

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

Fourth Quarterly Report, 2016  
(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

**Contact Name** Jamie Monty or Omar Abdelrahman, DERM  
**Address** 701 NW 1<sup>st</sup> Court  
Miami, FL 33136  
**Telephone** (305) 372-6853 or (305) 372-6872  
**Fax** (305) 372-6649

**E-mail** [montyj@miamidade.gov](mailto:montyj@miamidade.gov)  
[abdelo@miamidade.gov](mailto:abdelo@miamidade.gov)

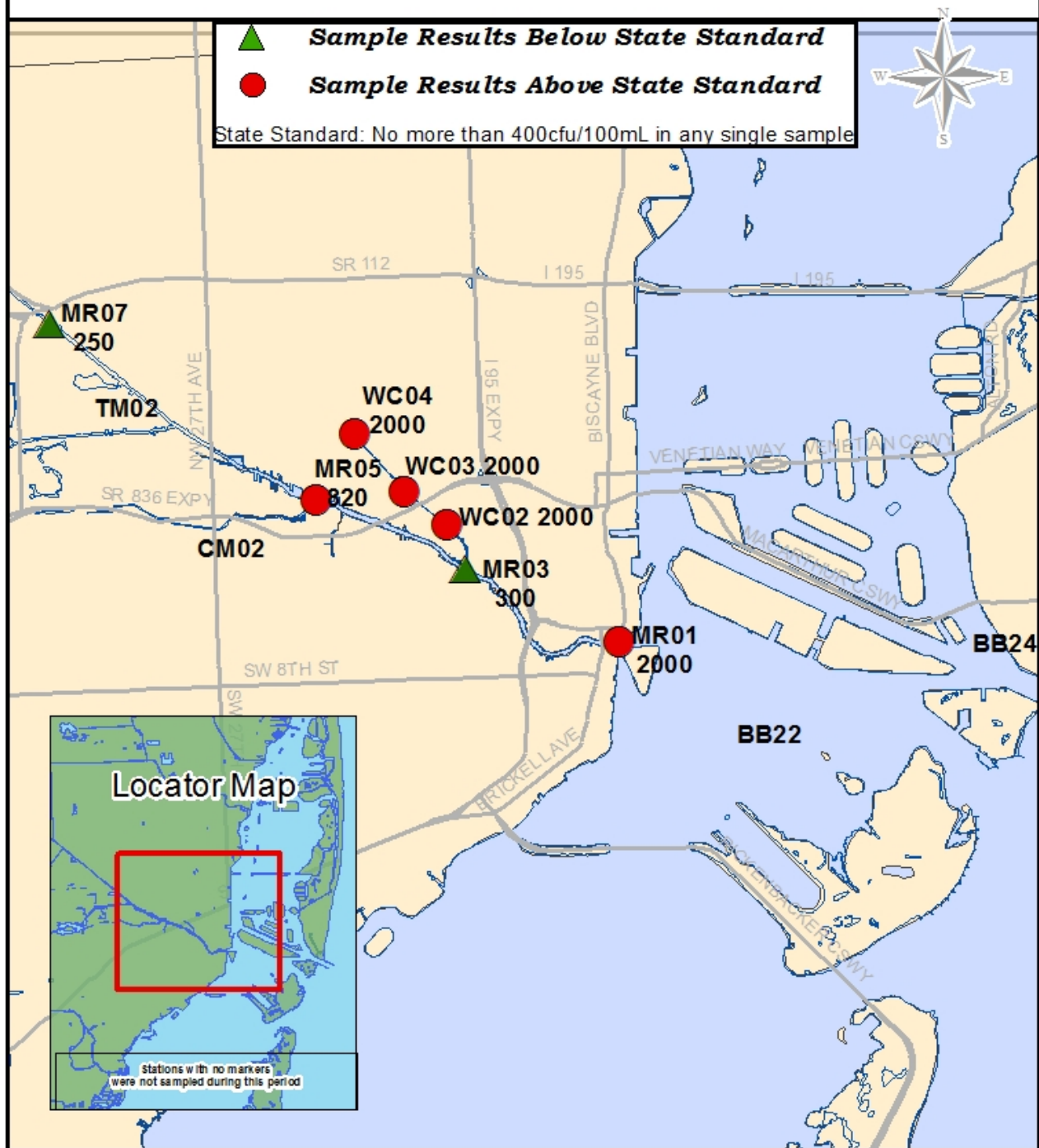
**Action Item Status:**

Miami-Dade DERM has continued to collect monthly water quality samples in the Miami River and its tributaries (including Tamiami Canal, Comfort Canal and Wagner Creek). During the Fourth Quarter of 2016 samples were collected at each of the eight stations in the River and tributaries 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 the vicinity exceed the single sample standard of 400 cfu/100ml (in red). **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 standard during the Fourth Quarter of the year. Table 1 lists the observed Fecal Coliform levels in Wagner Creek and its confluence with the Miami River (MR03) from October-December 2016.

