

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

Third Quarterly Report, 2010
(July - September)

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 1st 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 third quarter of 2010 samples were collected at each of the ten stations in the River on July 13, August 3, and September 14. 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. 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 (use where multiple samples are collected) during the third quarter of the year. Table 1 lists the observed Fecal Coliform levels in Wagner Creek from July – September 2010.

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

Biscayne Bay Surface Water Quality Monitoring Program

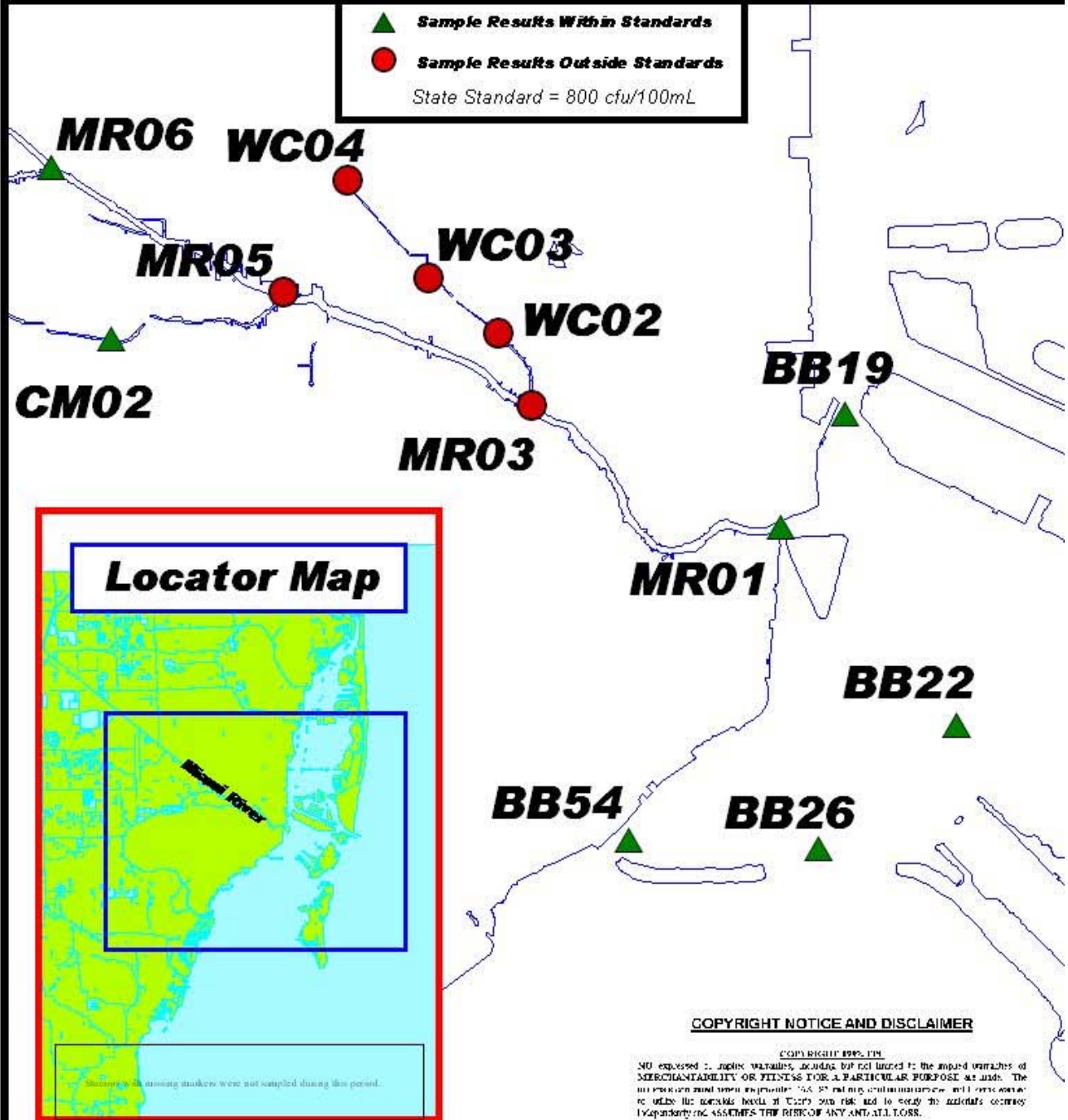
Water Quality Sample Compliance

July 2010

Miami River & Tributaries



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



COPYRIGHT NOTICE AND DISCLAIMER

COPYRIGHT 2010, ITR
NO expressed 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 may contain inaccuracies and errors. ITR does not warrant the accuracy, reliability, or completeness of the information and data. ITR does not assume any liability for any and all loss.

