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

First Quarterly Report, 2013 (January – March)

#### **Action Item:**

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

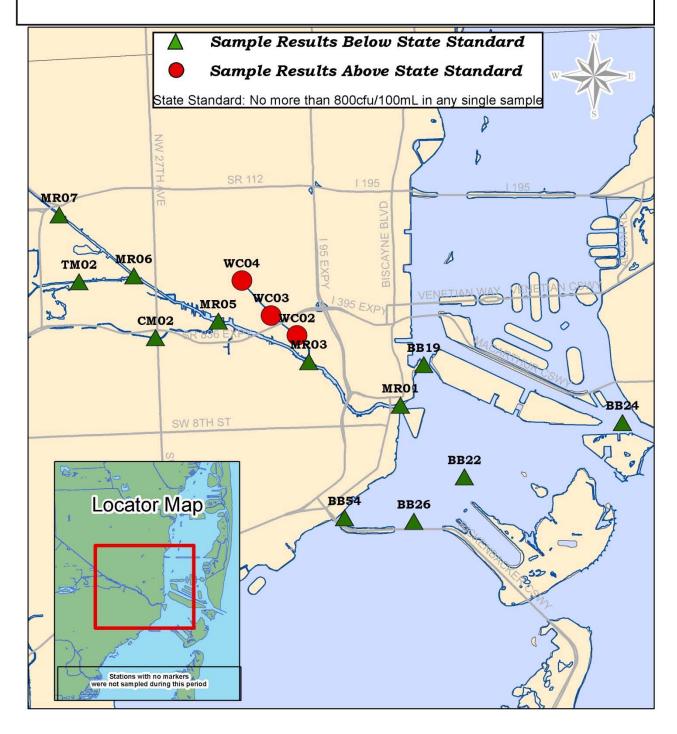
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#### **Action Item Status:**

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 First Quarter of 2013 samples were collected at each of the ten stations in the River on First Tuesday of the first full week in January, February, and March. 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 First Quarter of the year. Table 1 lists the observed Fecal Coliform levels in Wagner Creek form January – March 2013.

# Biscayne Bay Surface Water Quality Monitoring Program Fecal Coliform Batceria Sample Compliance January 2013 Miami River and Tributaries

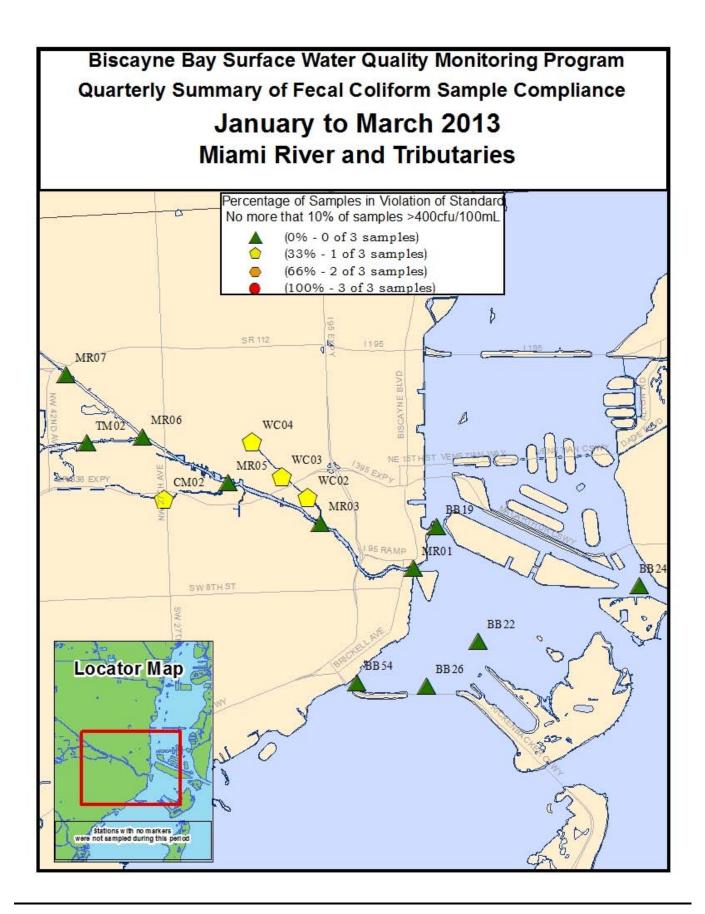


# Biscayne Bay Surface Water Quality Monitoring Program Fecal Coliform Batceria Sample Compliance February 2013 Miami River and Tributaries