**“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 2016**  
**Miami River and Tributaries**

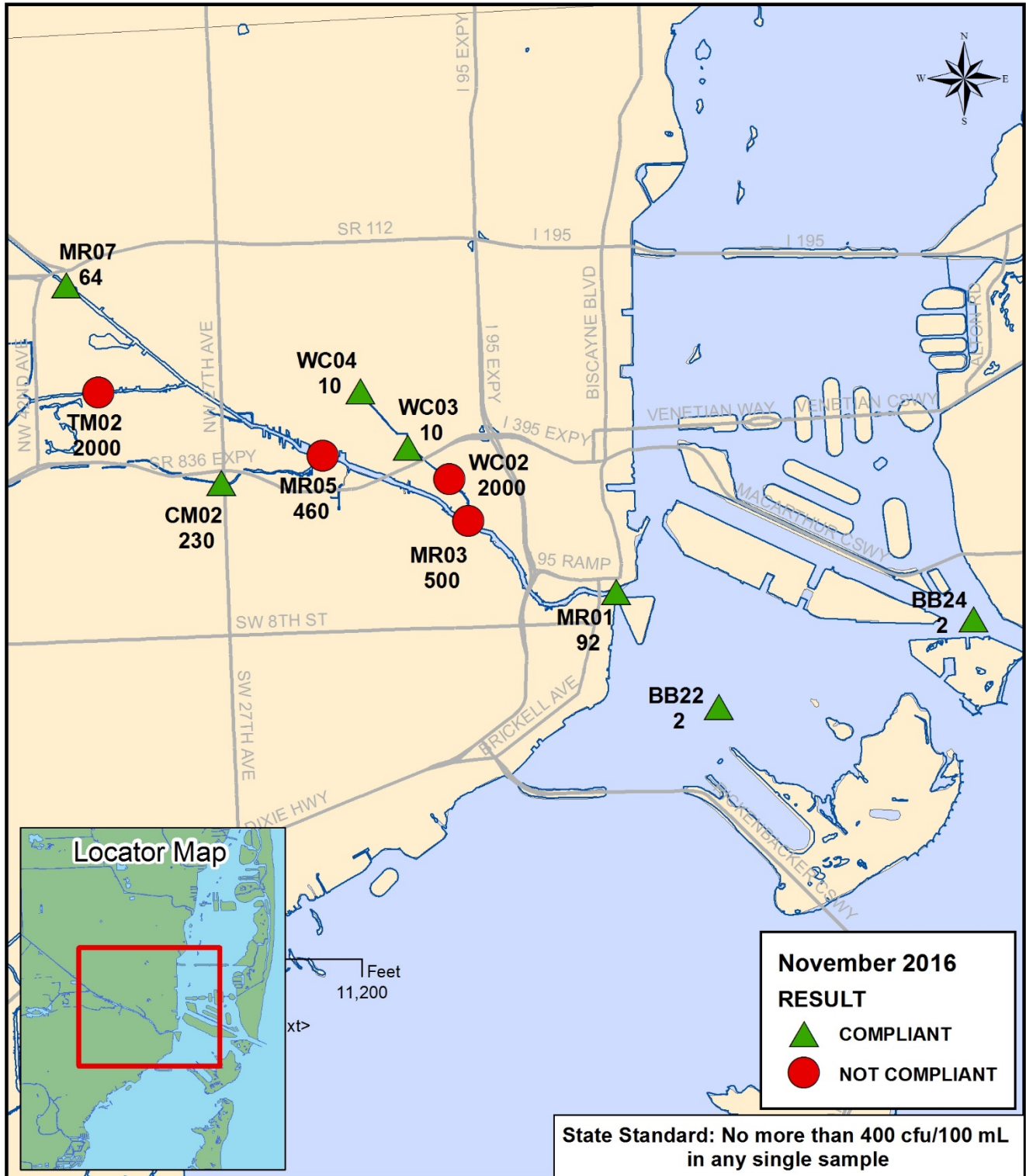


# Biscayne Bay Surface Water Quality Monitoring Program

## Fecal Coliform Bacteria Sample Compliance

### November 2016

### Miami River and Tributaries

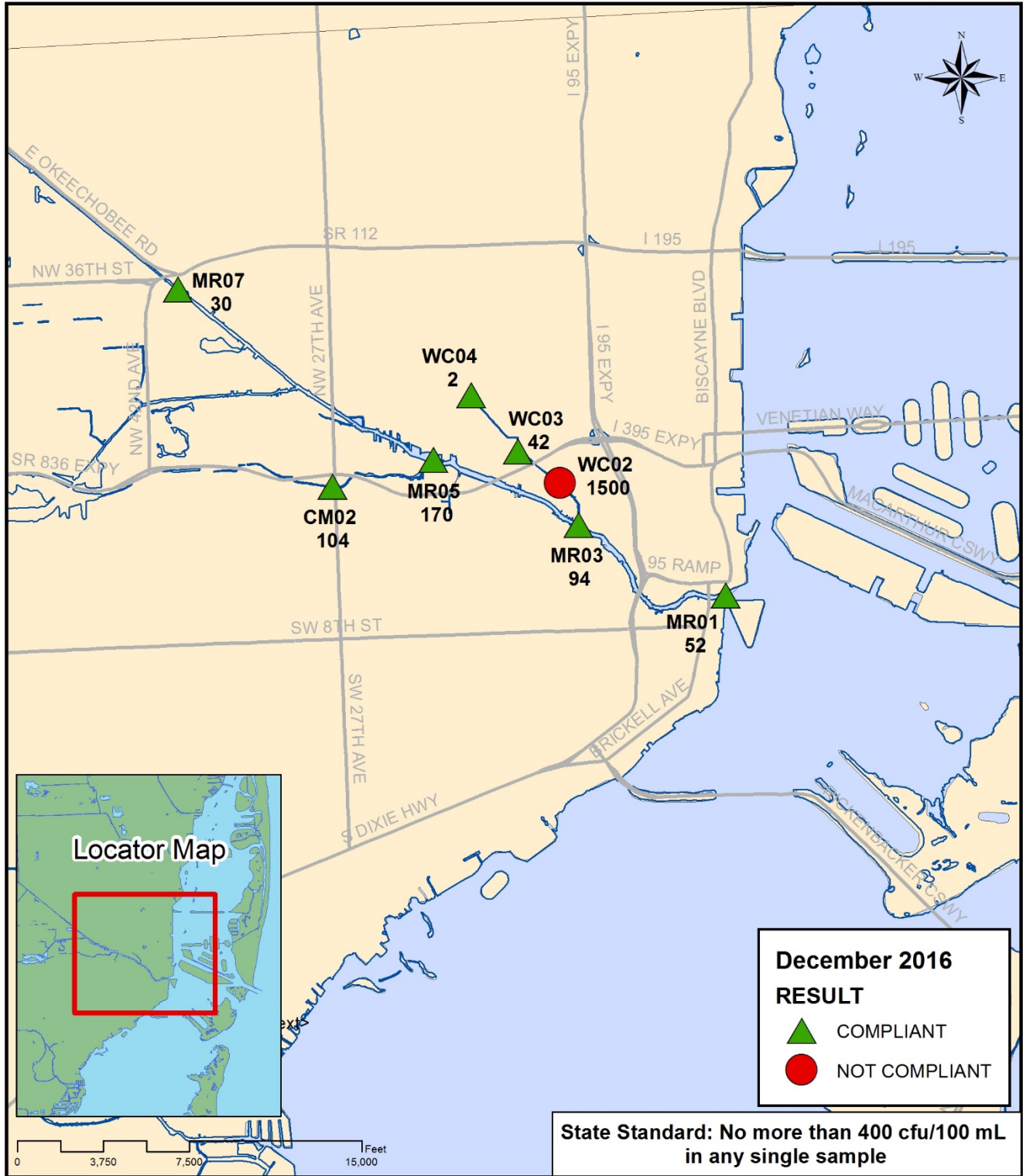


# Biscayne Bay Surface Water Quality Monitoring Program

## Fecal Coliform Bacteria Sample Compliance

### December 2016

### Miami River and Tributaries

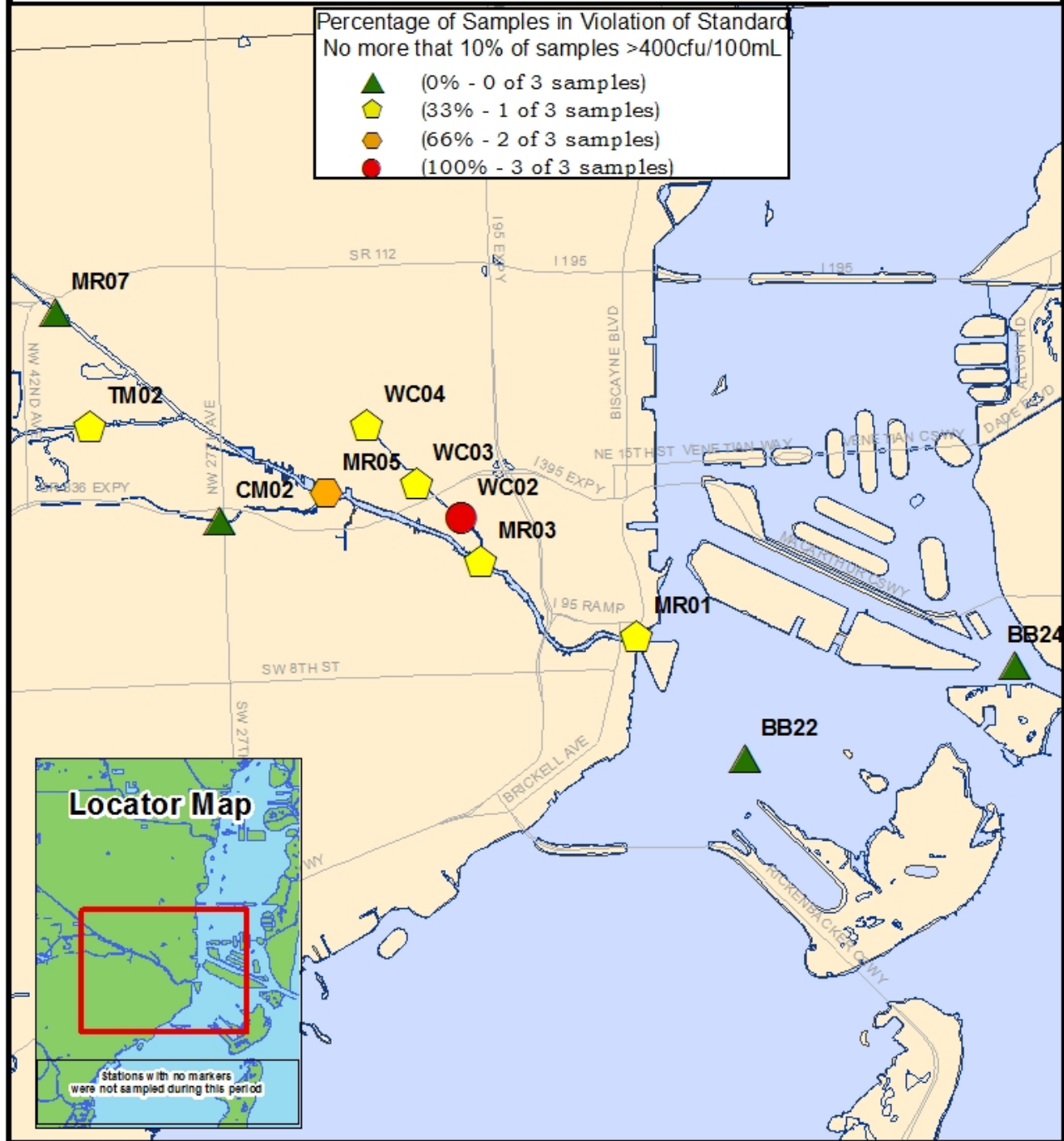


# Biscayne Bay Surface Water Quality Monitoring Program

## Quarterly Summary of Fecal Coliform Sample Compliance

### October to December 2016

### Miami River and Tributaries



**Table 1.**

MONTHLY FECAL COLIFORM LEVELS (cfu's/100 ml) IN WAGNER CREEK				
	<b>MR03</b>	<b>WC02</b>	<b>WC03</b>	<b>WC04</b>
<b>October</b>	<b>300</b>	<b>2000*</b>	<b>2000*</b>	<b>2000*</b>
<b>November</b>	<b>500*</b>	<b>2000*</b>	<b>10</b>	<b>10</b>
<b>December</b>	<b>94</b>	<b>1500*</b>	<b>42</b>	<b>2</b>

A” \*\*” indicates results that exceed the State’s Standard (400 cfu/100ml); a “0” indicates that the true value was below the method detection limit.

**Fourth Quarterly Report, 2016**  
(October-December)

