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Town of Jupiter Inlet Colony Neighborhood Rehabilitation Project

The Town of Jupiter Inlet Colony, in cooperation with the Loxahatchee River District (LRD), has concurrently addressed two (2) best management practices (BMPs) in an effort to improve water quality treatment, reduce nutrient loads and achieve water quality standards as a priority. BMP 1: 'Convert Existing Septic Tank Systems to a Central Gravity Sanitary Sewer System'. This has addressed the conversion of all existing septic tank systems (240) to a central gravity sanitary sewer system operated by LRD. BMP 2: 'Improved Storm-Water Management and Drainage'. This has addressed implementing major targeted storm-water drainage improvements to the Town's sixty (60) year old overall storm-water drainage system. The Town of Jupiter Inlet Colony (JIC) is listed on the Florida Department of Environmental Protection (FDEP) official maps as one of the entities discharging into 'impaired' waters of the State. This fact was verified by FDEP in the 2009 Group 2 assessment for the St. Lucie-Loxahatchee River as impaired for nutrients. Various State and Federal programs (TMDL, BMAP and NPDES) currently recognize septic tank conversions as a storm-water BMP. The project, BMP 1 and BMP 2, is fully designed and permitted and commenced on July 25th, 2016. Construction concluded ahead of schedule in February 2018.

The BMP 1 project provided for the construction of a central gravity sanitary sewer system to serve 240 properties currently served by individual septic tank systems. The BMP 2 project made substantial improvements to the overall storm-water drainage system including roadway profile adjustments, valley gutters throughout the Town, exfiltration trenches (approximately 5,350 LF) and storm drainage structures / piping. Both BMPs were constructed concurrently. The results of performing these two BMPs was to significantly reduce nutrient discharges into the receiving waters of the Indian River Lagoon at the confluence of the Intracoastal Waterway, Jupiter Inlet and Loxahatchee River.

It is commonly accepted that the elimination of individual septic tank systems will lead to significant reductions in nutrient pollutant loads entering both groundwater and surface water bodies, particularly in regard to total Nitrogen (TN) and total Phosphorus (TP). Ultimately, the conversion of septic tanks to a central sewer system will result in a near 100% reduction in Nitrogen and Phosphorus loads from septic tank systems. This improvement is justified because ALL of the wastewater is being collected and pumped from the new Central Gravity Sanitary Sewer System within JIC to the LRD Regional Wastewater Treatment Facility. None of the sewage or septic tank effluent will contribute to local nutrient loads in the future. The project has made needed improvements to the storm-water drainage system throughout JIC. It is estimated and expected that these storm-water improvements will provide a yearly reduction of 460 pounds of TN and 100 pounds of TP. These reductions represent an estimated 68% reduction in TN and a 71% reduction in TP. Additionally, 800-1000-fold of the quantity of storm-water currently ponding on the roads will be reduced by the storm-water improvements described and will decrease the storm-water volume being discharged through existing outfalls into the adjacent impaired waterways due to the implementation of exfiltration trenches by approximately 80%.

Finally, in addition to all of the aforementioned BMP infra-structure improvements, sixty (60) year old asbestos concrete potable water lines were replaced with new state-of-the-art water lines. The total cost of all of these improvements is approximately $9.5 million dollars which has been partially offset by the $600,000 SFWMD Grant which was part of the Loxahatchee River Preservation Initiative funded by the Florida State Legislature during the 2014 session and a $750,000 Florida Department of Environmental Protection Grant awarded in 2015.

Protecting and preserving the water around us for ourselves and future generations is an important responsibility. This Neighborhood Rehabilitation Project, like our recently completed one to underground all of the Town's overhead utility lines is aimed at attaining the Town's goal of becoming the "greenest" municipality in the State of Florida.