### Biscayne Bay Surface Water Quality Monitoring Program Fecal Coliform Batceria Sample Compliance March 2013 Miami River and Tributaries





#### Table 1.

MONTHLY FECAL COLIFORM LEVELS (cfu's/100 ml) IN WAGNER CREEK				
	MR03	WC02	WC03	WC04
January	360	3200*	3800*	2000*
February	190	800*	300	100
March	30	320	0	100

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, 2013 (January - March)

#### **Action Item:**

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

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#### **Action Item Status:**

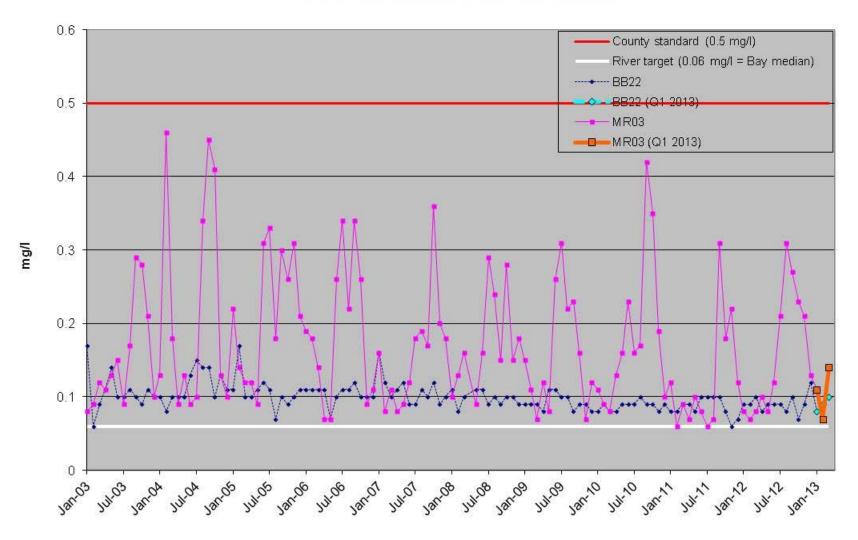
This report presents selected results of the water quality monitoring that occurred in the First Quarter (January- March) of 2013. Due to the extensive nature of the database, it is not feasible to track each parameter collected at each station for the period of record. Therefore, representative stations 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.



### Ammonia Nitrogen Tracking

Ten Year Period: 2003 - 2013

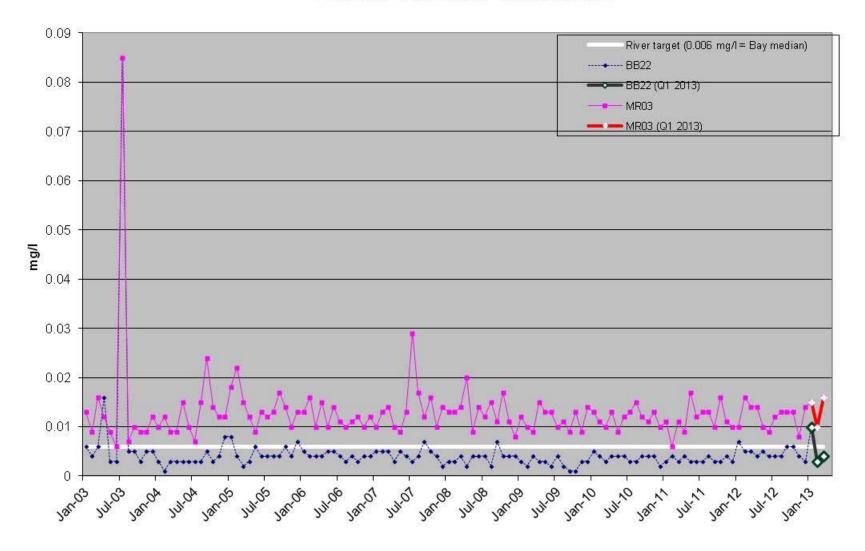
First Quarter 2013 Data (Jan - March) Highlighted



