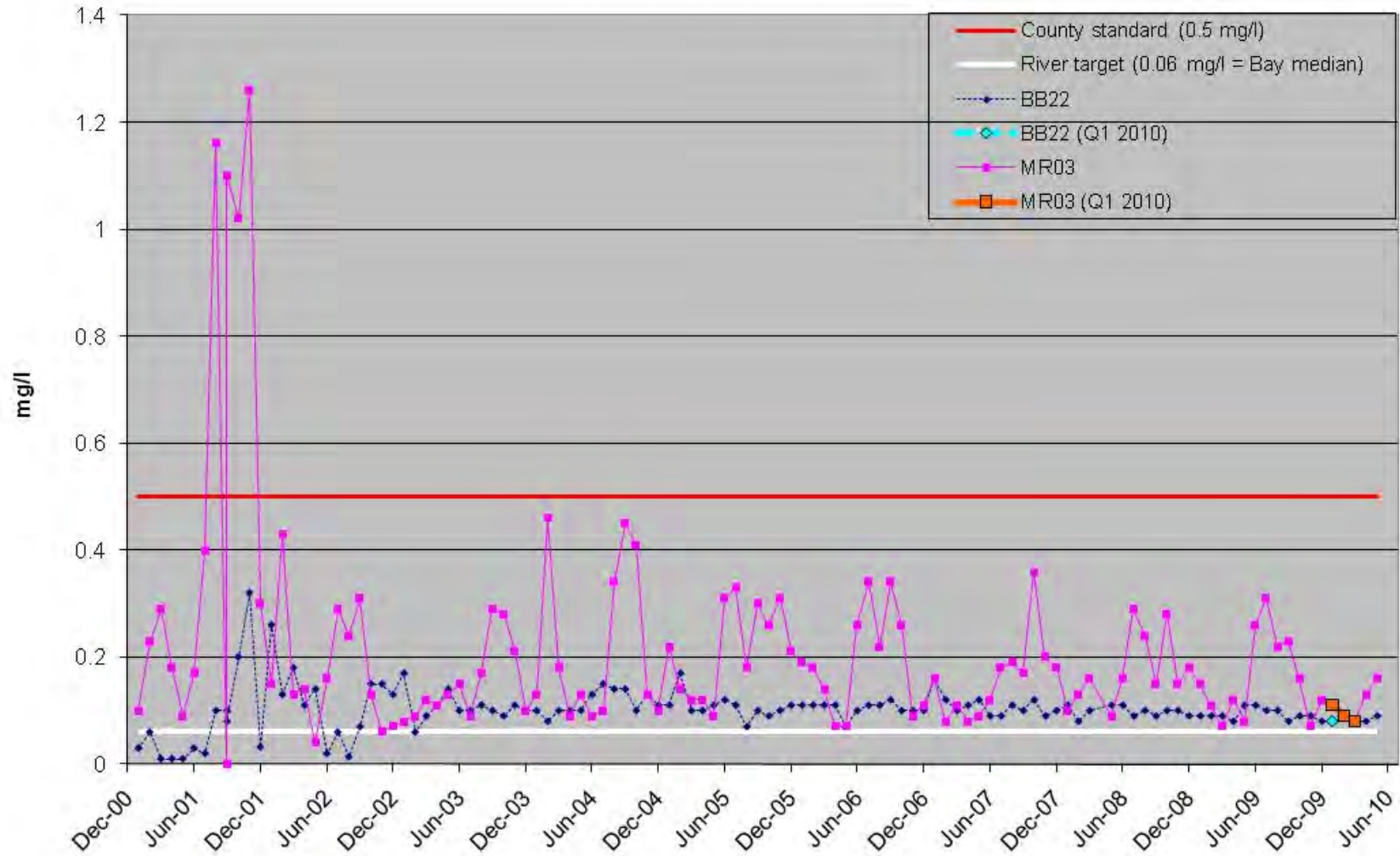


Chart 2.

