

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

Second Quarterly Report, 2009
(April - June)

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 First quarter of 2009 samples were collected at each of the ten stations in the River on April 8, May 5, and June 04. Costs for sampling (including salaries and fringe and analysis) have been calculated at approximately \$320 per station per month. See table provided in the Second Quarterly report of 2009 for a matrix of parameters collected on the Miami River during DERM’s monthly “Bay Run” and the frequency with which various types of parameters are collected. No sewage spills were reported on or around the River during the quarter. Such notification typically results in additional an emergency sampling response.

See **Figures 1 - 3** below for maps showing monthly Total Coliform results from April – June at stations in the Miami River and vicinity. **Figure 4** is a quarterly composite of Total 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 Total Coliform levels in Wagner Creek form April – June 2009.

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Biscayne Bay Surface Water Quality Monitoring Program

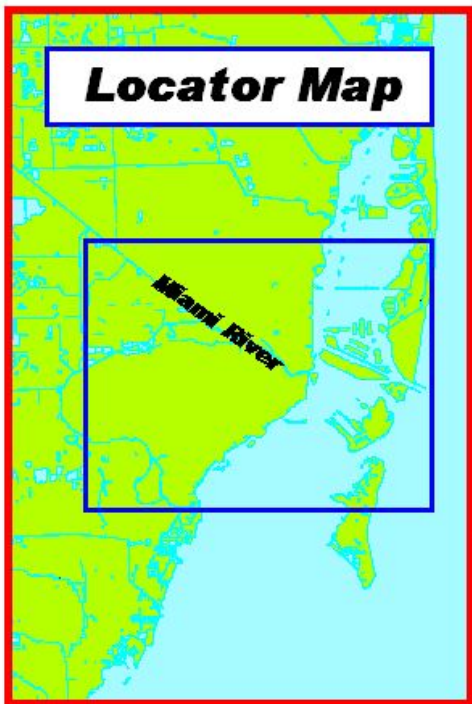
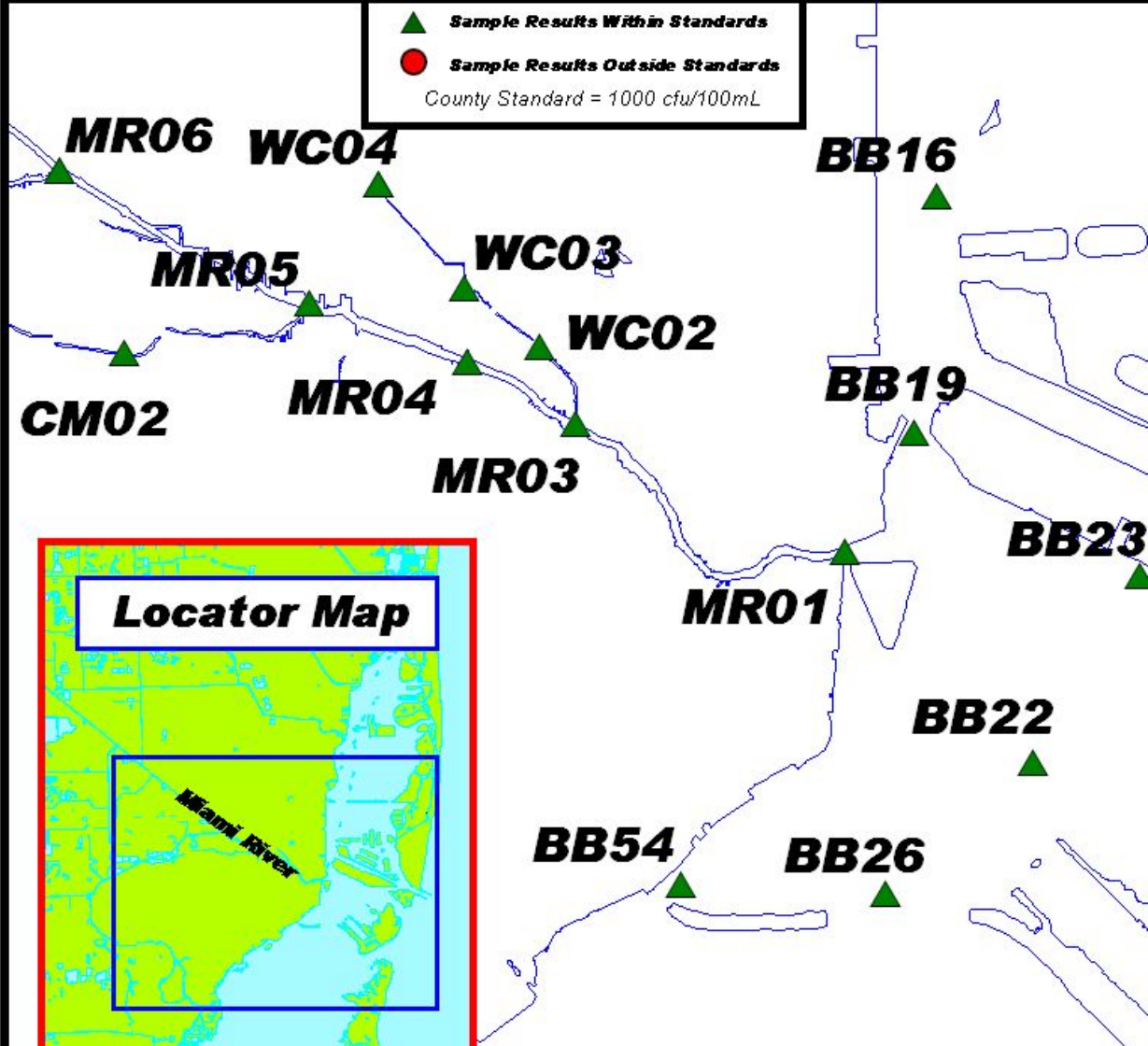
Water Quality Sample Compliance

