Stormwater Infrastructure Maintenance and Flood Report
September 1, 2016

By Robert H. Brotherton, P.E. – Contracted Engineering Consultant

Maintenance: September 30, 2015 through September 1, 2016
Maintenance work during this reporting period included normal mowing and tree trimming by Town staff and inspections of Town-owned stormwater facilities (MS4 System) by Brotherton Engineering, Inc. and Town Staff that have been certified as Stormwater Management Inspectors by FDEP. There were no flooding events other than minor street flooding in Gulf Blvd. which is an FDOT highway. FDOT has hired an engineering firm that will be designing the proper repair to reduce this minor street flooding. As of September 1, 2016, a preliminary design has been completed by the FDOT consultant by the name of PROTEAN Design Group.

Reports of serious flooding events
There were no reports of serious flood events in the Town of Indian Shores during this last reporting period.

Stormwater Infrastructure Repairs
There were three repairs made, by Public Services staff under the direction of the Town Engineer, to Town owned and operated retention ponds located at 191st Ave and the Nature Center pond during this reporting period. The pond on 191st Ave. had accumulated material removed and properly disposed and a new skimmer device was installed. The Nature Center pond had erosion control materials installed at the end of the concrete flume and had obstructions removed from the discharge pipe in the seawall. Picture of these repairs are shown below:

![191st Pond Before Repair](image1)

![191st Pond After Skimmer Repair and accumulated materials removed](image2)
All CDS units owned by the Town of Indian Shores were cleaned two times during this reporting period. This cleaning is performed on a twice per year cycle. The Indian Shores MS4 system is very small consisting of 17 storm infrastructure elements and 8 outfalls to the Intracoastal Waterway.

Robert H. Brotherton, P.E.
Brotherton Engineering, Inc.
September 2, 2016
P.E. #36604