Total Phosphate Tracking Ten Year Period: 2000 - 2010 First Quarter 2010 Data (Jan - Mar) Highlighted

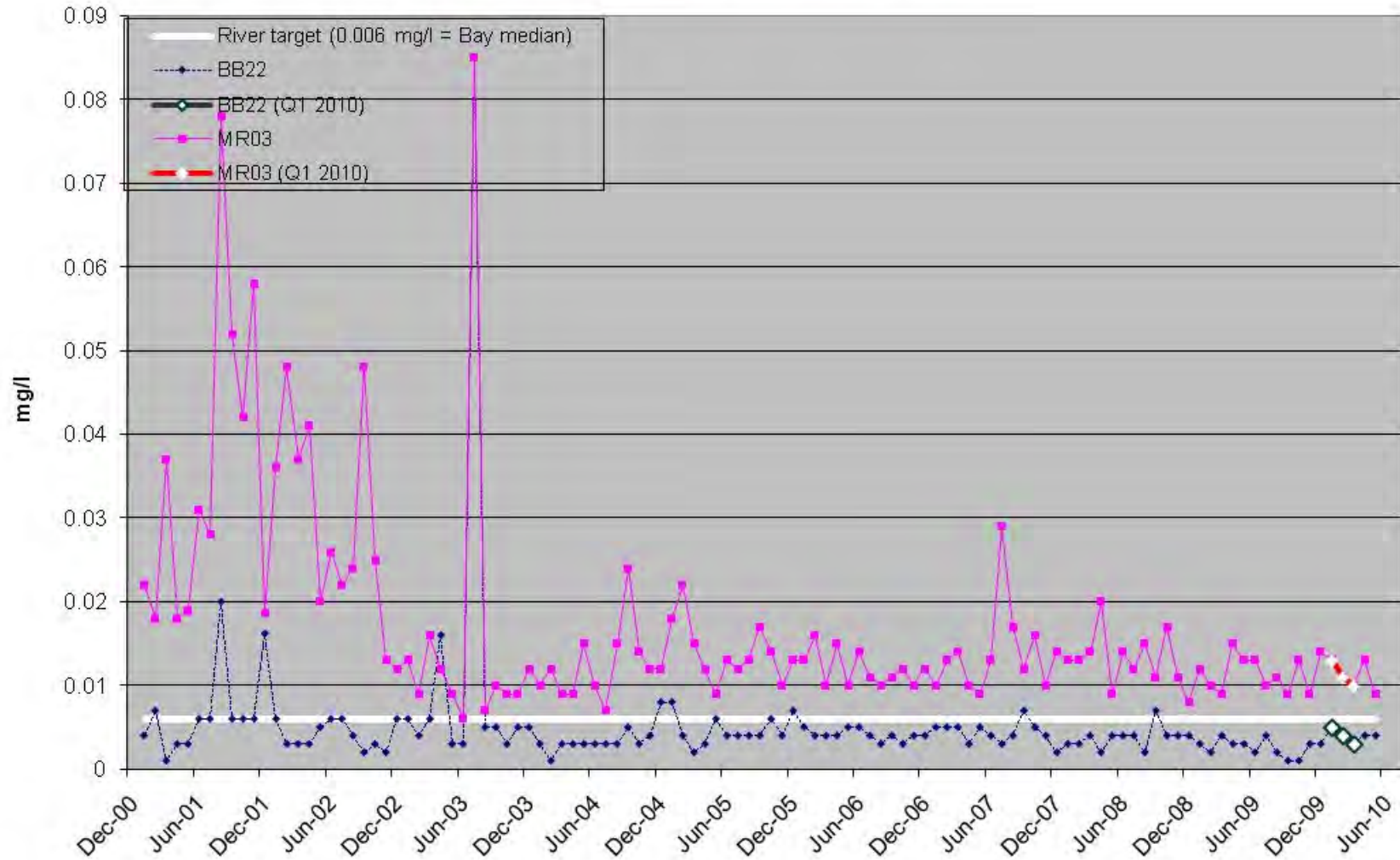


Chart 3.

