



# FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Rick Scott  
Governor  
Carlos Lopez-Canera  
Lt. Governor  
Noah Valenstein  
Secretary

## Phase I Municipal Separate Storm Sewer System (MS4) NPDES Stormwater Audit Report

### I. BACKGROUND INFORMATION

**MS4 Permit Name:** Palm Beach County  
**Permittee:** Palm Beach County  
**Permit Number:** FLS000018 (Cycle 4)  
**Annual Report Year:** Year 1  
**Reporting Period:** 10/01/2016 – 09/30/2017  
**Audit Date/Time:** June 5, 2018 8:00 am – 5:00 pm

#### Inspector(s):

Name	Title	Phone/ Email
Michelle Bull	Environmental Consultant	850-245-7561 <a href="mailto:Michelle.Bull@dep.state.fl.us">Michelle.Bull@dep.state.fl.us</a>
Hector Rivera	Phase II MS4 Coordinator	850-245-8667 <a href="mailto:Hector.Rivera@dep.state.fl.us">Hector.Rivera@dep.state.fl.us</a>

#### Permittee Representative(s):

Name	Title	Phone
Bonnie Finneran	Environmental Director	561-233-2400 <a href="mailto:bfinnera@co.palm-beach.fl.us">bfinnera@co.palm-beach.fl.us</a>
Brian Gentry	Environmental Resource Management (ERM)	561-233-2515 <a href="mailto:BGentry@co.palm-beach.fl.us">BGentry@co.palm-beach.fl.us</a>
Patrick Wille	Environmental Program Supervisor	561-233-2505 <a href="mailto:pwille@co.palm-beach.fl.us">pwille@co.palm-beach.fl.us</a>
Daryl Dawson	Road & Bridge	561-233-3955
Adam Faustini	Road & Bridge Assistant Director	561-233-3956
Brian Fowell	Road & Bridge Assistant Superintendent	561-233-3960
Craig Lloyd	Road & Bridge Superintendent	561-233-3959
Ken Todd	Administrator	561-233-4600
John Tierney	Facilities Development & Operation	561-233-0252
Alan Wertepny	Mock-Roos	561-683-3113 x 231 <a href="mailto:alan.wertepny@mockroos.com">alan.wertepny@mockroos.com</a>

## II. GENERAL COMMENTS

Patrick Willie, currently with the Storage Tanks Program, and is being trained on MS4 permit requirements in Environmental Resource Management (ERM).

Discussed management of stormwater program and stormwater utility fees. The County has studied a fee and determined would be difficult to administer due to multiple interconnected municipalities, and only having County MS4s associated with county roads. The County does manage for flood control. Many neighborhoods have private streets and stormwater systems that discharge to waters of the state.

## III. SITE VISITS

Satisfactory                       Unsatisfactory                       Not Applicable

**Site Type:** Fleet Maintenance Facility

**Site Name and Location:** Vista Fleet Maintenance

**Applicable Permit Provision(s):** Part III.A.3

**Observations:** Equipment wash, fueling, auto shop, Fleet light, fleet heavy, Fire Rescue.

Walked and drove site.

Recommendations: perform litter control and sweep yard near equipment wash area.

**Site Type:** County Construction Site

**Site Name and Location:** Hood Road widening project

**Applicable Permit Provision(s):** Part III.A.9.b

**Observations:** Linear road widening project. Silt fence blown out/not maintained. Multiple storm inlets had no inlet protection and had sediment buildup from recent heavy rains. Stock pile not protected and inundating outfall to a private stormwater pond. The Engineering department inspects County projects.

Image 1: Hood Road



Image 2: Hood Road



**Site Type:** Private Construction Site

**Site Name and Location:** Pointe of Woods Park

**Applicable Permit Provision(s):** Part III.A.9.b

**Observations:** Site is bermed. Wet detention system installed and stabilized. One inlet had filter fabric. One inlet near berm was covered with sediment from recent heavy rains.

**Update:** The county submitted copies of the Notice of Non-compliance letters sent to both construction operators. Documentation included follow-up inspection reports with images to confirm required improvements have been implemented.

