



City of Miami

MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT PUBLIC WORKS PORTION FOR SECOND QUARTER 2014

Action Items

1. Storm water*

j. Citywide Inlet and Outfall Cleaning*

Status: A notice to proceed was issued to the City of Miami's contractor for North Zone, South Zone, and Outfall cleaning in October of 2013. The contract ended at the end of June 2014. Public Works Operations continues storm drain cleaning.

k. Inlet Retrofit for the Wagner Creek Basin*

Status: No inlet retrofits took place during the second quarter of 2014.

l. Scavenger 2000 De-Pollution Boat*

Status: This project consists of the cleaning, oxygenation, and decontamination of the Miami River, Seybold Canal, and other navigable waterways. The Seybold Canal work is not included in the five hours per week performed on the Miami River at no charge to the City, but rather is invoiced separately. The work continued during the second quarter. The contract was renewed for an additional one-year period of December 4, 2014 to December 3, 2015.



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- m. Collect, compile, analyze and report of solid waste data from catch basins*

Date	Tons
7/10/2014	16.08
7/16/2014	16.99
7/31/2014	17.65
July Total	50.72
8/5/2014	26.85
8/5/2014	19.46
8/5/2014	26.2
8/5/2014	23.07
8/5/2014	22.34
8/5/2014	26.06
8/6/2014	22.62
8/11/2014	16.68
8/20/2014	14.83
8/25/2014	17.9
August Total	216.01
9/5/2014	17.72
9/24/2014	17.85
September Total	35.57
Quarterly Total	302.30

Status: The solid waste data shown below was compiled based on invoices that were available at the time of the report. The data below are gathered from the dump tickets at the Miami Dade Transfer station for the Vactor Truck Debris Hauling Contract.

- n. Report of on-site storm water treatment alternatives and BMP's*

Status:

- a. Texas Aquatic Harvesting continues citywide canal cleaning and maintenance. Inspection services for this project are performed in-house.



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- b. Waterways where cleanup has taken place include Wagner Creek, Seybold Canal, Lawrence Waterway, Comfort Canal, Ademar Canal, Davis Canal, and the Antonio Maceo Park Tamiami Canal.



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2. Wastewater*

a. Conduct “dye flood” study

Status: No new “dye flood” study for sanitary sewer interconnections was performed during the second quarter of 2014.

3. Enforcement, compliance and education*

a. Implement active inspection of sanitary sewer connections and stormwater drainage during construction*

Status: The City of Miami regularly inspects new construction of storm sewer and sanitary infrastructure as part of the on-going procedures of the permitting process. The City of Miami Building Department inspects the private side and Public Works Department line and grade inspector inspects the public side. Miami-Dade County Regulatory and Economic Resources (RER, formerly DERM) inspects storm sewer system connections.

b. Point Park Environmental Center*

Status:

- i. The Shoreline Project is completed
- ii. The Seybold project is on hold.
- iii. The Parks Department performed research on possible designs for a new structure and presented a proposed floor plan at an Spring Garden Civic Association meeting in April 2008. The SGCA could not come to a consensus on the building, which has deteriorated in the interim. The Parks Department indicated that if the Seybold Canal House were found to be an unsafe structure, then it would be demolished. Due to life/safety concerns, a Building Department unsafe structure inspection of the existing building was requested. On July 6, 2009, the Building Department performed an inspection and determined the Seybold Canal House to be an unsafe structure. The original Seybold Canal House is no longer existing and the park is now open to the public.



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c. Environmental Education

On August 1, 2014, the City of Miami distributed 1,000 stormwater pollution prevention flyers during a back-to-school backpack giveaway.

On August 18-20, 2014 the City along with Miami-Dade County Public Works cooperated on teaching a Stormwater, Erosion and Sediment Control Class and an Illicit Discharge Detection class to train public sector employees, contractors, and the general public on environmental issues. A total of 25 students attended.

On October 23, 2014 the City of Miami Public Works Department provided illicit discharge detection training to the Sanitation Code Enforcement inspectors. Six (6) students were trained.

4. **Monitoring and Research***

a. Complete special studies required under NPDES*

Status: The City of Miami issued a notice to proceed to URS Southern, Corporation dated May 20, 2013 for citywide outfall monitoring. One round of samples has been collected Citywide. A continuation of the notice to proceed for URS to complete a second round of sampling in 2014 was issued and URS collected the second round of samples. The City of Miami is currently in negotiations to collect outfall samples for 2015.

b. TMDL-related monitoring and research*

Status Summary:

The City of Miami and an environmental services consultant finalized a scope of work to provide support services for the Wagner Creek fecal coliform TMDL follow-up process. A Notice to Proceed was issued to the consultant on May 2, 2011. The consultant created a monitoring plan to define better the sources of fecal coliform loading to Wagner Creek and Seybold



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Canal. The City of Miami issued a notice to proceed to TY Lin dated May 2, 2013 to implement the Wagner Creek/Seybold Canal fecal coliform monitoring plan.

TY Lin has completed all six of the proposed six rounds of sampling. Analytical results have been received for all six rounds. During the first round, collected on July 31, 2013, two locations, Stations 8 and 10 exceeded the standard of 800 cfu/100 mL. Station 8 is a surface water sample collected from Wagner Creek near 1265 NW 12 AV. Station 10 is a manhole located at the intersection of NW 12 AV and NW 25 ST, in a residential area upstream of the Allapattah Produce Market. This location was initially selected as a “background” location and was not expected to exhibit such a high level of coliforms. Fecal coliform registered 1120 cfu/100 mL for Station 8 and 1240 cfu/100 mL at Station 10.

