



FLORIDA DEPARTMENT OF Environmental Protection

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

Rick Scott
Governor
Carlos Lopez-Cantera
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: City of West Palm Beach
Permit Number: FLS000018 (Cycle 4)
Annual Report Year: Year 1
Reporting Period: 10/01/2016 – 09/30/2017
Audit Date/Time: June 11, 2018 8:00 am – 5:00 pm

Inspector(s):

Name	Title	Phone/ Email
Michelle Bull	Environmental Consultant	850-245-7561 Michelle.Bull@dep.state.fl.us

Permittee Representative(s):

Name	Title	Phone
Stephon Harris	Utilities Operation & Maintenance Superintendent, Stormwater	(561-822-2168 harriss@wpb.org
Ms.Poonam Kalkat	Director of Public Utilities	561-822-2200 pkalkat@wpb.org
Louise Wardell	Environmental Compliance Specialist, Stormwater	561-822-2062 lwardell@wpb.org
Manuel “Manny” Gonzalez	Engineering	MGonzalez@wpb.org
Tracy Ward	Engineering	tward@wpb.org
Anne Capelli	Mock-Roos	561-683-3113 x 287 anne.capelli@mockroos.com

II. GENERAL COMMENTS

One Water movement: Looking at stormwater as a source for drinking water. Analyzing water quality to be more predictive.

Discussed cooperation between departments. The City is working on improving their communication with different departments. Discussed requesting information quarterly, to prevent issues with gathering information annually.

III. SITE VISITS

☐ Satisfactory

☒ Unsatisfactory

☐ Not Applicable

Site Type: Private construction site

Site Name and Location: Woodfield development

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

Observations: walked perimeter of project. Noted poorly maintained silt fence around western perimeter of site; however, the project in this area was lower than the surrounding sidewalk with no runoff seen. On the southeast corner, there was a stockpile with 2 failed silt fences, and a small amount of runoff and sediment was observed. On the eastern side, the driveway had a large-gravel entrance, and runoff with sediment was observed. While the drains in these two areas had filter fabric, they did not have socks or other inlet protection.

Site Type: Permittee construction site

Site Name and Location: Clamatis Street StreetScape project

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

Observations: Walked perimeter of project with site operator. All 10 storm grates were protected with filter fabric and socks. Grates are currently above grade of the project, and any ponding water is soaking into the ground. The project includes widening the sidewalks, replacing gutter with valley gutter, installing pervious parking and exfiltration, and replacing palm trees with oak trees. This is a phased pilot project for the City. No issues were noted.

Site Type: fleet maintenance facility

Site Name and Location: Municipal Complex Fleet Management Area

Applicable Permit Provision(s): Part III.A.3, 5

Observations: Loise led an inspection of the site. The inspection included inspecting storm drains, waste chemical storage with secondary containment, yard and sweeping waste bins with catch basins. We talked with staff about spill response training. Most catch basins included filter socks. Some stormwater is captured onsite, but it was unclear if drains around fleet maintenance building was self-contained or connected to the storm system through the rest of the site. Some sediment buildup was noted in the fleet maintenance drains.

Required Improvements:

- **Within 30 days of the audit report,** submit documentation of the notice to the site operator (verbal, email or inspection form, etc.) and follow-up images of corrective actions.
- Investigate the drainage around the fleet maintenance building to determine where it discharges.
Within 30 days of the audit report, provide a summary of the investigation.

General observation: During the inspections, some storm drains were noted covered in leaf debris or having vegetation. Louise immediately notified the stormwater staff, who deployed a crew to rake the storm drains and remove vegetation. It appeared the heavy leaf debris and sediment on the sidewalk may have been exacerbated by the lack of groundcover in the adjacent landscaped treed area. Thank you to City staff for your prompt response.

IV. SWMP IMPLEMENTATION REVIEW

Monitoring Program

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

The Assessment Plan submitted is approved.

Fiscal Analysis

Not discussed during audit.

TMDL Prioritization

☐ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

TMDL Prioritization Plan: Did not discharge to TMDL WBID at permit issuance.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Major Outfall Inventory: Submitted map of all major outfalls.

Structural Control Inspections: During the upgrade to Hiperweb, the City lost 6 months of data.

Major outfalls: Vac truck driver performs inspections, and maintenance during inspections; may use a boat to access submerged outfalls. Reviewed inspection forms and work orders; Incl Fac ID, date, function, ID, erosion, headwall, etc.

Pollution control boxes: inspected quarterly, separate inspections by vac truck. Reviewed work orders. Provided quarterly work orders after the audit.

Catch basins: inspected by zone; create a work order for vac crew (2 vac, 1 TV truck) if debris found.

Canals (7) with 3 control structures: schedule sections of canal to inspect daily, all canals monthly.

Golf Ave Canal inspected weekly.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

New/Redevelopment Projects: Reviewed list of projects. **Stormwater Master Plan:** Lots of projects going on, including a penny tax. Updating a Stormwater Master Plan, including an evaluation of the stormwater system based on type and age, updating with problem areas. Also included water quality in stormwater projects, and sea level rise. See FSA conference. Hurricane season in 2017 made Fire and EMS more aware and versed in stormwater issues and flood control. Piloting green infrastructure projects. Have Complete Streets and Lane Diet.