Fecal Coliform Tracking Ten Year Period: 2000 - 2010 First Quarter 2010 Data (Jan - Mar) Highlighted

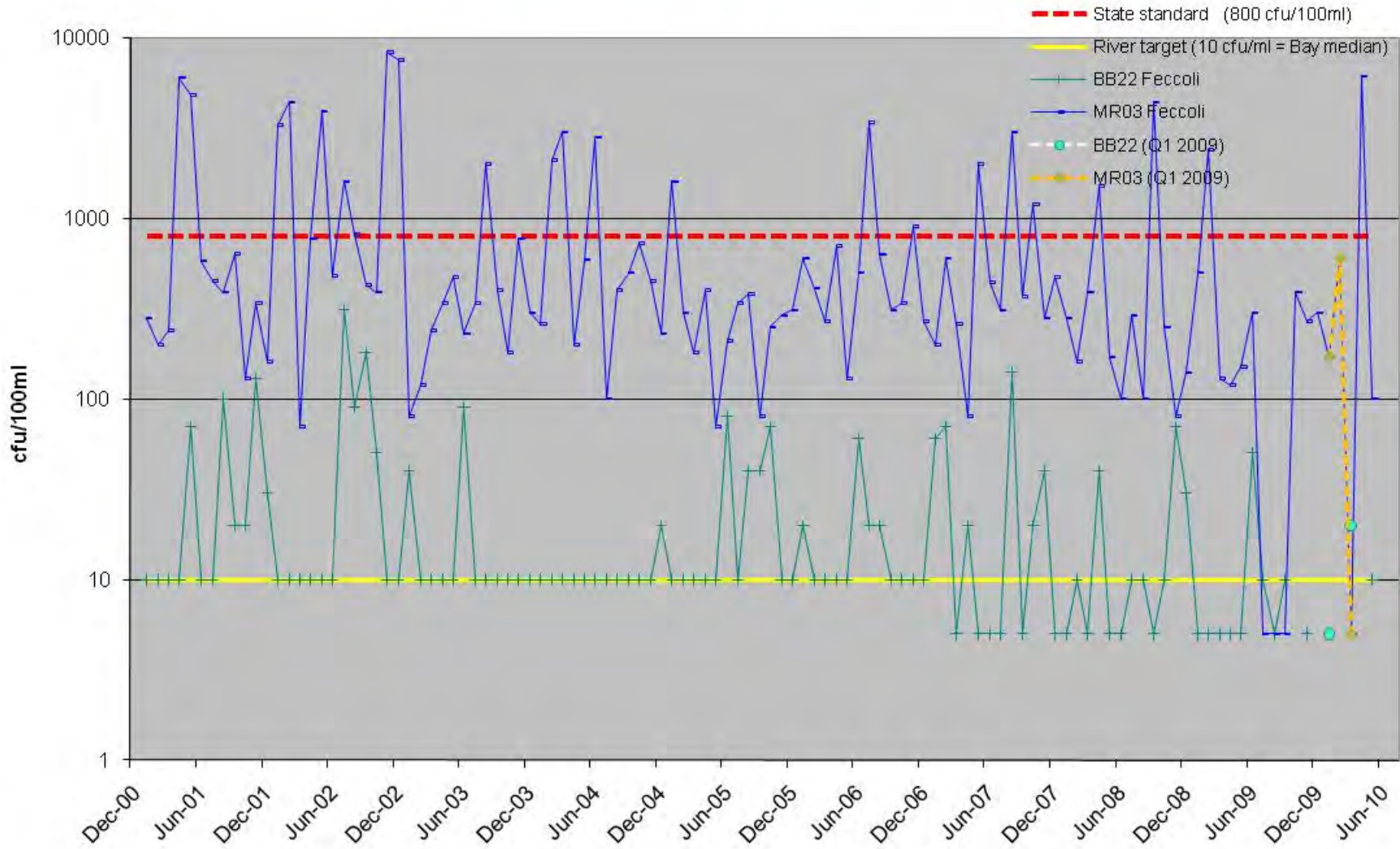


Chart 4.

Turbidity Tracking Ten Year Period: 2000 - 2010 First Quarter 2010 Data (Jan - Mar) Highlighted