IV. SWMP IMPLEMENTATION REVIEW

**Monitoring Program**

- Satisfactory                       Unsatisfactory                       Not Applicable

The County has a Cooperative Monitoring Program with SFWMD in the Lake Worth Lagoon. County staff do field sampling according to SFWMD SOPs. Brian Gentry made sure sampling data was entered into STORET to be used for the latest IWR (impaired water rule) run.

**Assessment Plan:** Not approved. The document submitted was a summary, not a plan.

**Required Improvement: Within 30 days of the audit report,** submit a plan that contains monitoring station and sampling information, EMC/pollutant load activities, and an MS4-specific analysis of water quality and/or pollutant load data to determine areas the MS4 may need improvement.

Element 1: In addition to the map submitted, include a table with monitoring stations, locations and receiving water, and a table of parameters, frequency and sample method.

Element 2: In addition to the summary of watersheds, include a description of how you will compare water quality to county loading data.

Element 3: Include a description of how the water quality and loading data will be used to:

- (1) evaluate trends in pollutant loadings from the MS4 and in water quality; and
- (2) identify portions of the MS4 which can be targeted for loading reduction /corrective action with additional pollutant reduction measures.

**Fiscal Analysis**

Not reviewed during audit.

**TMDL Prioritization**

- Satisfactory                       Unsatisfactory                       Not Applicable

**TMDL Prioritization Plan:** Approved

**Status Report:** E-1 Canal monitoring was originally scheduled for spring 2018, was delayed due to loss of staff member. The County is working with FDOT/E. Sciences on a sampling plan. FDOT will lead a Walk the WBID. The watershed is much larger than WBID.

The County is also working with Boynton Beach and Delray Beach on the Lake Ida TMDL.

Waterbody	WBID	TMDL	Report	Due Date
E-1 Canal	3264A	Fecal Coliform	Bacteria Pollution Control Plan	Year 3 AR
Lake Ida	3262A	TN/TP (EPA)	N/A	

**Part III.A.1: Structural Controls and Stormwater Collection Systems Operation**

- Satisfactory                       Unsatisfactory                       Not Applicable

**Major Outfall Inventory:** Most outfalls discharge into SFWMD canals, most are submerged. Due to static nature of canals, they rarely have erosion caused by high velocity or riprap to maintain.

Reviewed 2015 email from Michelle Bull approving an alternative inspection frequency for major outfalls once every 5 years / 20% annually.

Major outfall map submitted with Year 1 annual report was not detailed. Reviewed listed inventory, which included ID, lat/long, receiving waterbody, size, material etc.

**SOP:** Reviewed Road & Bridge Section structural control inspection SOP. Does not include inspection frequencies.

**Structural Control Inventory:**

Treatment Swales: reported 1224 miles. Discussed difference between types of structures and inspection frequencies. The County may be conveyance swales as treatment swales.

**Structural Control Inspections:**

**Inspection scheduling:** The County has 5 maintenance districts (1 coastal, 4 everglades). Many structures are inspected in reaction to complaints, supervisor windshield inspections, commission members reporting flooding. When structures are inspected/maintained, the whole road is also maintained. Zone supervisors try to inspect storm drains before rain in historical flooding problem areas.

**Scheduled:** ponds, ditches inspected as part of route. Daily district maintenance, public works: potholes, mowing, complaints. Have specific staff to inspect (wet) ditches, clean with heavy equipment (level bottom), inspect after.

**Maintenance** is scheduled when pipe obstructions are noted. Using vac truck, will clean all basins on the road. Noting problem areas-Australian pine needles and erosion.

**Exfiltration trenches:** not well scheduled. Discussed scheduling inspections and using catch basin inspections associated with exfiltration trenches to track.

**Wet detention ponds** are inspected quarterly. Reviewed inspection report. Based on report, it is not clear if the wet pond is retention or detention.

Weirs: reported 0. Some may be captured in pond inspections. Need to evaluate and begin to report.