**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 1<sup>ST</sup> Court  
Miami, FL 33136

**Telephone** (305) 372-6872

**Fax** (305) 372-6630

**e-mail** [abdelo@miamidade.gov](mailto:abdelo@miamidade.gov)

**Action Item Status:**

This report presents selected results of the water quality monitoring that occurred in the Fourth Quarter (October-December) of 2016. 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 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 1-12 for graphs of Ammonia Nitrogen, Total Phosphate, Fecal Coliform, and Turbidity data) throughout the river.

Prior to the 2015 Fourth Quarter report Station MR03 was used as a representative station for the river and compared to a bay station closest to the river (BB22) for those stated parameters. In order to evaluate the river more comprehensively, all currently monitored stations in the river were included with each parameter plotted on 3 separate graphs each representing the lower river, upper river, and Wagner Creek (See maps presented under action item 4.a for station locations). Data are plotted in time series from the previous ten-year (2006-2016) 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.

All subsequent reports will continue this format.

Chart 1.

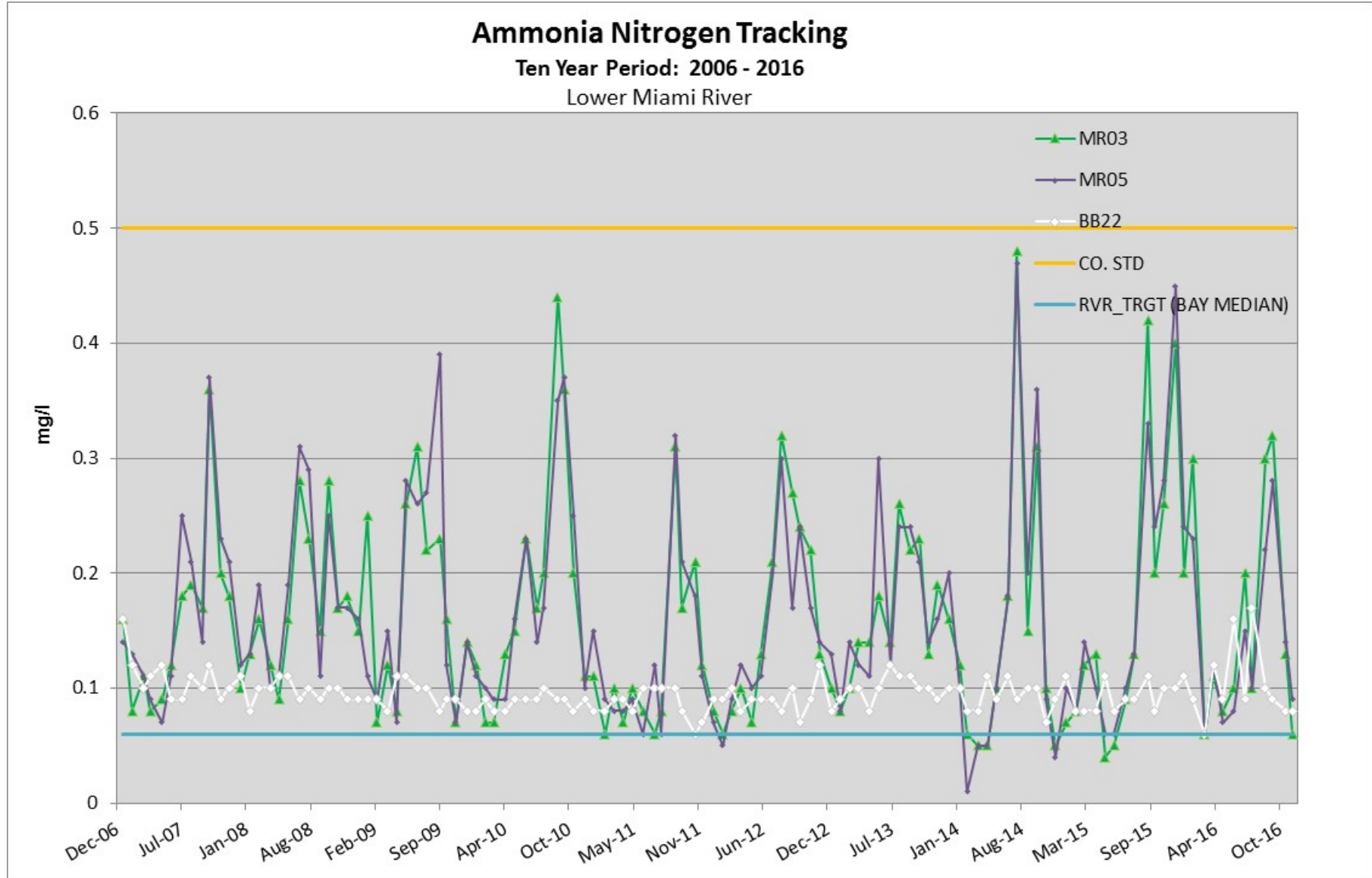




Chart 2.