The City requires projects to have WMD/ERP permits, and code requires a percentage of pervious surface. Future Proposal to LDC: Relax building height restriction if project includes green space; require tree islands for water quality. Discussed reporting in the Year 2 annual report LDC review.

Part III.A.3: Roadways

☐ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Not discussed during audit.

Part III.A.4: Flood Control Projects

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Projects: 16. Roadway utility projects include improvement of stormwater system. Also have problem areas to add exfiltration, etc.

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: CWPB Complex. Includes yard waste collected from customers, and street sweeping debris stored onsite before transported.

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

☐ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Not discussed during audit.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Legal Authority Changes: Discussed updating codes and business permit processes to address illicit discharges from small businesses such as car washes, pressure washing, restaurants, etc. The City finds it easier to implement ordinances the County adopts.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Proactive Inspections: City in 5 zones, cleaning grates, tap ins for pools, etc.

Reactive Inspections: 5 zones, Loise inspects each zone daily. Loise does windshield inspections to look for water flow into drains, grease marks behind restaurants, etc. Stormwater staff look for illicit discharges during storm drain maintenance, note on daily sheet and report to Loise.

Reviewed Community Plus tracking system. Examples in system: roof blue during the rain. City vac'd out but had flowed to intercoastal. 2. Pita King discharging grease out door to storm drain.

Local problems: Pool draining, mobile car washes, food trucks.

Enforcement: If pollutant is non-recoverable, the case goes to magistrate, who determines fine, up to \$1000 per day, up to \$15000 per violation. Code Sec. 90-203. Reviewed door hanger for illicit discharge in neighborhoods, which has Loise's contact information. Discussed special events permit to include illicit discharge requirements.

Training: Loise, and all stormwater field staff (19staff, 2 new). Also discussed city-wide training using CityEdge. Recommend training Utility staff, then making available to all city staff. City can also incorporate a field component to the training. Discussed Code Officers, Police, Fire, presentation to City

Commission. Have IPP (industrial pre-treatment) and FOG (fats oils & grease) programs that help with restaurant ID complaints.

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

☐ Satisfactory ☒ Unsatisfactory ☐ Not Applicable

Spills: 132. The Fire Department notifies through dispatch if affecting a storm drain. Stephon's team Treat as illicit discharge and respond immediately and does clean up after spills.

Fire Department: 104 trained.

Training: Illicit discharge training also includes spill response, which stormwater staff attend. Discussed reporting in annual report.

Required Improvements: In future reporting periods, train fleet maintenance staff.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Education: Grassy Waters, ISO status requires education. The City is researching Adopt-A-Storm Drain and Adopt-A-Canal bank programs. Expand trails along stormwater systems, starting with Clear Lake.

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

High risk facilities: Solid Waste Authority owns/operates all landfills. Industrial Pretreatment group (IPP) inspects high risk facilities. Discussed that the permittees need a better definition of high-risk facilities. Reporting IPP facilities as high-risk.

Recommend evaluating the list of facilities to determine which facilities discharge into the MS4 and define which City department performs high-risk inspections. If using IPP inspections as high-risk facility inspections, recommend including storm drain / illicit discharges on inspection forms.

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: Engineering Department requires a Performance Bond for any dirt turning activities, which includes erosion control (Ordinance 4060-07-stabilize site, even for demolition). Reviewed form. Pre-construction: review 10-2, require SWPPP. Currently reviewing process (process mapping) consultant has suggested software, which hasn't been chosen yet. Erosion and Sediment Control will be included in the site plan review process.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Inspections: Check for dewatering permit.

Private Projects: Engineering Department construction site inspector looks for illicit discharge and erosion and sediment control; an inspector is assigned to each project, four inspectors. Contractor notifies City within 72 hrs. of work. After contractor mobilizes, City performs inspection (sometimes before the calls) for BMP installation.

During construction: City employee (ESC inspector) is required onsite during connection to City utility, where inspector performs an ESC inspection during that connection.

Final stabilization: inspected for BMPs being removed within ROW. And Certification from Engineer before issue a CO (certificate of occupancy).

Reporting: daily report per site: includes violations, notification given verbally of corrective actions, reinspect (within one to two days). Reviewed inspection checklists for multiple projects after the audit.

City project: Consultants act as project manager. Engineering inspector inspecting City projects the same as private construction sites.

Non-CGP: Projects that impact the ROW (less than an acre, driveways etc.) inspected. Illicit Discharge staff also perform inspections on sites less than one acre if noted during daily routes, including SFH, etc.

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

☒ Satisfactory ☐ Unsatisfactory ☐ Not Applicable

Inspector E&SC Training: All 4 inspectors have DEP cert and Steering Committee training. Have FSA Level 1 and Level 2 operator. Have new staff, which have received recent training. Reviewed certificates.

Site Plan Reviewer Training: Manny does all site plan reviews. Has DEP cert and attended Steering Committee training.

Site Operator Training: 6 sites, did not report operator outreach.

Required Improvements: In future reporting periods, perform and report outreach to permittee (or contracted) operators. May use kick-off / pre-construction meeting or initial site inspection (may be project manager) with operator as outreach.