**Catch Basins:** no inspection form, just a list of the streets maintained by field staff. Inspection are for functionality and flood control. Catch basins associated with exfiltration, inspections include measuring sediment levels.

**Required Improvements:**

- **Within 30 days of the audit report**, confirm percent of exfiltration trenches inspected in Year 1. Submit a plan to inspect exfiltration trenches in accordance with the minimum inspection frequency, 100% every three years or 33% annually.
- **Within 30 days of the audit report**, confirm the inventory of treatment and conveyance swales. Submit a plan to inspect treatment swales in accordance with the minimum inspection frequency, 100% every three years or 33% annually; and a plan to inspect conveyance swales 100% every ten years or 10% annually.
- **Within 30 days of the audit report**, confirm whether the wet stormwater pond is retention or detention.

### Part III.A.2: Areas of New Development and Significant Redevelopment

Satisfactory                       Unsatisfactory                       Not Applicable

Not reviewed during audit.

### Part III.A.3: Roadways

Satisfactory                       Unsatisfactory                       Not Applicable

**Litter Control:** Road and Bridge perform litter control before mowing the ROW of rural areas. Not tracking amount collected. Discussed reporting estimates of amount collected and miles maintained. Litter control is also performed before mowing in stormwater ponds; frequency based on type of mowing: median, slope, shoulder, hand crew.

The County also has a Streetscape program for more populated areas: contractors do landscaping and litter control; reporting address, road, amount collected (by fast food, automotive, household, vegetation.

**Pick Up Events:** County coordinates Adopt-A-Road events. Keep Palm Beach County Beautiful (KPBC Beautiful) is a non-profit organization that coordinates events at roads, parks, waterways, and beaches. It is not a County program but does receive some County funding.

**Street Sweeping:** Reported 2 per year (entire County swept). County staff sweep 4 days/week with 2 sweepers on North and South routes. The goal is to sweep 5 miles a day, all county roads w/ curb and gutter twice per year; avg 3-5 mph. Mileage was previously tracked by the vehicle odometer.

Did a curb and gutter inventory, and now tracking mileage with a DMI-Distance Measuring Instrument). Working on getting a new sweeper.

**Road Maintenance Yards:** Yard is usually inspected twice per year. Reviewed municipal yard inspection checklist. While it is very thorough, we discussed personalizing the report to remove items not applicable to the County facility, and to include storm drain inspections.

### Part III.A.4: Flood Control Projects

Satisfactory                       Unsatisfactory                       Not Applicable

Not reviewed during audit.

### Part III.A.5: Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit

Satisfactory                       Unsatisfactory                       Not Applicable

**Waste Storage Facilities:** Solid Waste Authority is a separate entity from the County. The SWA handles 6 waste transfer stations (with 100-year stormwater retention), waste-to-energy plants, landfills, household hazardous waste collection, and education and outreach throughout the County. Municipalities are responsible for garbage collection from residents and hauling to waste transfer stations.

Reviewed inspection checklists by SWA. Indoor activities.

Visited the waste-to-energy plant, which included educational materials on proper garbage, recycling and HHW disposal.

### Part III.A.6: Pesticides, Herbicides, and Fertilizer Application

Satisfactory                       Unsatisfactory                       Not Applicable

**FDACS License:** Reported all licenses in County. Discussed reporting licensees for County staff and contractors for municipal property. Contracted aquatic herbicide: stormwater ponds as needed for planted littoral zones.

**GIBMP Certification:** reported 9. Discussed confirming staff for County parks and golf courses. Golf Courses: 3 courses. Operated by the County, and by contractor. Discussed operating golf courses according to the DEP BMP Manual. Staff were familiar with the manual.

**Fertilizer Ordinance:** Approved in Cycle 3 Year 2.

**Required Improvements:** In future annual report, report municipal staff who apply pesticides, herbicides, or fertilizer.

### Part III.A.7.a: Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures

Satisfactory                       Unsatisfactory                       Not Applicable

Not reviewed during audit.