April 2009

Miami River & Tributaries



▲ **Sample Results Within Standards**
● **Sample Results Outside Standards**
County Standard = 1000 cfu/100mL



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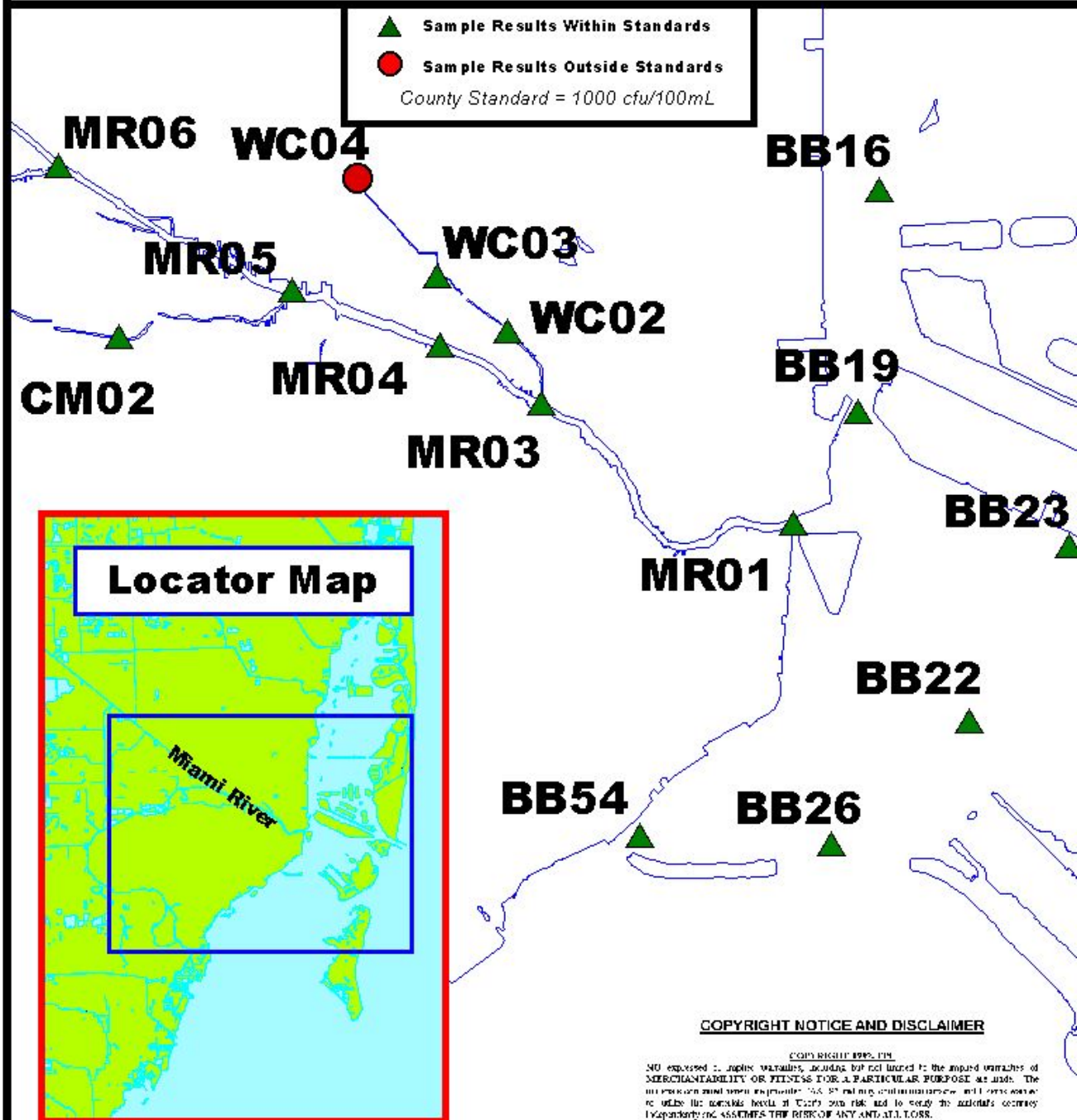
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Biscayne Bay Surface Water Quality Monitoring Program