Biscayne Bay Surface Water Quality Monitoring Program

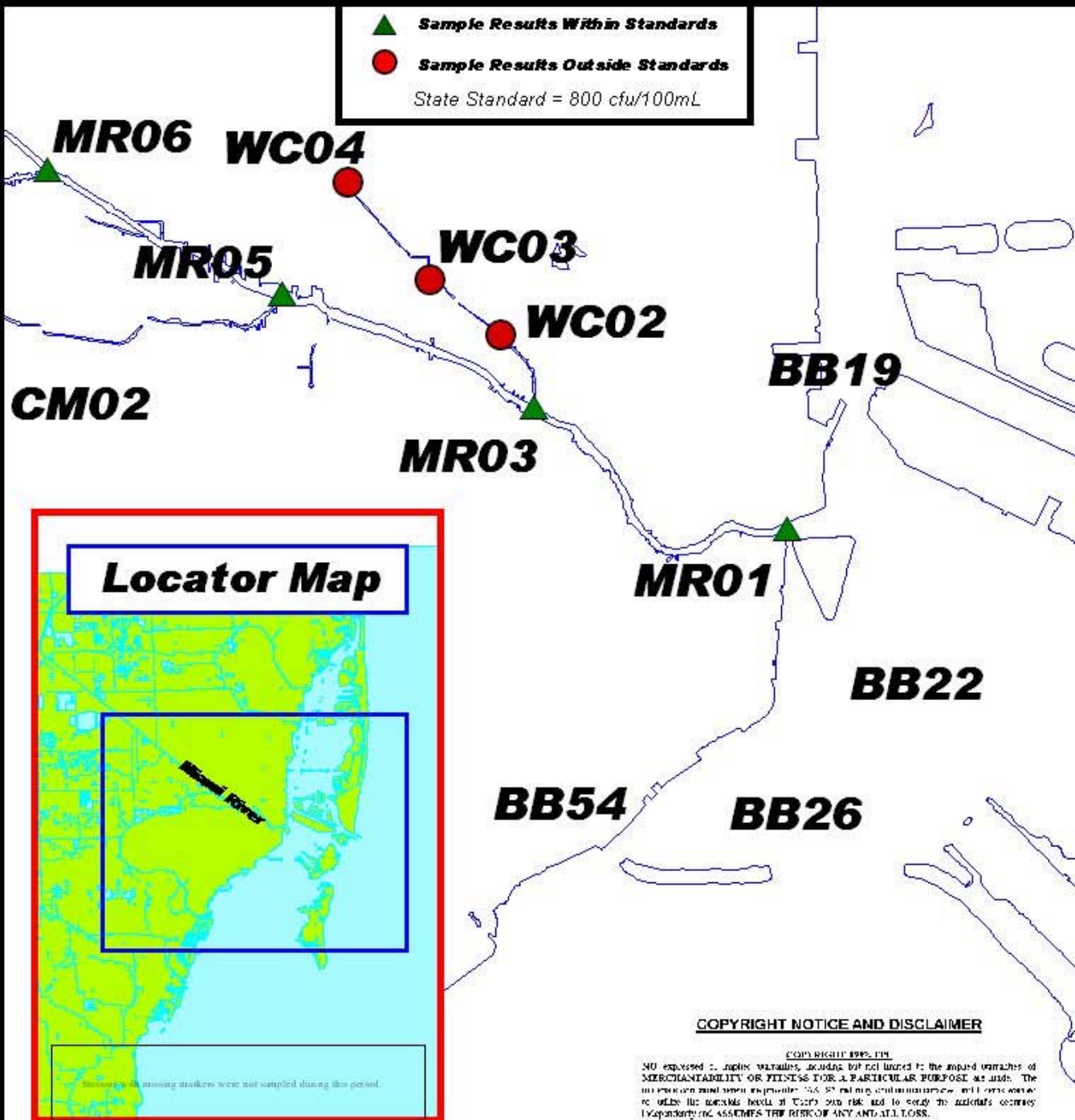
Water Quality Sample Compliance

August 2010

Miami River & Tributaries



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



Locator Map



Station with missing markers were not sampled during this period.