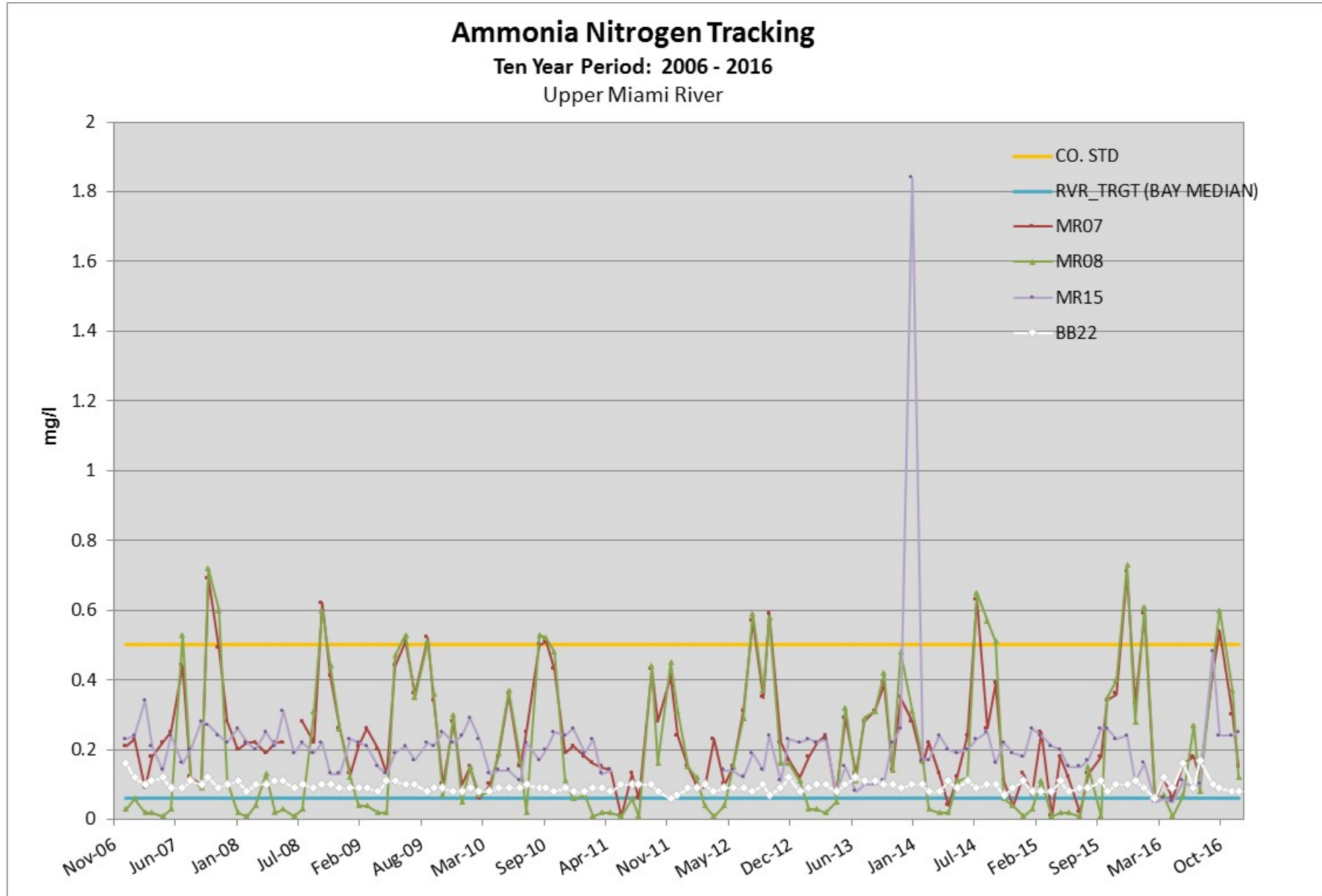


Chart 3

### Ammonia Nitrogen Tracking

Ten Year Period: 2006 - 2016

Wagner Creek

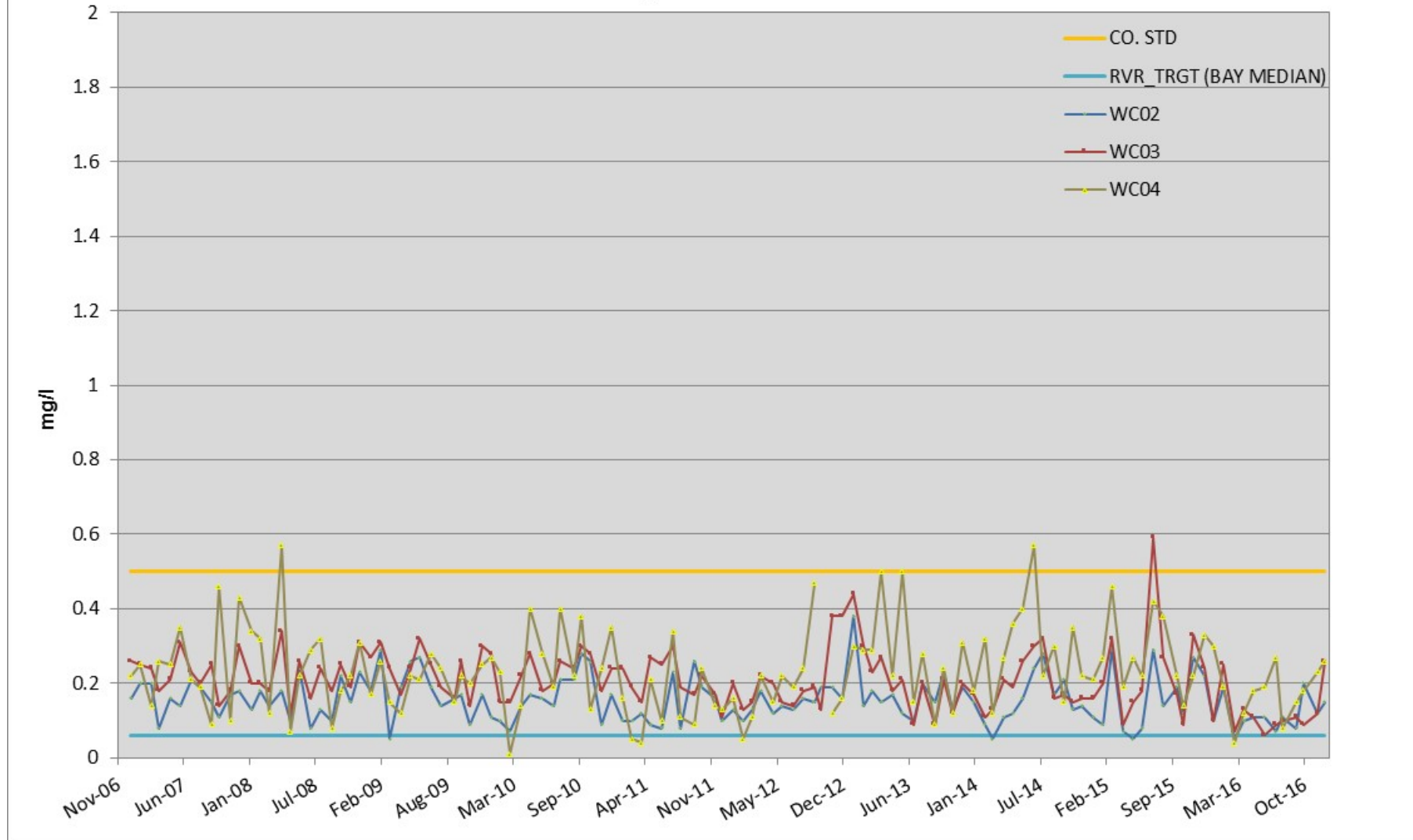


Chart 4.