Water Quality Sample Compliance

May 2009

Miami River & Tributaries



Biscayne Bay Surface Water Quality Monitoring Program

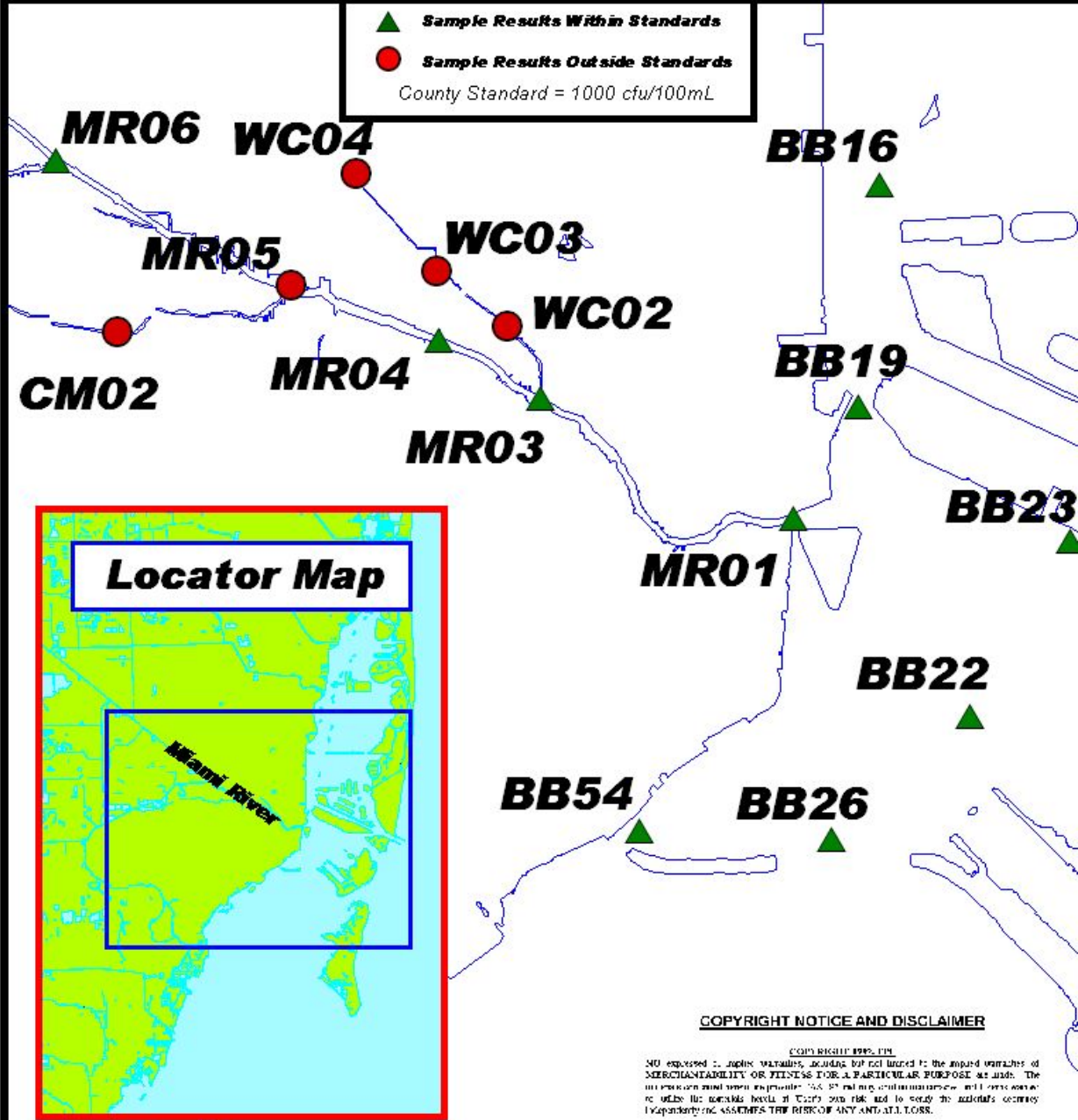
Water Quality Sample Compliance

June 2009

Miami River & Tributaries



▲ Sample Results Within Standards
● Sample Results Outside Standards
County Standard = 1000 cfu/100mL



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Biscayne Bay Surface Water Quality Monitoring Program