COPYRIGHT NOTICE AND DISCLAIMER

COPYRIGHT 1999, ILM
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 CONTAINED HEREIN IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT CONSTITUTE AN OFFER OF INSURANCE. THE USER ASSUMES THE RISK OF ANY AND ALL LOSS.

Biscayne Bay Surface Water Quality Monitoring Program

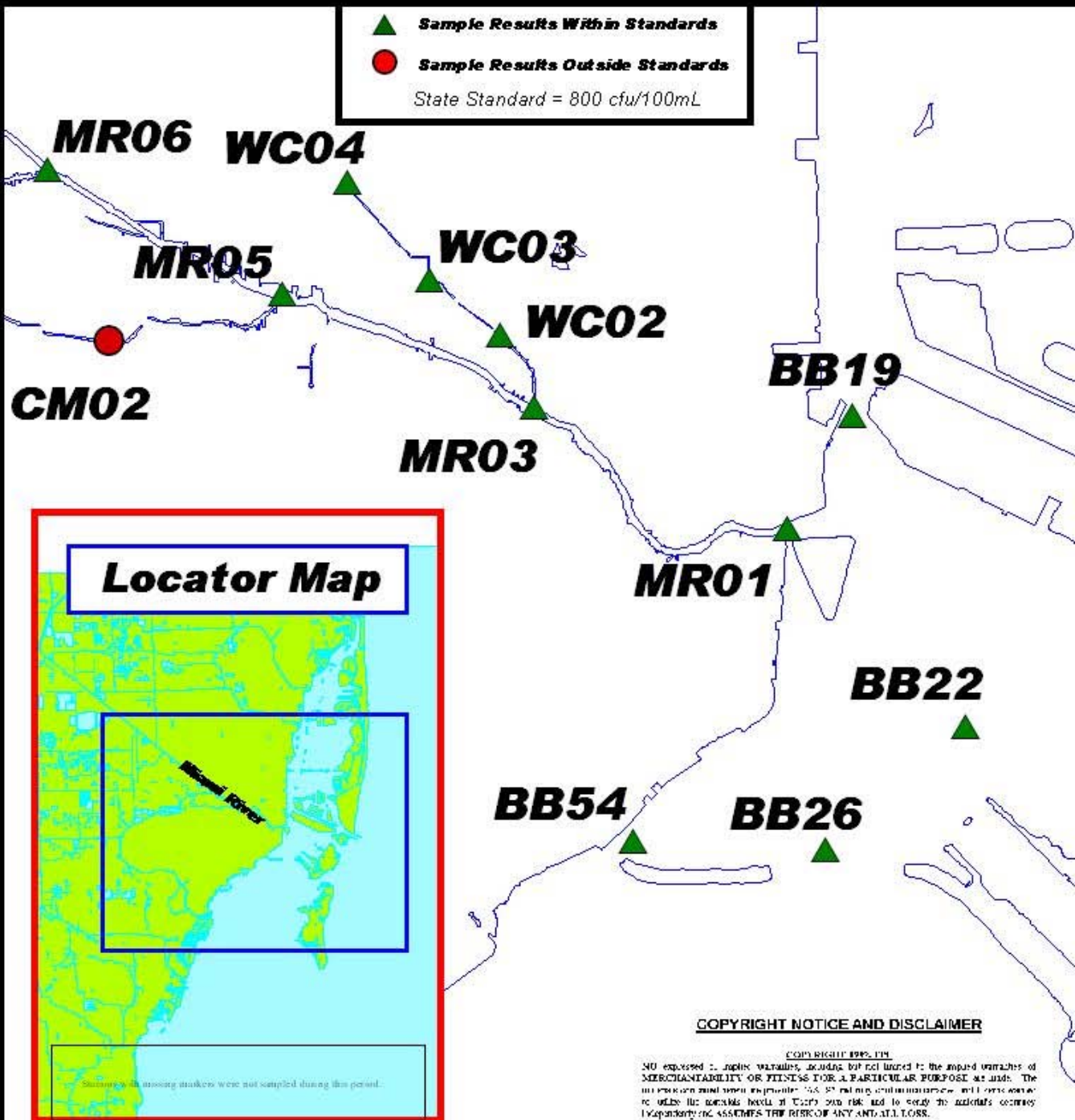
Water Quality Sample Compliance

September 2010

Miami River & Tributaries



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



COPYRIGHT NOTICE AND DISCLAIMER

COPYRIGHT 1999, ILM