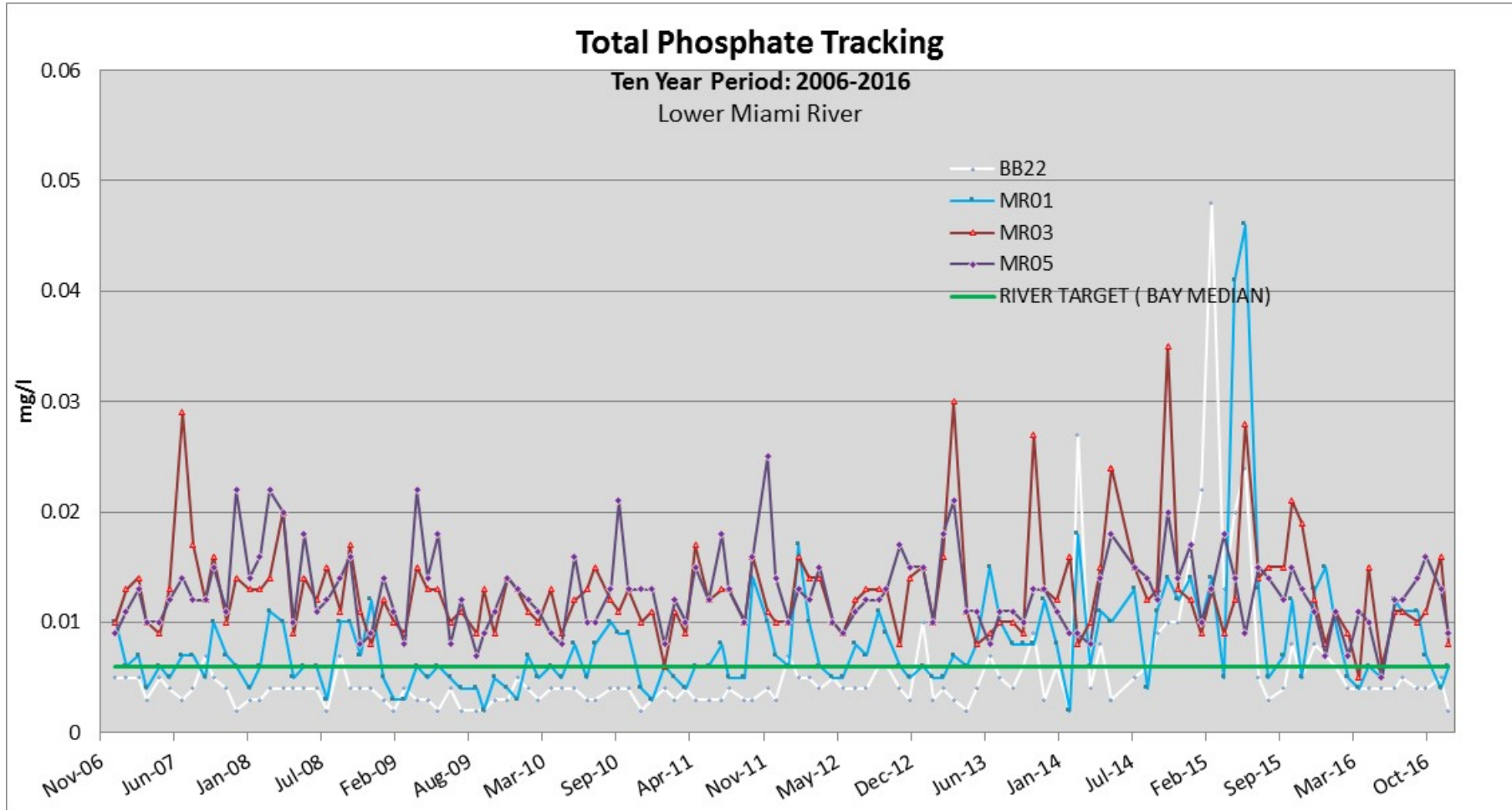


Chart 5.

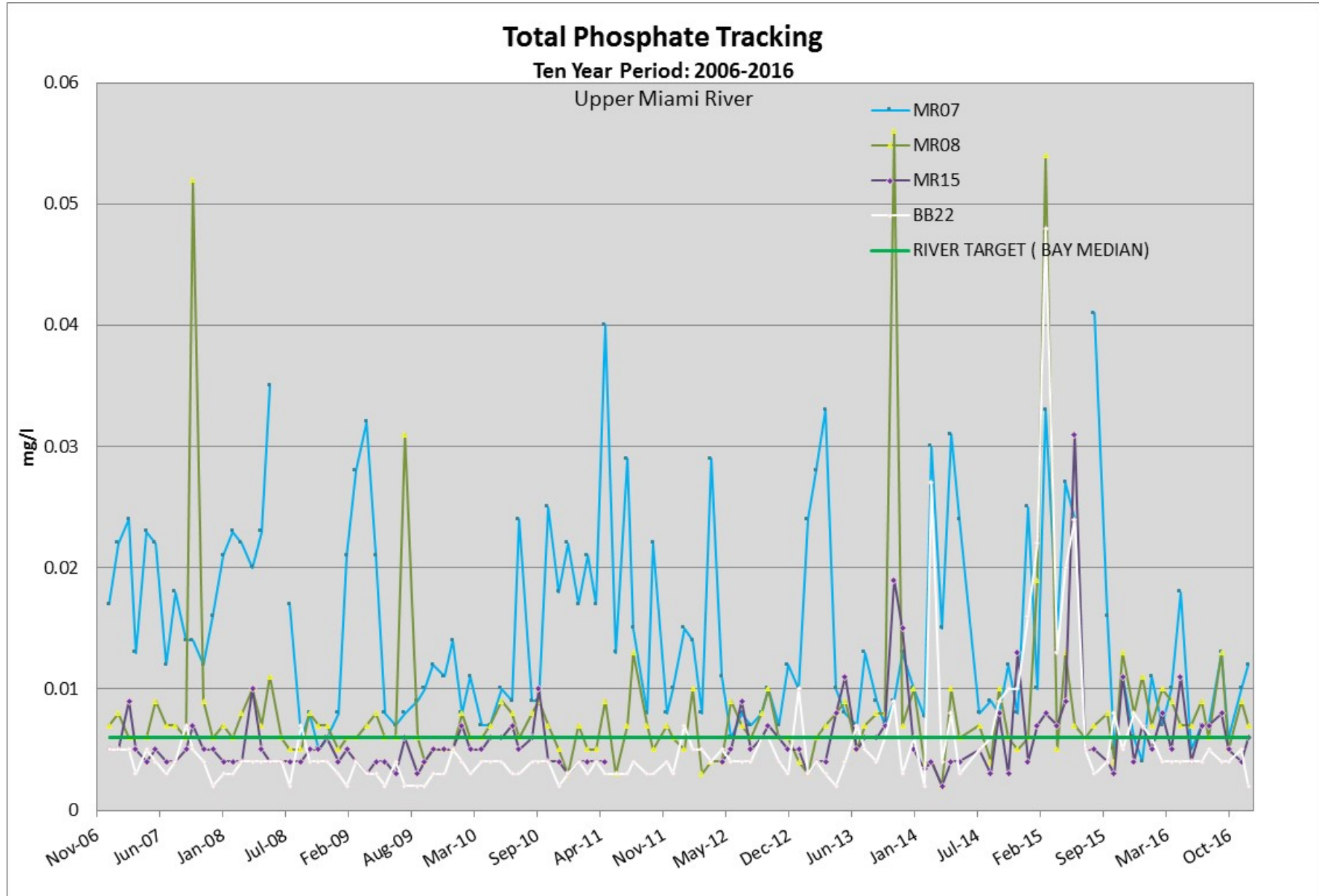


Chart 6.