Water Quality Sample Compliance

April to June 2009

Miami River & Tributaries

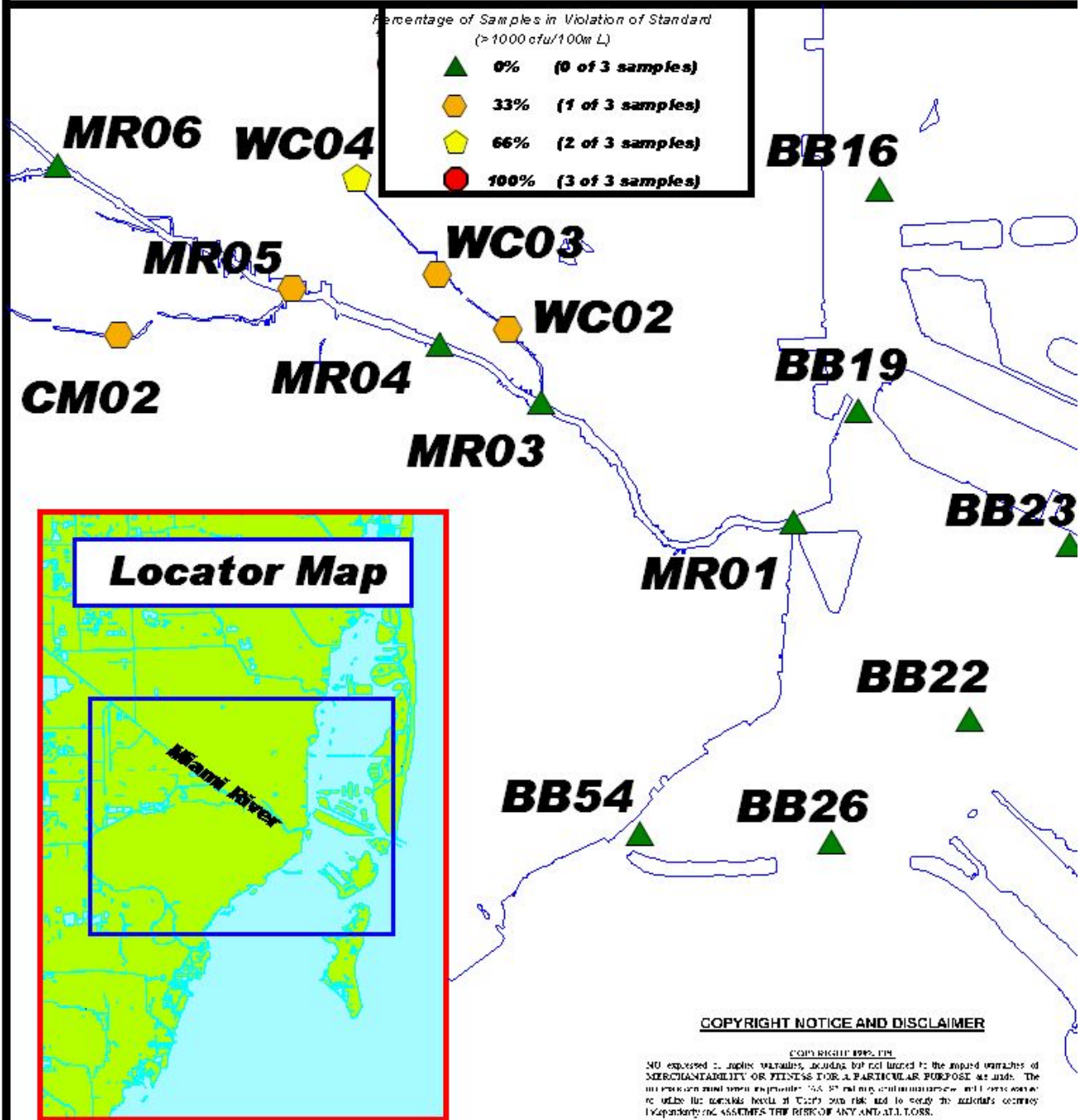


Table 1.

MONTHLY TOTAL COLIFORM LEVELS (cfu's/100 ml) IN WAGNER CREEK				
	WC04	WC03	WC02	MR03
April	200	200	200	200
May	1800*	100	100	240
June	53000*	67000*	23000*	400

A * indicates results that exceed the County Standard (1000 cfu/100ml).

Second Quarterly Report, 2009
(April - June)

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 (April- June) of 2009. 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, total/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 (1999 - 2009) 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: 1999 - 2009 Second Quarter 2009 Data (April - Jun) Highlighted