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 SHOWN HEREIN IS PROVIDED "AS IS" WITHOUT WARRANTY, AND ILM ASSUMES NO LIABILITY FOR DAMAGES, INCLUDING BUT NOT LIMITED TO, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OF ANY KIND, ARISING OUT OF OR FROM THE USE OF THIS INFORMATION. ILM ASSUMES THE RISK OF ANY AND ALL LOSS.

Stations with missing markers were not sampled during this period.

Biscayne Bay Surface Water Quality Monitoring Program

Water Quality Sample Compliance

July to August 2010

Miami River & Tributaries

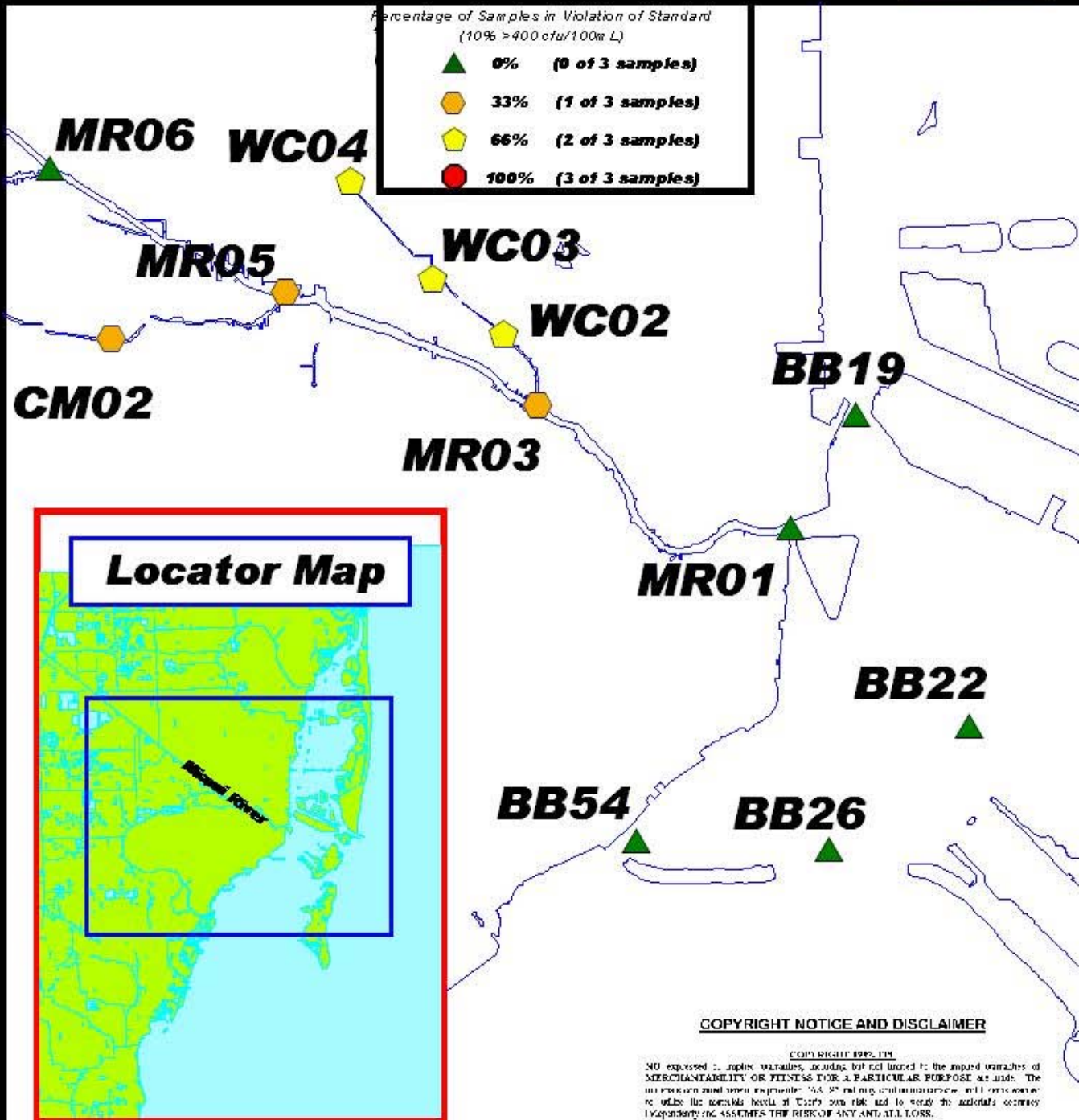


Table 1.