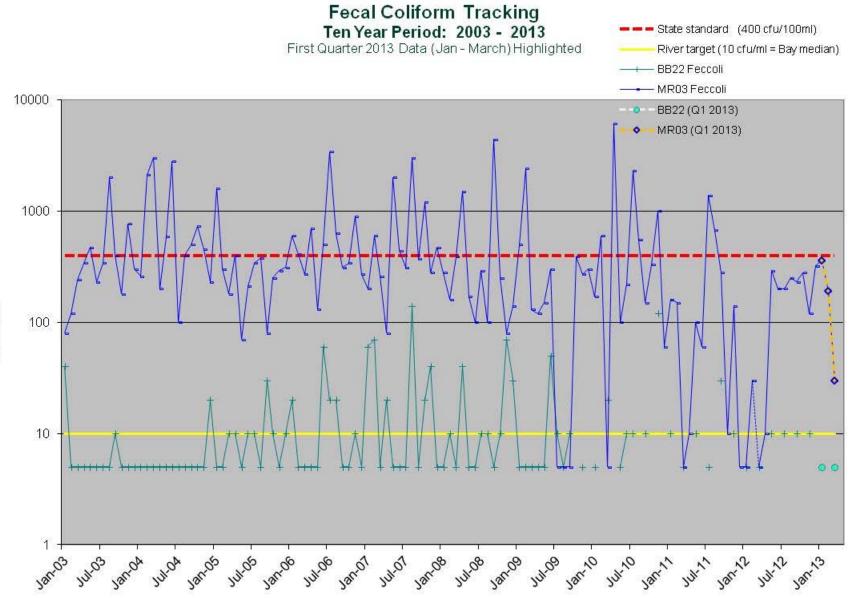


### Total Phosphate Tracking Ten Year Period: 2003 - 2013

First Quarter 2013 Data (Jan - March) Highlighted

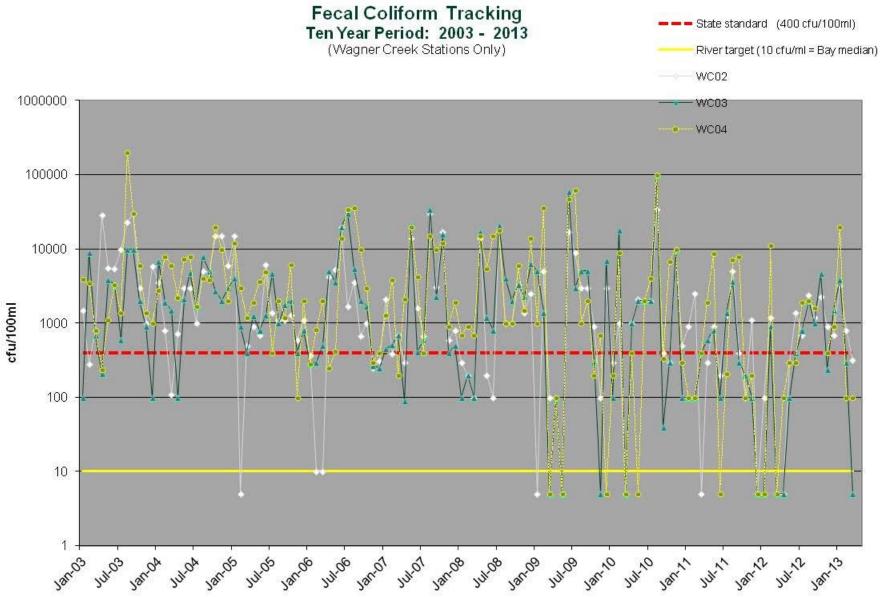






cfu/100ml





#### Turbidity Tracking Ten Year Period: 2003 - 2013 First Quarter 2013 Data (Jan - Mar) Highlighted

7 Miami River Target (2.5 NTU = Bay median) ----- BB22 6 BB22 (Q1 2013) ---- MR03 5 4 3 2 1 0 Janoa Jarros 141.05 101.07 Janos 111.08 Jaroo Janno 111.10 Janos 101-03 JULOA 111.09 Janni Jar 2 JULA Jano Julo Janot 111,12 Jan 13

NTU's

Chart 5.