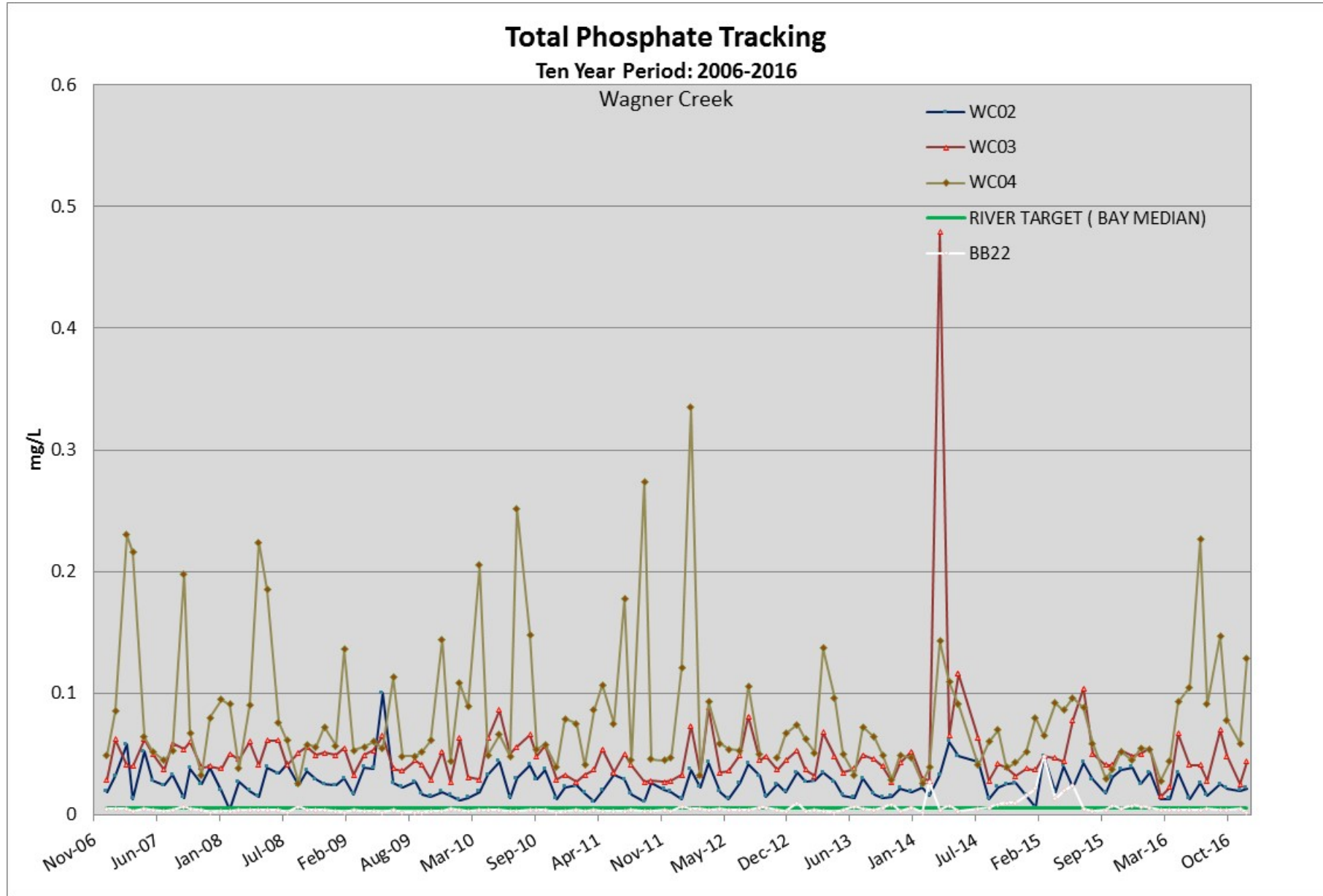


Chart 7.

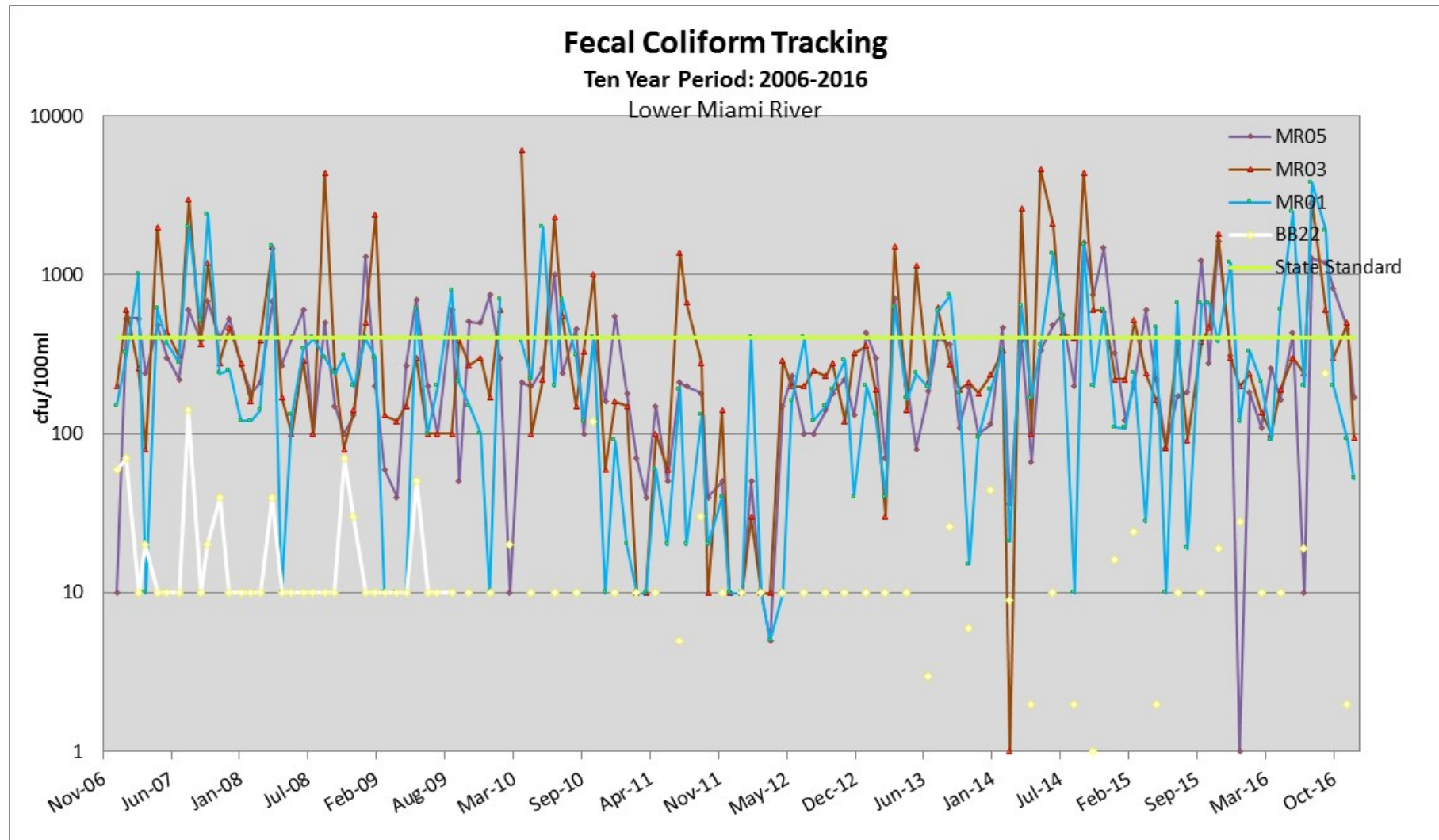


Chart 8.