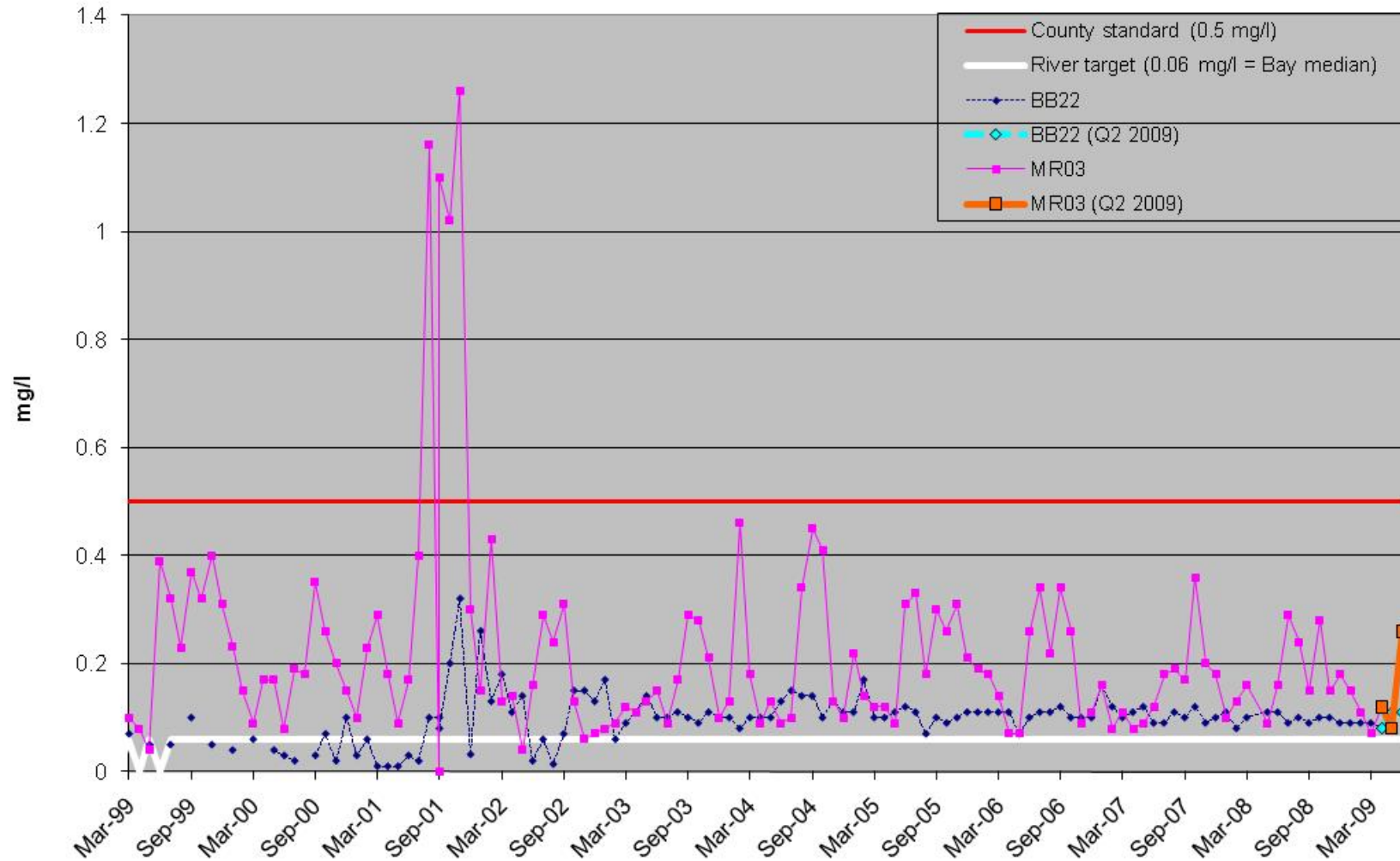


Chart 2.