MONTHLY FECAL COLIFORM LEVELS (cfu's/100 ml) IN WAGNER CREEK				
	WC04	WC03	WC02	MR03
July	4000*	2000*	2000*	2300*
August	100000*	100000*	34000*	550
September	340	40	400	150

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.

Third Quarterly Report, 2010
(July - September)

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 Third quarter (July- September) 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– 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 (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 Third Quarter 2010 Data (Jul - Sept) Highlighted

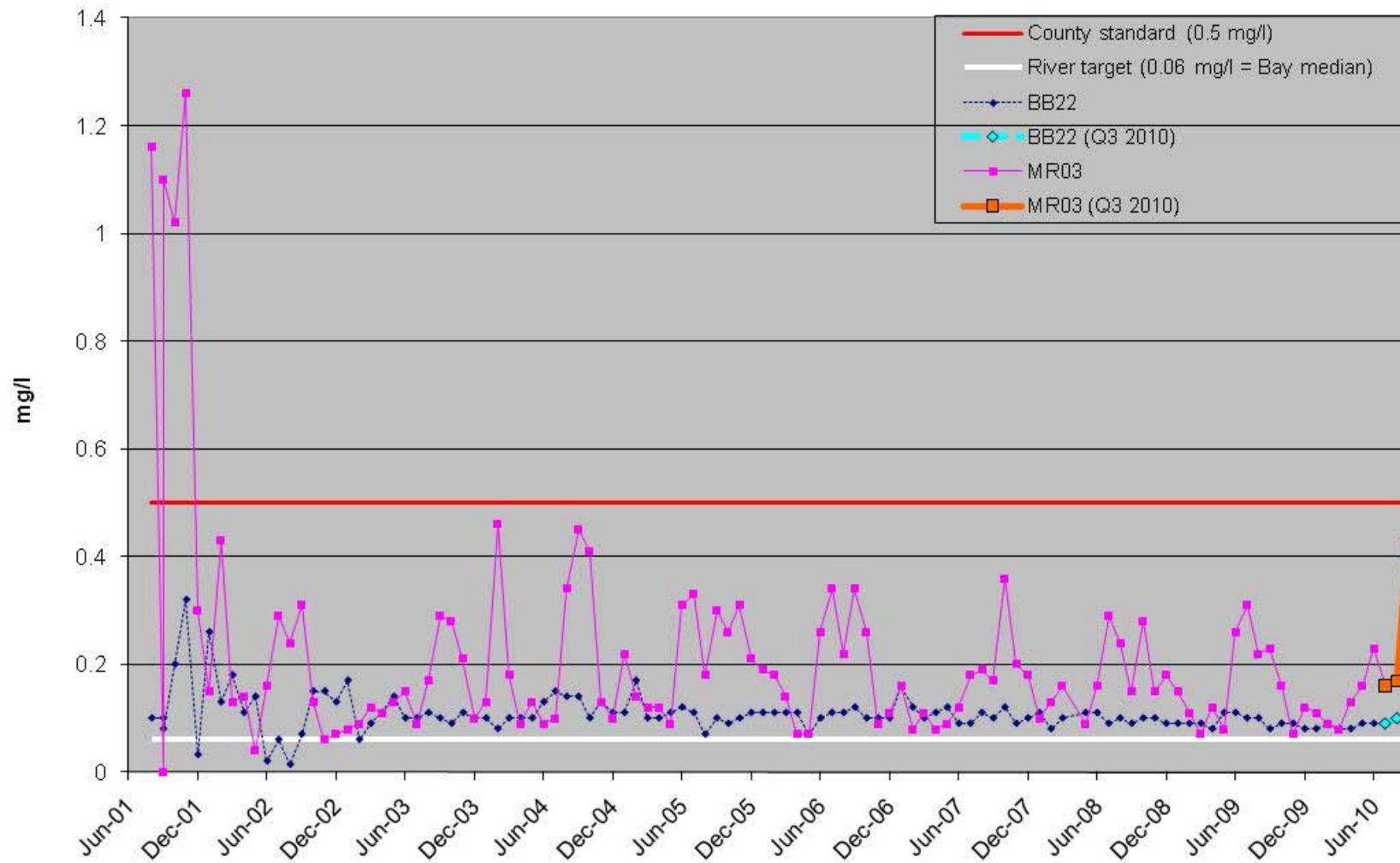


Chart 2.