### Part III.A.7.c: Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal

Satisfactory                       Unsatisfactory                       Not Applicable

**SOP:** Reviewed checklist for commercial/industrial facilities that may discharge into the MS4. The County only has jurisdiction for MS4 drainage. Area has many waters of the state (SFWMD canals) that drain much of the County.

**Proactive Inspections:** Also reviewed Year 1 inspection checklists completed by Brian Gentry: auto shops, boat shop, manufacturing. Brian inspects storm drains and storage area, and looks for staining. Brian also receive complaints from Road & Bridge. Code Enforcement does not handle ROW, so complaints about HOAs blowing grass clippings into MS4 catch basins are reported to Brian Gentry.

**Training:** Brian Gentry conducting inspections, attends Steering Committee meetings. Recommend training Road and Bridge (catch basin inspectors) for illicit discharges. Discussed checking out videos, participating in Steering Committee training annually, PPT online pbco-npdes.org, or FDOT.

### Part III.A.7.d: Illicit Discharges and Improper Disposal — Spill Prevention and Response

Satisfactory                       Unsatisfactory                       Not Applicable

**Spills:** PBC Fire-Rescue reported 484 spills. Mostly unincorporated, some municipalities. There is no information on the type of spill or whether the spills impacted (or had potential to impact) the MS4. ERM does not work with Fire-Rescue to respond to spills.

**Training:** Reporting Fire Rescue. Recommend training fleet maintenance staff on spill response.

**Part III.A.7.e: Illicit Discharges and Improper Disposal —  
Public Reporting**

Satisfactory                       Unsatisfactory                       Not Applicable

Not discussed during audit.

**Part III.A.7.f: Illicit Discharges and Improper Disposal —  
Oils, Toxics, and Household Hazardous Waste Control**

Satisfactory                       Unsatisfactory                       Not Applicable

Not discussed during audit.

**Part III.A.7.g: Illicit Discharges and Improper Disposal —  
Limitation of Sanitary Sewer Seepage**

Satisfactory                       Unsatisfactory                       Not Applicable

Not discussed during audit.

**Part III.A.8.a: Industrial and High-Risk Runoff —  
Identification of Priorities and Procedures for Inspections**

Satisfactory                       Unsatisfactory                       Not Applicable

Not discussed during audit.

**Part III.A.8.b: Industrial and High-Risk Runoff —  
Monitoring for High Risk Industries**

Satisfactory                       Unsatisfactory                       Not Applicable

**Monitoring:** See above.

**Part III.A.9.a: Construction Site Runoff —  
Site Planning and Non-Structural and Structural Best Management Practices**

Satisfactory                       Unsatisfactory                       Not Applicable

**Site Plan Review:** Brian reviews SWPPPs prior to inspections. Rely on CGP for specific ESC requirements.

**ERP/CGP Coverage:** ROW projects are reviewed by Engineering, Roadway Production Division; projects are bid out. Land Development Permit requires project to have ERP; reviewed by Development Review Office (DRO).

Reviewed notification of requirement for CGP. Platting: splitting up a development site, also has notification. Double counting may include DRO and platting office to same project.

**Required Improvements:** Within 30 days of the audit report, confirm whether the County has Erosion and Sediment Control requirements in land development requirements.

**Part III.A.9.b: Construction Site Runoff —  
Inspection and Enforcement**

Satisfactory                       Unsatisfactory                       Not Applicable

**Inspections:** Reviewed private site inspection checklist. Also reviewed list of private inspections with comments from inspections.

**Part III.A.9.c: Construction Site Runoff —  
Site Operator Training**

Satisfactory                       Unsatisfactory                       Not Applicable

**Inspector E&SC Training:** Discussed reporting. Staff with existing DEP Erosion and Sediment Control Training should be reported on each annual report. All staff that attended refresher training should be reported under annual training.

**Site Plan Reviewer Training:** Brian reviews SWPPP for private sites and has received training.

**Site Operator Training:** Discussed using pre-construction meetings as operator outreach.

**Required Improvements:** In the future annual reports, report annual training for site plan reviewers and permittee (or contracted) operators (may use pre-construction meeting).