Total Phosphate Tracking Ten Year Period: 1999 - 2009 Second Quarter 2009 Data (April - Jun) Highlighted

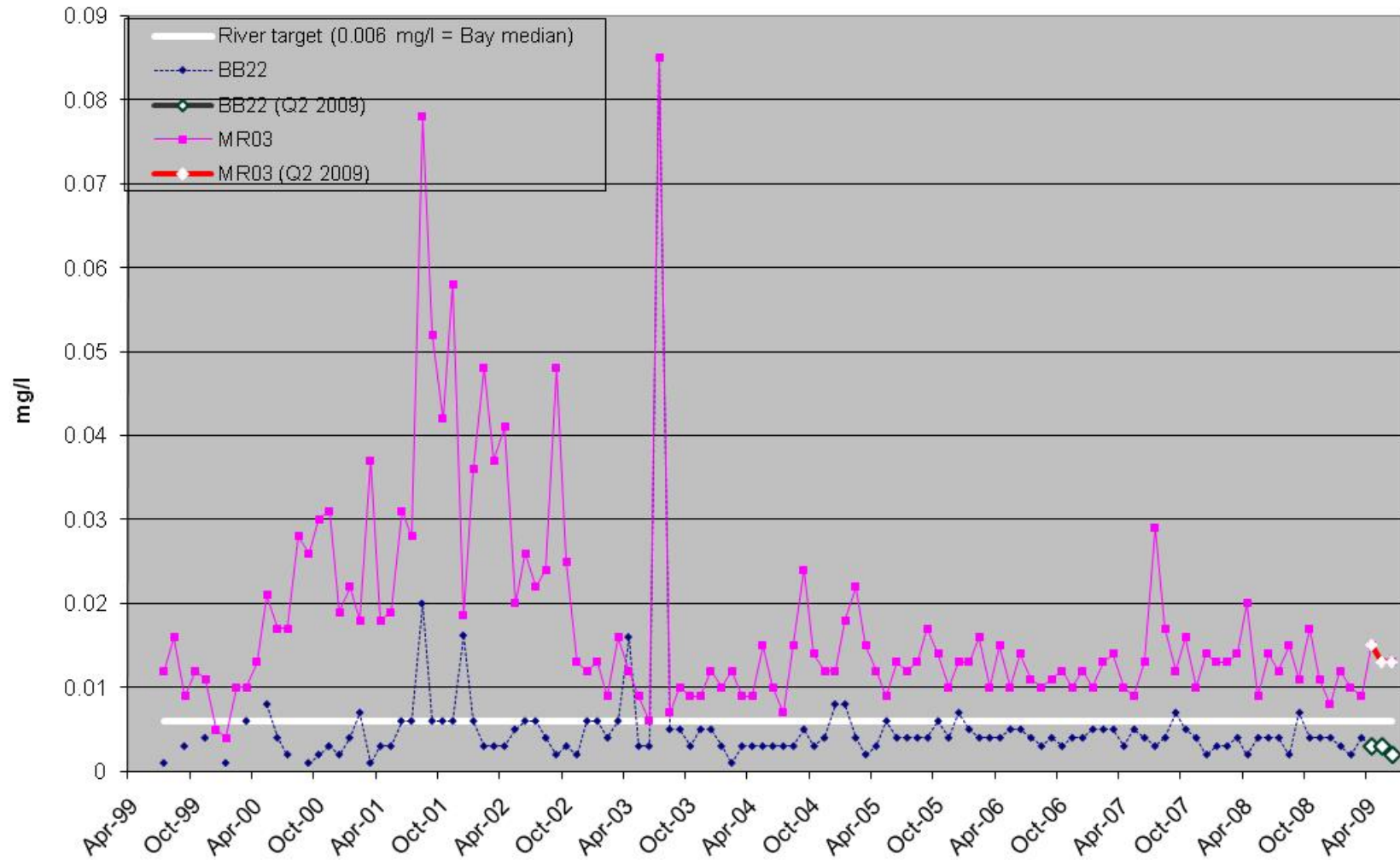


Chart 3.

