

**Town of Mangonia Park, FL  
(Palm Beach County, Florida)**

**MS4 Permit No. FLS000018-004**

**Part V. – Monitoring Requirements; Sub-part A. –  
Assessment Program**

**Assessment Program Objective**

The purpose of this assessment program is to provide information for the Town of Mangonia Park to determine the overall effectiveness of its Stormwater Management Program (SWMP) in reducing stormwater pollutant loadings from its Municipal Separate Storm Sewer System (MS4) to receiving water bodies.

**Town MS4 Commentary.**

The Town of Mangonia Park is contained within section 5 T43 R43 in Palm Beach County, Florida (Ref Att. Map). Within the Town area (600+/- Square acres) only 50+/- acres are in 2 MS4 basins. Each Basin has its own outfall. The Town in both basins has maximized the amount of exfiltration trench (primary treatment facility in each basin). The Town is dependent on group activities and will reviewing the data the group supplies to evaluate out systems.

**Assessment Program Components**

As required by the MS4 Permit, the following parts make up this Assessment Program:

- A. A Water Quality Monitoring Plan – The water quality monitoring plan is intended to identify local sources where urban stormwater is adversely affecting surface water resources (Joint Report to be referenced)
- B. A Pollutant Loading Estimate Plan – The pollutant loading exercise is to estimate the Pollutant Loading from the MS4 contributing area, based on land uses and BMPs-(Group to supply to Town)
- C. An Evaluation and Response Plan – The response plan is the plan of action to be taken based on the results from A. and B. and will be used to:
  - 1. evaluate trends in pollutants loading from the MS4
  - 2. evaluate trends in water quality (of discharge from the MS4)
  - 3. identify portions of the MS4 to be targeted for loading reduction/corrective action

### Part A – Water Quality Monitoring Plan

The Town is going to utilize the ambient water quality data obtained by the group from an existing and monitored sampling station most proximal to Town's outfalls.

#### Monitoring Locations

Based on the location of the 2 outfalls (MPG 001 and MPG 002) of our MS4, 1 monitoring station has been selected. The following table identifies the monitoring station, along with relevant information about each location.

MS4 Monitoring Stations Table

Monitoring Station Number	Location Description	Latitude/ Longitude	Receiving Water Body
12A	S. SIDE 45 <sup>TH</sup> ST BRIDGE	LAT 26.75868 LON -80.08830	C-17

#### Sampling Method

The Town will be utilizing the group's PBC ambient monitoring data for the WQ sampling program. Please refer to the joint annual report for details on the sampling method(s) used.

#### Monitoring Parameters

The Town will be using and reviewing the Group's monitoring program.

### Part B – Pollutant Loading Estimate Plan

The Palm Beach County MS4 permittee group will be developing pollutant loading estimates during the 3<sup>rd</sup> year of this permit cycle, using the SIMPLE protocol. In order to provide each permittee with pollutant loading estimates that reflect their respective MS4 areas, the group effort will provide the loading estimates "by MS4," in addition to "by watershed" (as was done in past permit cycles). Prior to Year 3, the Town of Mangonia Park will participate in this effort by reviewing its MS4 contributing areas to each receiving water, and will provide updated information on the area extents and the land uses located therein. In addition, any water quality best management practices (BMPs) that are in place within the MS4 area, will be identified, along with their geospatial extent.

In accordance with the MS4 Permit, pollutant load estimates for the following parameters must be developed once during each permit cycle: Biochemical Oxygen Demand (BOD<sub>5</sub>), Copper (Cu), Total Nitrogen (TN), Total Phosphorus (TP), Total Suspended Solids (TSS), Zinc (Zn). This will be provided to the Town, by the group, for analysis and assessment.



The EMC values to be used in the Cycle 4 pollutant loading estimates are the same as those used in Cycle 3. This will provide consistency in comparing data to previous estimates.

The group's estimated pollutant loading results will be provided to the Town for use in this assessment effort.

To determine a practical estimate of the current pollutant loading, Mangonia Park will utilize the land use based pollutant loading estimates provided by the group as the starting point from which pollutant load reductions will be subtracted. The pollutant load reductions will be estimated based on the BMPs that have been put in place within the MS4 contributing areas. In this way, when future estimates are done, and potentially additional reduction measures or BMPs are put in place, the estimated pollutant loading will reflect the reductions.

#### Part C – Evaluation and Response Plan

Once the Assessment Program is approved by FDEP, presumably sometime during Year 2 of the permit cycle, the Town will extract sampling information from prior joint annual reports and evaluate against the group's analysis of the Town's loading and BMP removal calculations. The first annual report on the Assessment Program will be concurrent with the Year 3 Annual Report Form (March 2020).

Water quality monitoring results will be available annually, and the most recent year's data will be compared to that which came before, with respect to our MS4 receiving water body. A summary of the water quality monitoring data, with respect to the Town's MS4 will be developed and included in Assessment Program Annual Report.

The pollutant loading estimates developed, by the group for each MS4, during Year 3 of the permit cycle will be reviewed, and if possible, compared with previous permit cycles, with respect to our MS4. A discussion of the comparison will be included in the Assessment Program Annual Report.

Receiving water trending reports/graphs for various parameters, as presented in the Joint Annual Report, will be reviewed, and a discussion will be included in the Town of Mangonia Park's annual Assessment Report.

Based on the data from the water quality monitoring and the pollutant loading estimates, an effort will be made to determine if any portion of the MS4 should be targeted for additional loading reduction efforts, or additional pollutant control measures, within the limited physical area the Town has to work with.