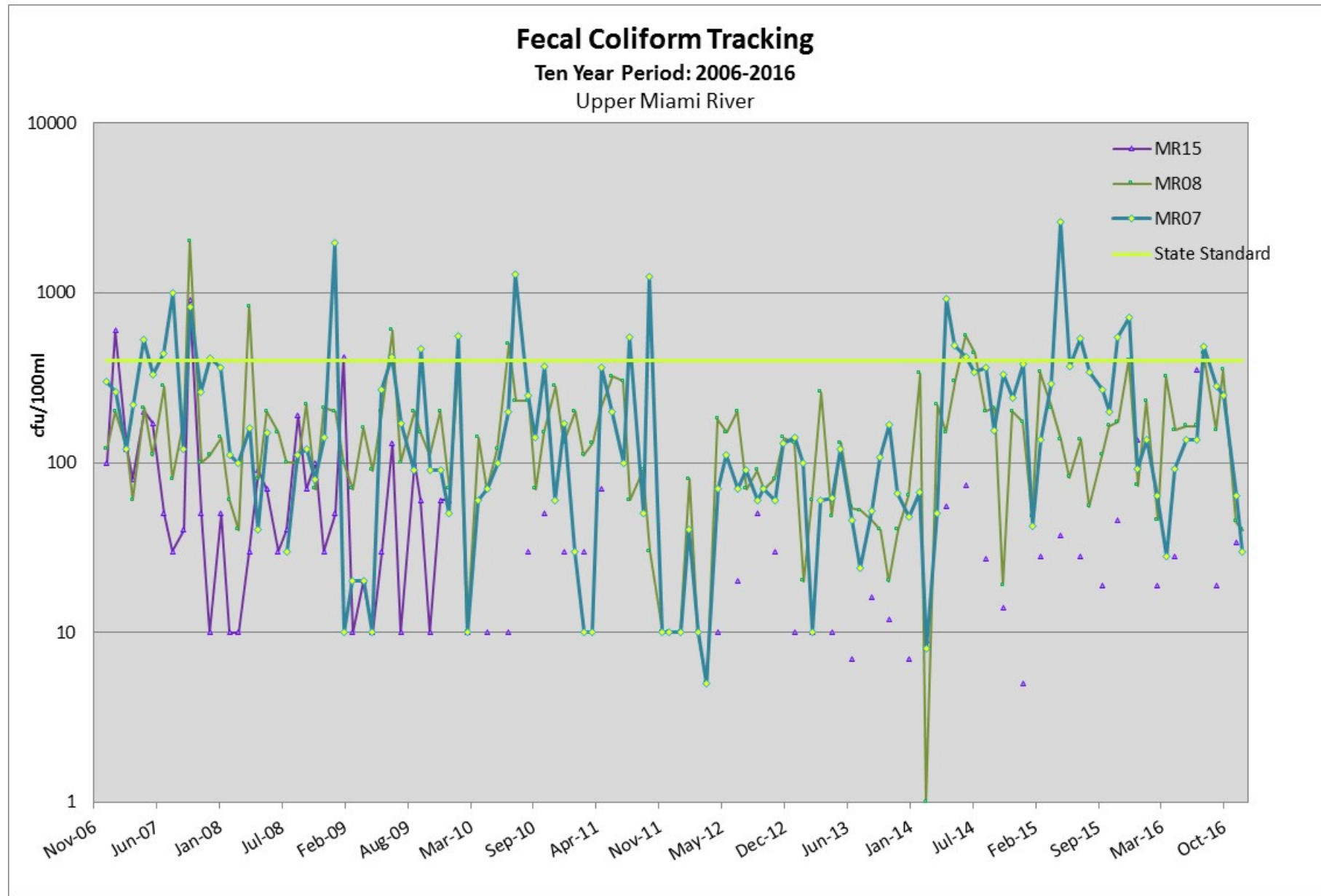


Chart 9.

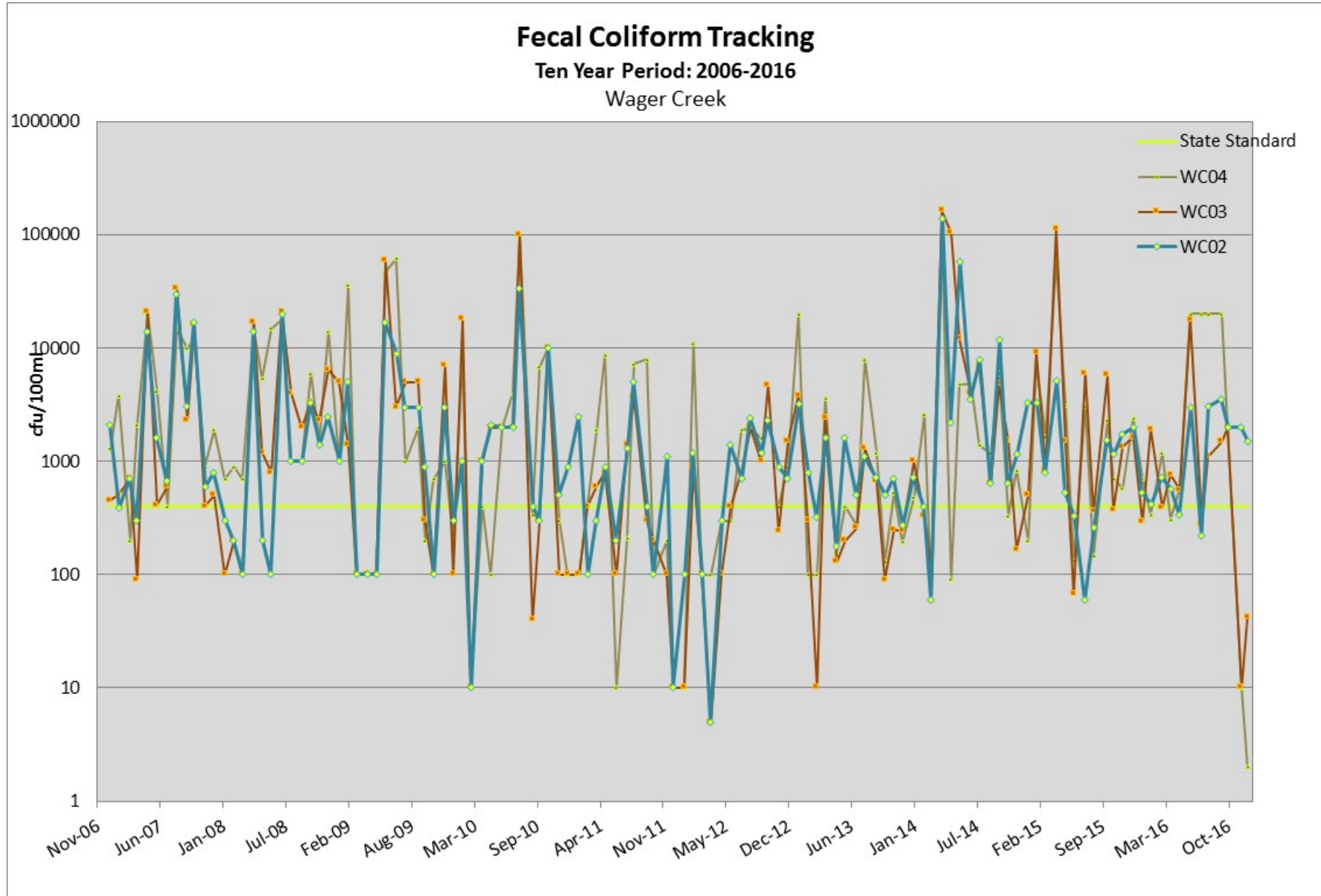




Chart 10.