Total Phosphate Tracking Ten Year Period: 2000 - 2010 Third Quarter 2010 Data (Jul - Sept) Highlighted

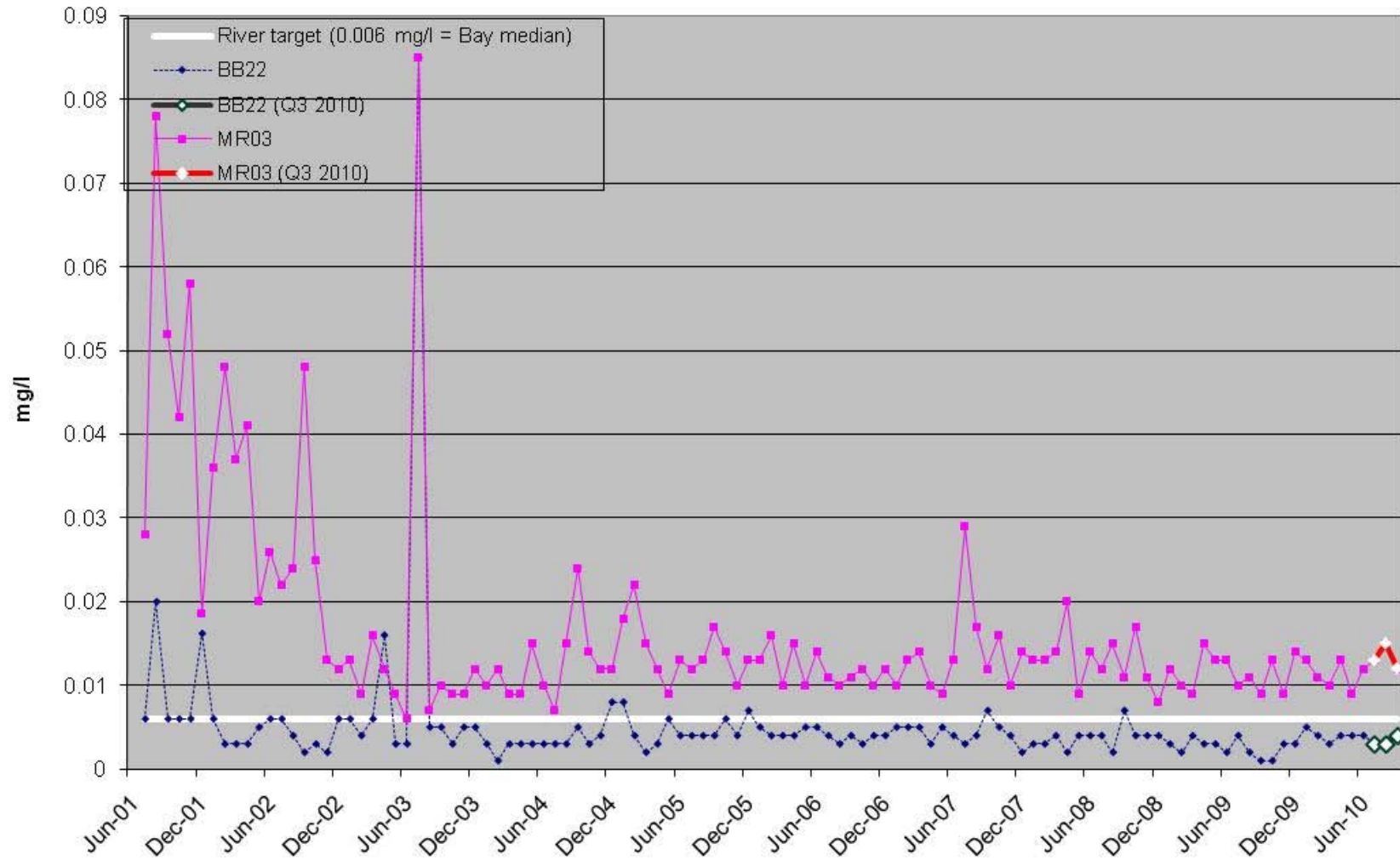


Chart 3.

