



Florida Department of Transportation

**RICK SCOTT
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Florida's Turnpike Enterprise
P.O. Box 9828, Fort Lauderdale, FL 33310
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**RACHEL D. CONE
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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 Florida's Turnpike Enterprise (FTE) 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 Approach

Florida's Turnpike Enterprise will be using a two-part approach to evaluate water quality and pollutant loading within its discharge areas. This evaluation and response plan includes using Palm Beach County ambient water quality station data in conjunction with Palm Beach County specific pollutant loading Event Mean Concentration (EMC) Value for major highways. This approach will allow FTE to; evaluate trends in pollutants loading from the MS4, evaluate trends in water quality (of discharge from the MS4), and identify portions of the MS4 to be targeted for loading reduction/corrective action.

Palm Beach County water quality monitoring locations

Based on the location of the outfalls of our MS4, eight monitoring stations have been selected. The following table identifies these monitoring stations, along with relevant information about each location.

Monitoring Station #	Location Description	Receiving Water Body	Verified Impaired?	Adopted TMDL?	Parameters Sampled
16	Palm Beach Co Sta	C-15			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
18	Palm Beach Co Sta	C-15			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
22	Palm Beach Co Sta	C-16			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
23	Palm Beach Co Sta	C-16			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
15	Palm Beach Co Sta	C-51			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
44	Palm Beach Co Sta	C-51			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
33	Palm Beach Co Sta	C-18			TN,TP,DO,CON,PH, Chl-a, Temp, Metals
34	Palm Beach Co Sta	C-18			TN,TP,DO,CON,PH, Chl-a, Temp, Metals

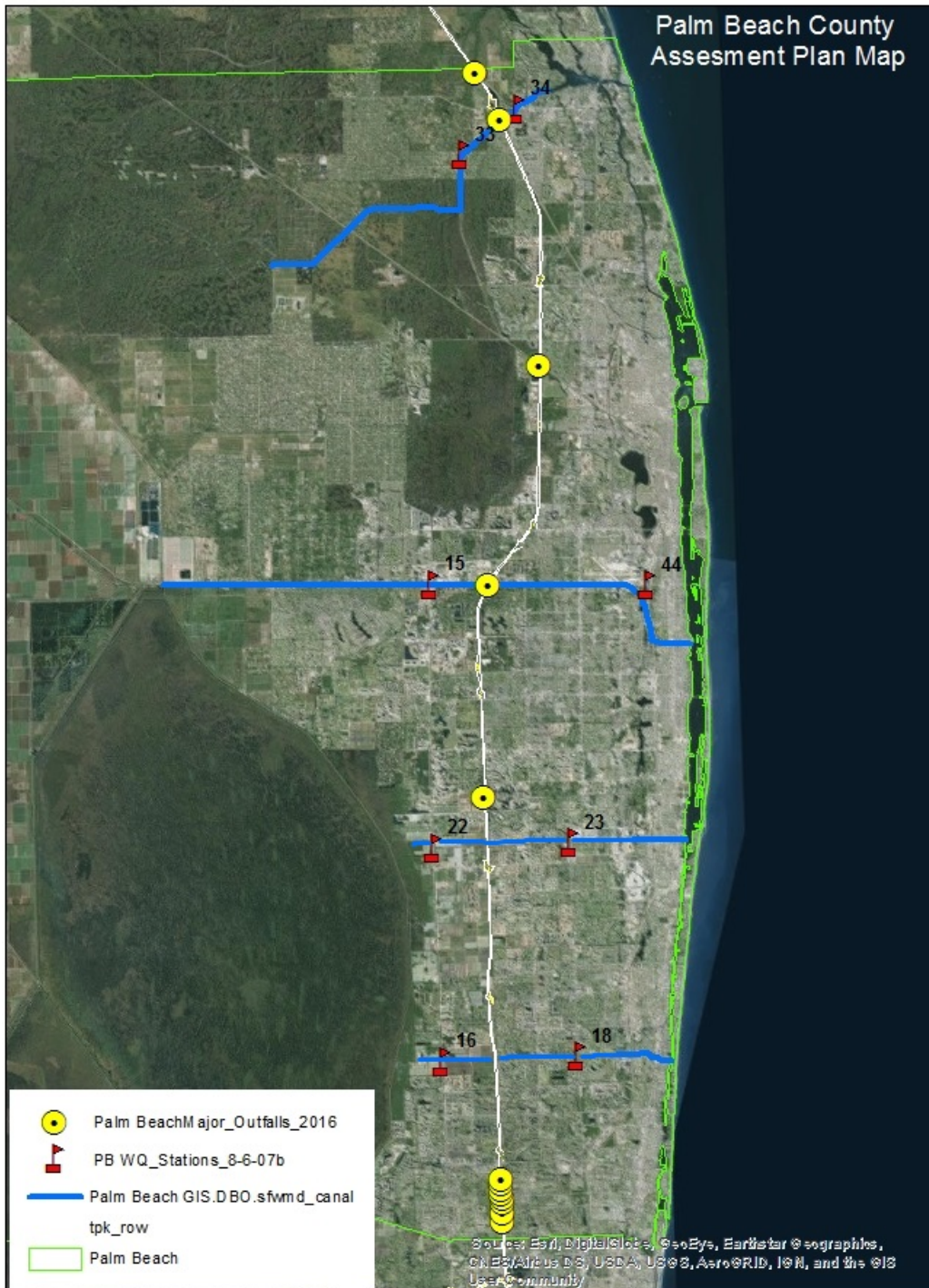


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Pollutant Loading Estimate Plan

The Palm Beach County MS4 permittee will provide each co-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”. Prior to Year 3, the (FTE) 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 (BOD5), Copper (Cu), Total Nitrogen (TN), Total Phosphorus (TP), Total Suspended Solids (TSS), Zinc (Zn).

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

The EMC values used in the Cycle 3 pollutant loading estimates were taken from the 2012 City of Lake Worth Stormwater Master Plan completed by CDM Smith, because the values were determined to be representative of all of the Palm Beach County MS4s. CDM Smith chose EMC values appropriate for each land use category, from sources including NPDES data, Harvey Harper’s studies, and NURP studies.

Event Mean Concentrations (mg/l)

Land Use	% DCIA	BODs	Cu	TN	TP	TSS	Zn
Highway Major	75	5.2	0.025	1.1	0.2	46	0.116

To determine a practical estimate of the current pollutant loading, the FTE will use the land use based pollutant loading estimates provided by the permittee 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 completed, and potentially additional reduction measures or BMPs are put in place, the estimated pollutant loading will reflect the reductions.



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Evaluation and Response Plan

Once the Assessment Program is approved by FDEP, FTE will use ambient water quality data from prior joint annual reports to compare trends and make evaluations to the effectiveness of FTE's SWMP. Water quality monitoring results will be available annually, and the most recent year's data will be compared to that of the year or years before. A summary of the water quality monitoring data, with respect to our MS4 will be developed and included in Assessment Program Annual Report.

In addition, the pollutant loading estimates developed 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.

The report shall include receiving water trending reports/graphs for various parameters, as presented in the Joint Annual Report, and a discussion will be included in FTE'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 one portion of the MS4 should be targeted for additional loading reduction efforts, or additional pollutant control measures. The first annual report on the Assessment Program will be concurrent with the Year 3 Annual Report Form (March 2020).