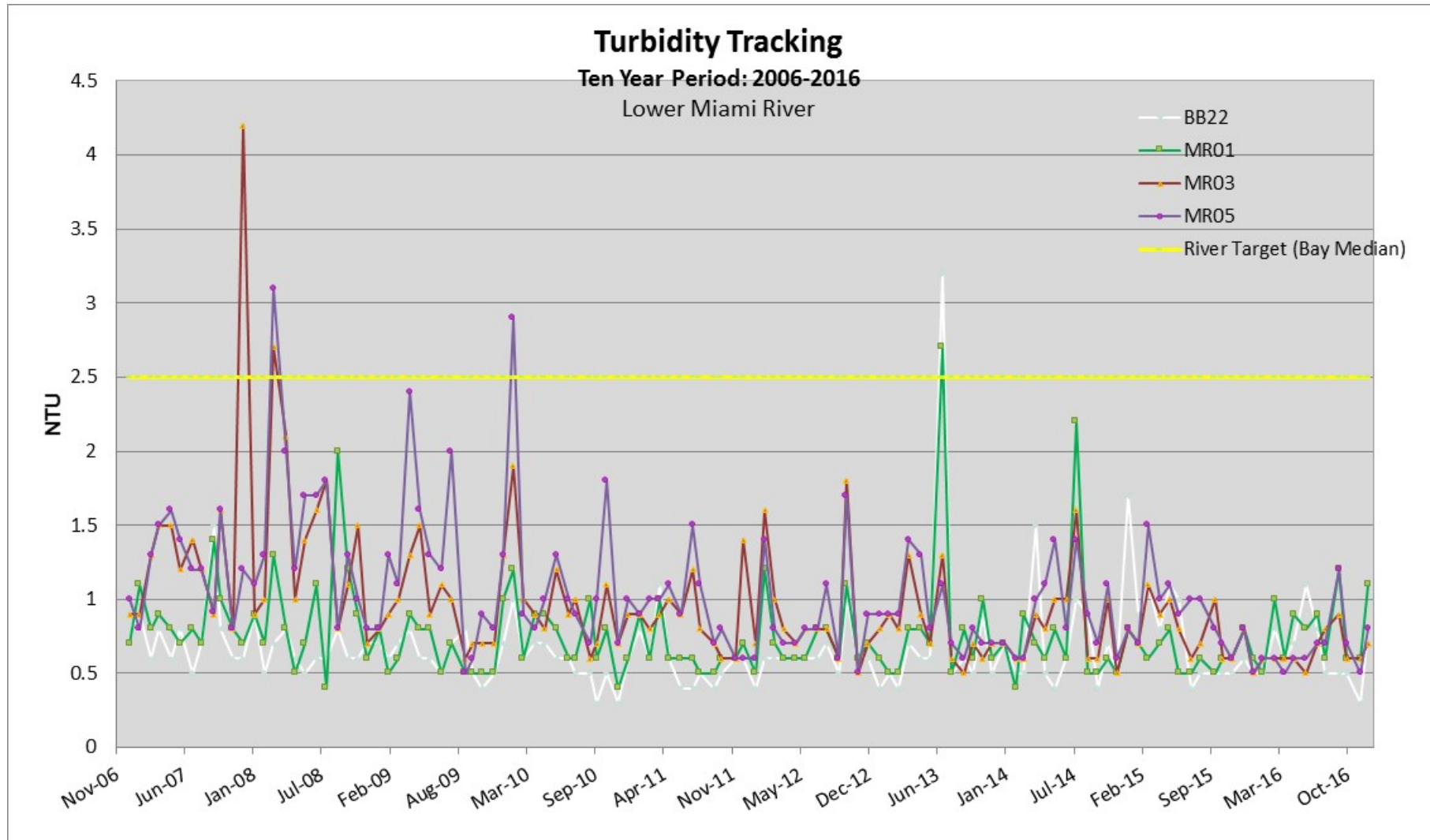


Chart 11.

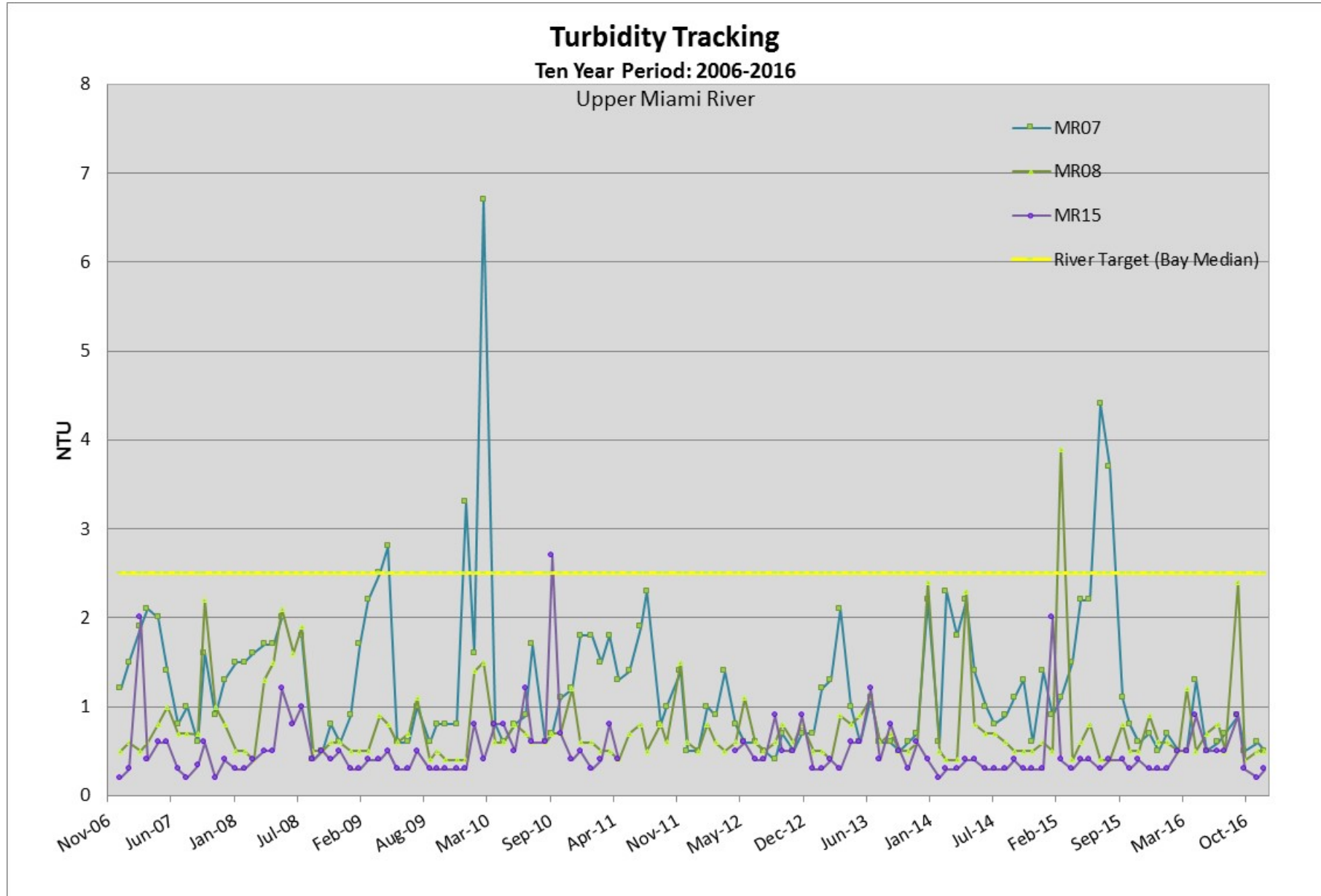


Chart 12.