Fecal Coliform Tracking Ten Year Period: 2000 - 2010 ThirdQuarter 2010 Data (Jul - Sept) Highlighted

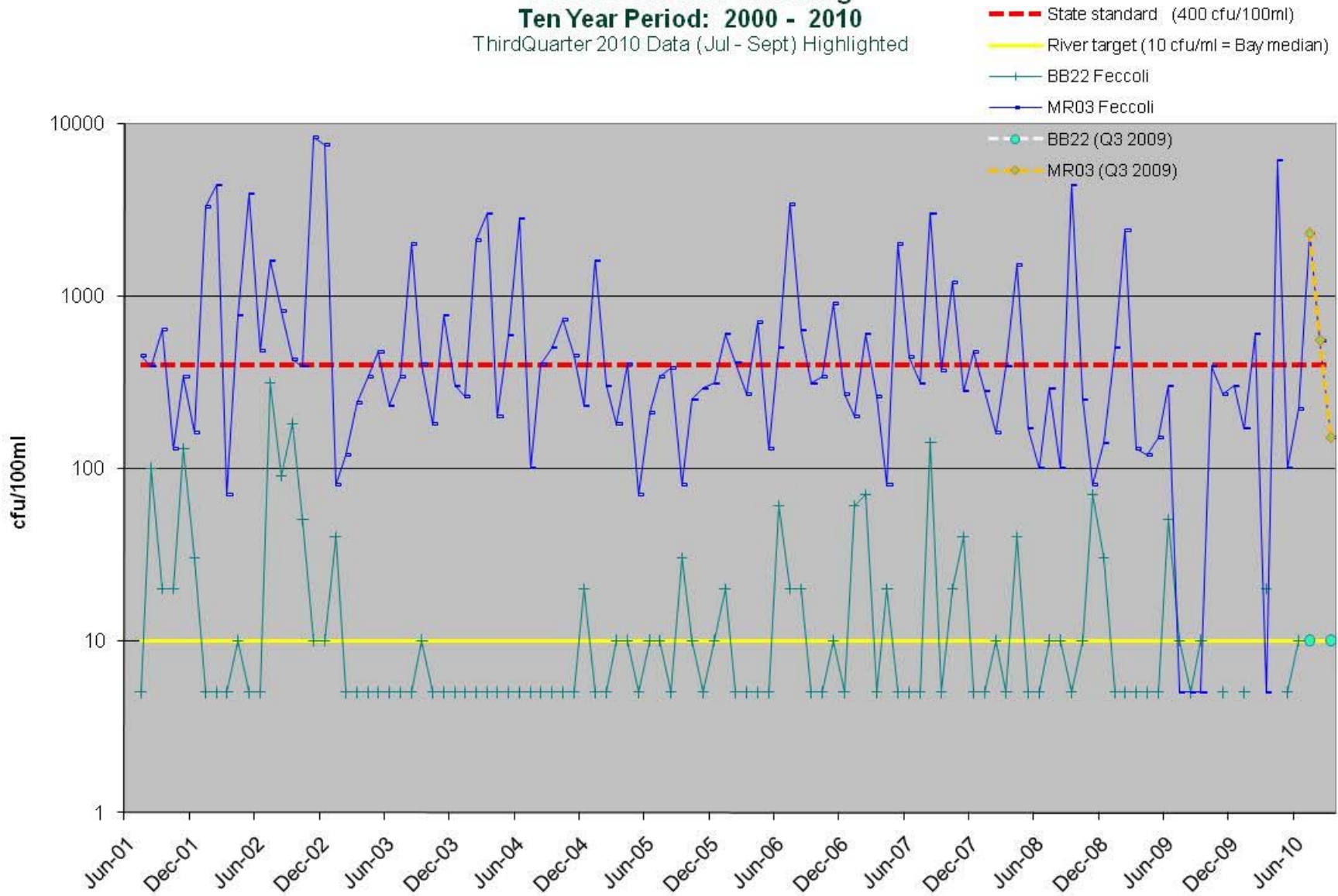


Chart 4.

