

August 29, 2013

Allen P. Hubbard, P.E.
Program Administrator
NPDES Stormwater Section
Florida Department of Environmental Protection
Division of Water Resource Management

**Re: Palm Beach County Municipal Separate Storm Sewer System (MS4)
NPDES Permit No. FLS00018 (Cycle 3)
Year 2 Annual Report Comments - Town of Ocean Ridge
Engenuity Group Project No. 00020.24**

Mr. Hubbard:

The following information is being submitted on behalf of the Town of Ocean Ridge in response to the August 6, 2013 comment letter from the FDEP for NPDES Permit No. FLS000018:

Street Sweeping Program for TN and TP Reduction

Part III.A.3. of the MS4 Permit requires co-permittees to use the Florida Stormwater Association (FSA) MS4 Load Reduction Tool to calculate the total nitrogen (TN) and the total phosphorus (TP) load reductions of street sweeping. A permittee may also use results from a similar study if it is approved by the Department prior to doing the load calculations.

After using the Florida Stormwater Association (FSA) MS4 Load Reduction spreadsheet to calculate the total nitrogen (TN) and the total phosphorus (TP) load reductions of street sweeping the amount obtained for the TP was 4 pounds and for the TN was 7 pounds. Attached is the revised SOP with the required FSA spreadsheet showing the results.

If you should have any questions please do not hesitate to call.

Sincerely,



Linda Camacho, E.I.
Project Engineer

Cc: Ken Schenck

Street Sweeping Program

A map of the street sweeping roads is attached. 18 miles of public roadway are in the program. The frequency of sweeping is:

Quarterly (contracted out)

Documentation of volume of street sweeping collection from the invoices is summarized at the end of each year in the table below.

An estimate of the total phosphorus and total nitrogen collected by the street sweeping is performed based on the Florida Stormwater Association's determinations of street sweeping removal rates project. For this calculation, the land use of the area swept and the amount of material collected is needed. The log below is used for recording this information.

Street Sweeping Collection Log		
Date	Amount Collected (units)	Land Use of Area Swept
10/27/2011	4 cubic yards	Residential
2/1/2012	3 cubic yards	Residential
5/1/2012	4.5 cubic yards	Residential
7/31/2012	4.5 cubic yards	Residential

1 cubic yards = 750 pound

16 cubic yards * 750 pound/cubic yard = 12,000 pounds (this amount was used to generate the TP and TN values for the Florida Stormwater Association (FSA) MS4 Load Reduction spreadsheet. Attached)

All street sweeping collection is properly disposed of in accordance with DEP's "Guidance for the Management of Street Sweepings, Catch Basin Sediments and Stormwater System Sediments."

**Florida Stormwater Association
Street Sweeping Nutrient Removal Rates**

Based on the May 31, 2011 Final Report "Quantifying Nutrient Loads Associated with Urban Particulate Matter (PM), and Biogenic/Litter Recovery Through Current MS4 Source Control and Maintenance Practices" the following values may be used to estimate nutrient removal values from street sweeping activity:

Nutrient Values for Street Sweeping (mg/kg)	
Total Phosphorus	Total Nitrogen
361	563

