

# **Town of Cloud Lake**

NPDES Stormwater Permitting Program

## ***'Monitoring Requirements/ Assessment Plan'***

(MS4 Permit No. FLS000018-004, Part V, Sub-Part A)

Prepared by JLH Associates

August, 2017

**TOWN OF CLOUD LAKE**  
MS4 Permit No. FLS000018-004  
Part V. – Monitoring Requirements  
Sub-part A. –Assessment Plan

**Assessment Program Objective**

The purpose of this assessment program is to provide information for the Town of Cloud Lake 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.

**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
- 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
- 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**

***As a co-permittee, the Town of Cloud Lake uses the ambient water quality data obtained through the Palm Beach County NPDES program, where the Northern Palm Beach County Improvement District is the Lead Permittee.***

**Monitoring Locations**

Based on the location of the outfalls of our MS4, two (2) monitoring station have been established. The following table identifies these monitoring stations, along with relevant information about the location. More specifically, Station 37B is located upstream approximately eight (8) miles west of Cloud Lake at the intersection of SR 7 and Southern Boulevard (SR 80). Station C51S155 is located east of Dixie Highway at the discharge point into Lake Worth (Intracoastal Waterway) approximately two (2) miles south and east of the Town of Cloud Lake.

### MS4 Monitoring Stations Table

Monitoring Station Number	Location Description	Northing/ Easting	Receiving Water Body	Verified Impaired?	Adopted TMDL?
37B	C-51 Basin	853637.29/916592.84	C-51 Stub Canal	No	No
C51S155	C-51 Basin	841132.85/964349.43	C-51 Stub Canal	No	No

## Sampling Method and Monitoring Parameters

Information on the sampling and monitoring parameters is contained in the group Joint Annual Report (refer to [www.pbc-npdes.org](http://www.pbc-npdes.org) under Annual Reporting).

The Town will review the water quality data in the C-51 East Basin ( See C-51 Report) to identify notable nutrient water quality and perform an assessment comparison with applicable water quality standards.

## 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 Cloud Lake will participate in this effort by reviewing its MS4 contributing areas to the 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.

The group’s estimated pollutant loading results will be provided to each permittee for use in this assessment effort.

To determine a practical estimate of the current pollutant loading, the Town of Cloud Lake will use 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 of Cloud Lake will utilize data based on the sample results performed by the PBC ERM and compiled in the Joint Annual Reports. 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 C-51 sampling points. A summary of the water quality trends/graphs, with respect to our MS4 and the group's monitoring stations (ex. 37B and C51S155) will be developed and evaluated, and included in the Town's Annual Assessment Plan.

The pollutant loading estimates developed during Year 3 of the permit cycle will be reviewed and adjusted based on the Town’s Stormwater Management Programs (litter control, public education, Fertilizer Ordinance etc.) as appropriate. Based on the two assessments, a determination of the effectiveness of the of the Town's program and whether there is a need to implement additional pollutant reduction measures will be made.

# Location Map for Water Quality Monitoring Sites



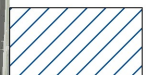
## Legend

**Boundary2018**

**FNAME**



TOWN OF CLOUD LAKE



TOWN OF GLEN RIDGE



WQ\_Stations\_2017