Fecal Coliform Tracking
(Wagner Creek Stations Only)
Ten Year Period: 2000 - 2010
Third Quarter 2010 Data (Jul - Sept) Highlighted

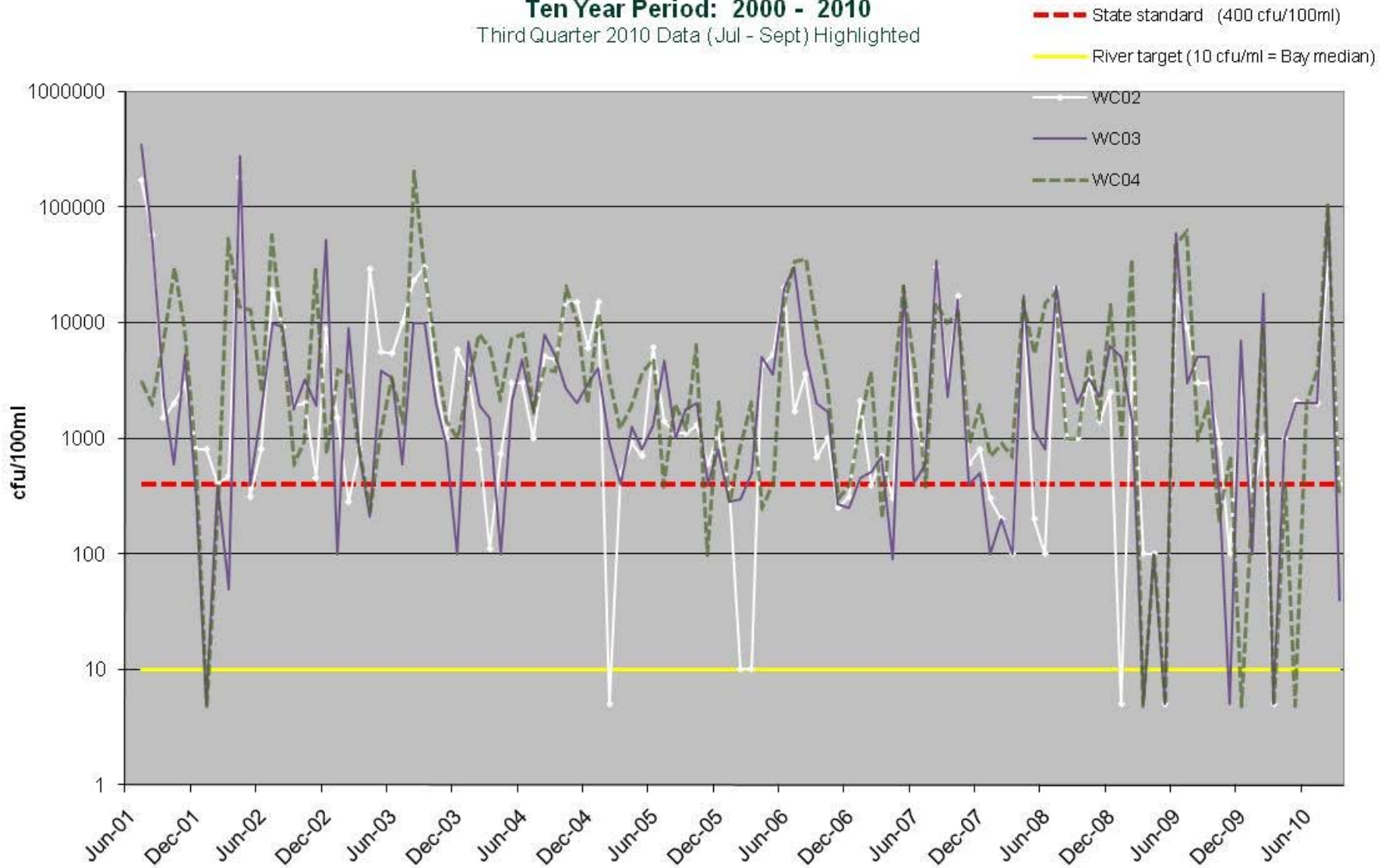


Chart 5.

Turbidity Tracking Ten Year Period: 2000 - 2010 Third Quarter 2010 Data (Jul - Sept) Highlighted