During the second round of sampling, Station 16 at NW 17 AV and NW 26 had the highest aqueous fecal coliform concentration at 25,200 cfu/100 mL. This station exceeded all the other concentrations collected during Round 2 by a factor of ten. Most sample locations exceeded the 800 cfu/100 mL standard during the second round collected on August 28, 2013. The third round of samples was collected on September 12, 2013. In that instance, Monitoring Station 16 again had the highest fecal coliform concentration at over 20,000 cfu/100 mL. The value was initially incorrectly reported by the laboratory as exceeding 200 cfu/100 mL. Monitoring Station 6 located on the south side of the NW 11 ST bridge near NW 9 court had the highest fecal coliform result at 4400 cfu/100 mL.

Sediment samples were collected from Wagner Creek and Seybold Canal on August 29, 2013. The highest fecal coliform sediment concentration was 140,000 cfu/g, collected at Station 8 located at NW 14 ST and 12 AV. Stations 15 and 12 also had extremely high fecal coliform levels, at 130,000 and 120,000 cfu/g, respectively. Station 15 is at NW 15 AV and NW 20 ST and Station 12 is located near NW 15 ST and NW 13 CT. The lowest



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sediment concentration of fecal coliform was 2,000 cfu/g at Station 1 near the intersection of NW 7 AV and NW 7 ST.

The fourth round of fecal coliform sampling took place March 7, 2014. Station 16 was moved to a manhole at NW 17 AV and 23 ST due to additional information obtained regarding the storm sewer system and at that time the lab reported its Round 3 concentration at >200cfu/100 mL. This manhole is both upstream of the Allapattah marketplace and downstream of Duarte Park. During this round, Station 7 located at a “mystery outfall” just south of SR 836 behind the Winn-Dixie at NW 11 ST and NW 11 AV had the highest fecal coliform concentration at 6100 cfu/100 mL. Stations 1 and 9a tied for the second highest concentration at 5600 cfu/100 mL. Station 1 is a surface water sample of Seybold Canal near NW 7 AV and NW 7 ST. Station 9a was taken from a manhole located at NW 14 AV and NW 19 ST. All sampling locations except one exceeded the 800 cfu/mL one-time fecal coliform standard. Station 4 located at NW 8 AV and 14 ST registered 100 cfu/100 mL of fecal coliform. Due to the exceedences, upstream sampling points were selected and verified for sampling during the 5th round.

During the 5th round of sampling, upstream samples were initiated for the following locations: Station 8 (2 locations), Station 9a, Station 10, and Station 16 (2 locations). Due to budget limitations, upstream sampling was limited to locations with the most severe fecal coliform contamination levels as determined by statistical analysis. All but two of the locations sampled during Round 5 returned fecal coliform results exceeding the 800 cfu/100 mL one-time standard. Only Stations 3 and 4 met the standard, with fecal coliform not detected at Station 4 and detected at 130 cfu/100 mL at Station 3. Eleven of the samples collected exceeded the laboratory’s quantifiable limit of 20,000 cfu/100 mL resulting in a laboratory qualifier of “too numerous to count”. They were Station 2, Station 8 Upstream 2, Station 9, Station 9a, Station 9a Upstream, Station 10, Station 10 Upstream, Station 11, Station 14, Station 16 Upstream 1, and Station 16 Upstream 2. Of the remaining



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sample locations, Station 1 registered 5700 cfu/100 mL, Station 6 4100 cfu/100 mL, Station 7 11,590 cfu/100 mL , Station 8 11,300 cfu/100 mL, Station 8 Upstream 1 13,300 cfu/100 mL, Station 12 16,500 cfu/100 mL, and Station 16 12,500 cfu/100 mL.

The results of the Round 6 of sampling were inconclusive, as the laboratory was only able to quantify up to a level of 600 cfu/100 mL. Stations 3, 4, 8, and 14 all were less than 200 cfu/100 mL. The City is in negotiation with a consultant to re-sample Round 6, evaluate the data, and create and implement a supplemental monitoring plan, if needed.

The City re-inspected the CEMEX Allapattah concrete batch plant at 1610 NW 21 TER. Once again, the aggregate stockpiles were higher than the wall with sand falling onto the sidewalk. The City will be issuing a notice of violation.

The City of Miami has increased its stormwater trap cleaning in the Allapattah area. The frequency of cleaning depends on rainfall. Previously, the grates and baskets were cleaned approximately quarterly to once every two months. Currently the City of Miami is committed to cleaning the grates and baskets approximately monthly during rainy season.

The City of Miami Solid Waste Department has increased the frequency of street sweeping in Allapattah Marketplace from approximately monthly to approximately once every two weeks.

In July 2012 the City of Miami verified that the storm drain system located at 1265 NW 21 TER is indeed the responsibility of the private property owner and not that of the City of Miami.

In October of 2012 the City of Miami performed an inspection of the Cemex Concrete Batch Plant to determine if sediment and wet conditions from the plant could be creating conditions conducive to fecal coliform growth.



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In December 2012, the City of Miami provided Miami-Dade County the fecal coliform results for the Wagner Creek and Seybold Canal watershed stormwater from the Citywide outfall monitoring project.