

Appendix E Stormwater

I. Summary

The Royal Oak Golf Course and Community (RO) was constructed in the 1960s prior to the establishment of regulatory requirements for stormwater discharge that began with the 1987 amendment of the Clean Water Act. It is undetermined if this golf course and community of approximately 1000 homes on 300 acres meet the requirements for stormwater discharge as described in Chapter 40C-42, F.A.C. However, it is clear that RO properties serves an important function. The golf course provides a large amount of pervious greenspace with ponds and pipes for storage and conveyance of stormwater.

II. US Environmental Protection Agency

The USEPA was mandated by Congress through Section 4-5 of the Water Quality Act of 1987 (part of the Clean Water Act) to create a National Pollutant Discharge Elimination System (NPDES) for non-point sources like stormwater. Previously the Clean Water Act only focused on “point sources” from industrial users like paper plants or wastewater treatment plant outfalls.

The SJRWMD is responsible for stormwater management under Florida Administrative Code (F.A.C.) Chapters 40C-42. Royal Oak is considered a “wet detention stormwater system”. It is not determined if RO definitely meets or does not meet the current stormwater rules. There may be infrastructure issues but RO has the space to make desired changes.

III. St John’s River Water Management District

At the Royal Oak Community Alliance (ROCA) meeting with the St. Johns River Water Management District (SJRWMD), the stormwater benefits of the golf course were discussed. The large pervious golf course area provides stormwater absorption and infiltration. While the stormwater ponds and connecting infrastructure provide storage and conveyance. It was notable due the capacity of the lakes on the golf course, Titusville Reclaimed Water has been discharged into RO waterways.

IV. Benefits to Proper Stormwater Control

A study of the stormwater drainage patterns reveals the RO community serves as a drainage divide between the Indian River Lagoon and the St. Johns River. Stormwater runoff to the south and west of Royal Oak Drive and Saunders Place discharges across Knox McRae into the drainage canals and the downstream communities ending up in the wetlands at Windover Farms before making it to the St. Johns River. The stormwater to north and east of Royal Oak Drive and Saunders Place discharges into the Indian River in drainage canals south of St. Teresa's Catholic Church off U.S. 1. This divides the 300 acres of RO property, 75% of stormwater is drained to the St Johns River and 25% drains into the Indian River Lagoon. An important note, 100% of all the lakes on RO property drain into the St John's River. This provides the greatest capacity for stormwater discharge, storage and conveyance to the St John's River. The 25% of stormwater that drains into the Indian River includes about 75 acres, most of which is, pervious greenspace that serve to protect the Indian River Lagoon from additional pollutant discharge. This property serves important functions for the St John River and Indian River Lagoon.

V. Dependent Special District

There may be environmental benefits in retrofitting the drainage infrastructure at RO. But, SJRWMD does not normally acquire property for water quantity or water quality benefits. SJRWMD would welcome stormwater retrofit proposals to support water quantity or water quality improvements. But either the City or Titusville, Special District, or 501c3 entity would have to own the land and develop the proposal.

A project to upgrade RO areas to bring it into compliance with stormwater standards (and serve RO Community and City of Titusville needs) could be eligible for grant funding from the SJRWMD. These are usually a matching grant programs that could be pursued.