


DEPARTMENT OF PUBLIC WORKS

BULLETIN No. 40

Subject: **SWALE AND STORMWATER STRUCTURE MAINTENANCE SOP**

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Approved:


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I. OBJECTIVE

This Standard Operating Procedure SOP specifies responsibilities and procedures for inspecting and cleaning of swale areas and stormwater structures (drains) in the City of Miami.

II. RESPONSIBILITIES

1. The Director of Public Works, or his designee, is responsible for the administration of this SOP.
2. The Director of Public Works, or his designee, is responsible for the inspection of the swales and stormwater drainage systems, and to ensure that the same are cleaned in accordance with this SOP.
3. The Director of Public Works, or his designee, is responsible for maintenance of all grassed areas at medians.
4. The Director of Public Works, or his designee, is responsible for the enforcing of the National Pollutant Discharge Elimination System (NPDES) permit and Section 54- Streets and Sidewalks of the City Code.
5. The Building Official and the Code Enforcement Division of Neighborhood Services (NET) are responsible for enforcing City Code.
6. Property owners are responsible for maintaining swale areas on their properties and grass areas in front of their property. City personnel shall not enter on private property unless an easement has been obtained, or such entry is deemed to be an emergency (with written permission of the home owner).

III. JURISDICTION

This SOP covers all swales and drains within the City of Miami rights of way. Miami-Dade County and State rights of way are not maintained by City of Miami, unless a maintenance agreement is ratified by the City Commission.

IV. AUTHORITY

1. The Florida Department of Environmental Protection, as authorized by the Federal Environmental Protection Agency, has determined that an MS4 permit is required for the operation of the City of Miami stormwater system.
2. Chapter 49 of the City Code, Public Works Bulletins No. 25 and No. 26 and the City's National Pollutant Discharge Elimination System (NPDES) Permit FLS000002, give the Director of Public Works/ his designee authority to enforce this SOP.

3. Section 49-4 of the City Code and the City's NPDES, give authority to the Director of Public Works to regulate discharge of excavation of waste water, erosion and sediment control for construction sites. (Bulletin # 25)
4. Section 49-5 of the City Code prohibits the discharge of sanitary sewer into storm sewers, and gives the authority to the Director of Public Works to regulate violations.
5. Where the property owner has dedicated a drainage maintenance easement, the City of Miami has legal authority to enter private property for the purposes of inspecting and maintaining swales and/or drains.

V. IDENTIFICATION OF PROBLEMS

1. The Director of Public Works, or his designee, shall inspect all swales semi-annually.
2. The Director of Public Works, or his designee, shall inspect all drains semi-annually
3. Following each major storm, the Director of Public Works, or his designee, shall inspect all swales and drains for debris and erosion.
4. The Director of Public Works, or his designee, shall inspect all complaints submitted by the public or other City of Miami Departments.
5. If an inspection identifies a problem, the inspector shall describe it to the Environmental Section by using the drainage complaint tracking system.
6. If a complaint is generated by the NET Complaint Tracking System, results shall be posted as soon as the disposition is determined.

VI. MAINTENANCE

Five types of maintenance problems:

1. Trash: Man-made objects such as garbage, tires, lumber, furniture, and appliances. Animal carcasses are also considered trash. This trash is picked up by the Department of Solid Waste on a weekly basis.
2. Minor Problem: Vegetative Growth, tree limbs and other "naturally" occurring debris. This Vegetative Growth is picked up by the Department of Solid Waste on a weekly basis.
3. Obstruction: Fallen trees, culvert damage, large appliances, etc. that by itself, cause obstruction to the flow of water. This obstruction is picked up by the Department of Solid Waste on a weekly basis.
4. Construction debris: construction debris such as bricks, sand, concrete, metals, etc. are to be disposed by the contractor and no such debris is allowed overnight at swales within the City of Miami.
5. Garbage: House-hold trash, daily garbage disposal containing food waste, etc. This garbage is picked up by the Department of Solid Waste on a weekly basis through an automated collection system.

Maintenance duties:

1. On public property: The Director of Public Works, or his designee, shall remove trash and minor problems at the next convenient time. Obstructions shall be removed as soon as possible according to the Solid Waste Department "pick-up" schedule. No construction debris is allowed overnight at swales within the City of Miami. The Department of Solid Waste has designated "trash hole" locations within the rights of way. Trash, minor problems and obstructions are deposited at this "trash hole" for collection by the Solid Waste Department. Public Works Operations is responsible for filling with appropriate filling material the trash holes. The NET offices together with the Department of Off-Street Parking place "no-dumping" signs at swales at the request of and with the consent of the home owners affected by the regulatory sign.

Maintenance duties (Cont'd):

2. Semi-annually, the City of Miami shall perform scheduled inspection and maintenance for inlets, pipes, exfiltration drains, pollution control structures, culverts, canals, swales and other structural controls, etc.
3. On private property with dedicated easements: trash, minor problems, and obstructions, shall be reported to the owner. If the owner does not remove the problem within 7 days, the Director of Public Works shall assume responsibility for the problem, and treat the site as public property. If a pattern of dumping is apparent, the Code Enforcement Division shall take action to have the owner pay for the maintenance work in accordance with the terms of the assessment.
4. On private property without drainage maintenance easements: Trash, minor problems, obstructions, and construction debris shall be reported to the property owner for removal and correction. If the owner does not remove or correct the problem within 7 days, the Director of Building and Zoning shall consult with the Code Enforcement Division about pursuing legal action to have the owner abate the problem.

DRAINAGE MAINTENANCE FILE

The City Manager and the Department of Neighborhood Services shall have access to Code enforcement files.

The Storm Water Section of Public Works is responsible for keeping a current complaint base file for drainage incidents. These incidents are described as follows: rain water standing on the swale area, debris inside drain, collapsed pipe, street flooded with no drain, trash hole in need of filling.

The Storm Water Section of Public Works shall create a storm drainage complaint system for the use and access of all inspectors. This system will be linked to the City's Geographic Information System (GIS). This information will be posted on the web page for tracking of the City's NPDES permit progress.

Through the use of GIS, each city inspector will be able to update information regarding location of drain, last time inspected, and maintenance performed on the system.

CRS ITEM 440
(Public Works)

Public Works maintains a computer database (R-base/ Access) of drainage problems within the City. These flooding complaints are received from the public and any other department within the City and they are tracked until resolved. The attached print out shows only the basic information fields and is sorted by City map sections (36). There are a total of 17,200 inlets, 800 manholes and 150,000 linear feet of storm sewer pipe within the City of Miami.

As part of the City's Phase I National Pollutant Discharge Elimination System (NPDES) permit process the City Storm Sewer Index maps were converted to Geographic Information System (GIS) format in 1993. The enclosed base map and its associated storm water database attributes are operational on the City's GIS computer system. Through semi-annual inspections of the drains, the system will be upgraded accordingly. The semi-annual inspection of the swales will be created into a new data base for use through GIS.

The City currently has an active program for training Department of Environmental Protection (DEP) Qualified Stormwater Management Inspectors as part of the City's effort to improve the quality of the waters of the State.