Nutrient mass values shown here are independent of land use

Calculated Nutrient Load Reductions from MS4 Maintenance Practices

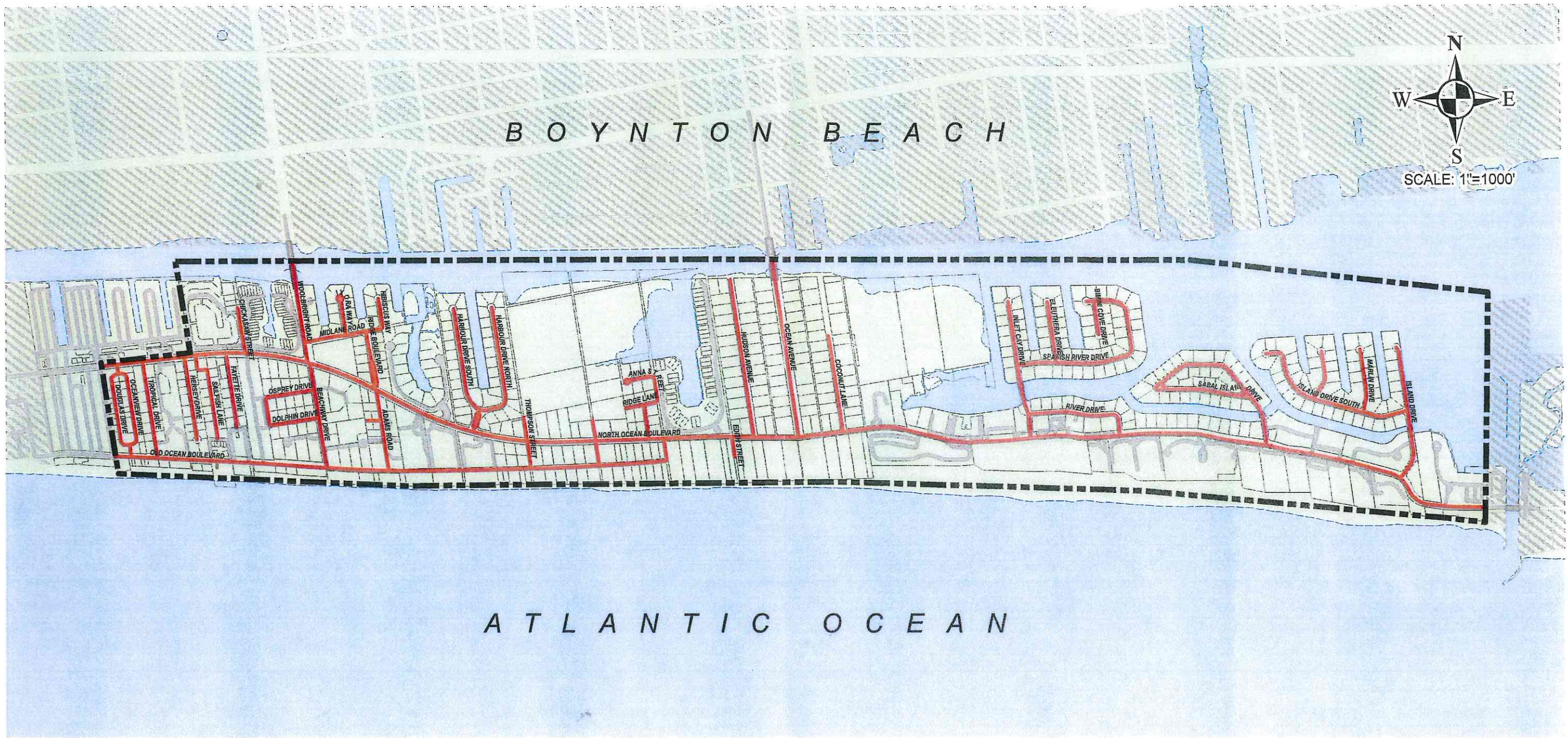
FSA 2012

TOTAL PHOSPHORUS

		Subtotal TP Removed (Kilograms)	Subtotal TP Removed (Pounds)
Street Sweepings - Dry Mass Collected (Kg)	5,443		
Amount of TP Removed (Kilograms)	2	2	4
Catch Basins - Dry Mass Collected	0		
Amount of TP Removed (Kilograms)	0	0	0
BMP - Dry Mass Collected	0		
Amount of TP Removed (Kilograms)	0	0	0
GRAND TOTAL TP REMOVED (KILOGRAMS) =		2	
GRAND TOTAL TP REMOVED (POUNDS) =			4

TOTAL NITROGEN

		Subtotal TN Removed (Kilograms)	Subtotal TN Removed (Pounds)
Street Sweepings - Dry Mass Collected (Kg)	5,443		
Amount of TN Removed (Kilograms)	3	3	7
Catch Basins - Dry Mass Collected	0		
Amount of TN Removed (Kilograms)	0	0	0
BMP - Dry Mass Collected	0		
Amount of TN Removed (Kilograms)	0	0	0
GRAND TOTAL TN REMOVED (KILOGRAMS) =		3	
GRAND TOTAL TN REMOVED (POUNDS) =			7



TOWN OF OCEAN RIDGE R.O.W. MAP