Coliform Tracking Ten Year Period: 1999 - 2009 Second Quarter 2009 Data (April - Jun) Highlighted

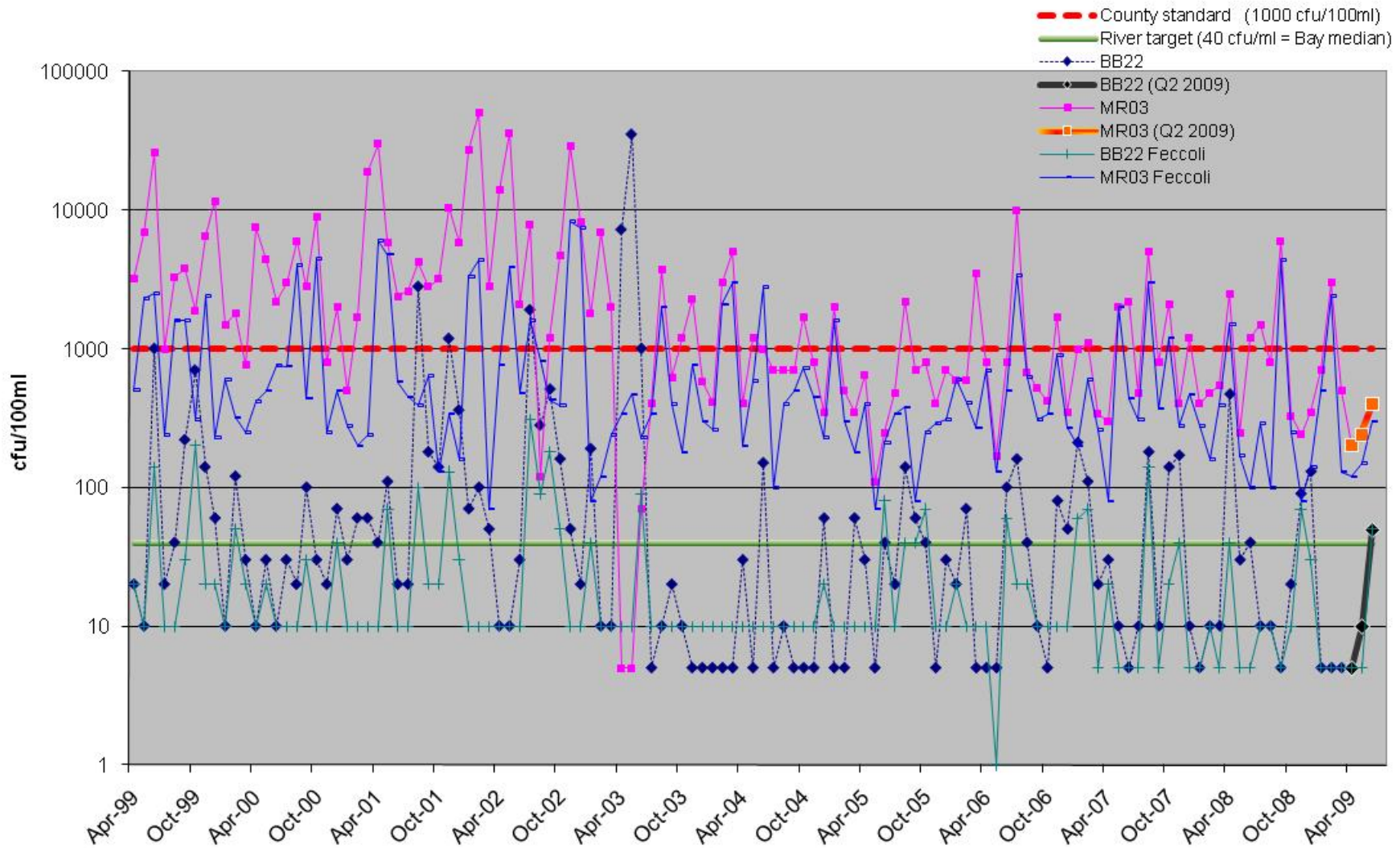


Chart 4.

Turbidity Tracking Ten Year Period: 1999 - 2009 Second Quarter 2009 Data (April - Jun) Highlighted

