Town of Lauderdale-By-The Sea

Palm Club Sanitary Sewer Improvements Project

LAUDERDALE BY·THE·SEA

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The Town of Lauderdale-by-the-Sea is a small coastal community in Broward County, Florida bounded by the Intracostal Waterway on the west and the Atlantic Ocean on the east. This fully developed coastal Town was incorporated in 1947 and is home to a population of approximately 6,100 permanent residents. The Town provides roadway and stormwater utility maintenance services, and utilizes the neighboring City of Pompano Beach to provide water and sanitary sewer service to the Town's Northern residents and the City of Fort Lauderdale for the Central and Southern parts of the Town.

As part of the Town's Capital Improvement Program, the Town identified the Palm Club community as an area of focus to provide conversion from septic tanks to centralized sewer. The Palm Club community is a privately owned cooperative community with one-hundred (100) residential units which is located in the northern part of Town.

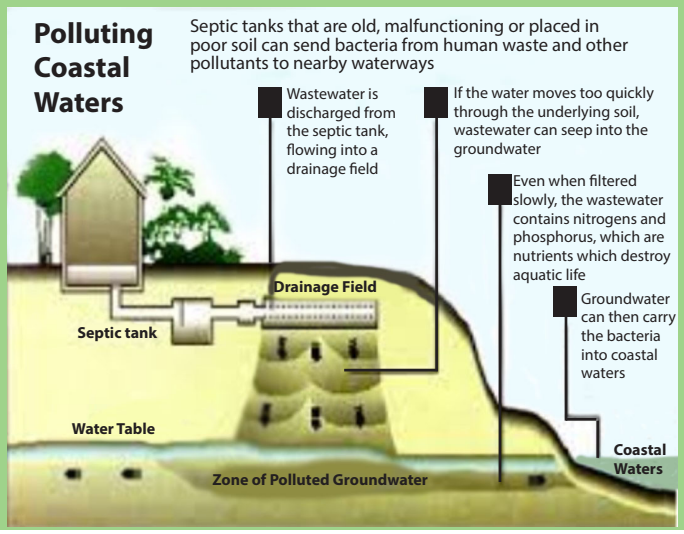
To reduce the nutrient loadings, the Town of Lauderdale-by-the-Sea identified the Palm Club neighborhood for a centralized wastewater collection and disposal system.

The Town of Lauderdale-by-the Sea desires to convert the Palm Club community from septic systems to a centralized gravity sewer and conveyance system to mitigate near term and long term environmental impacts associated with the continued use of septic systems in densely populated areas. The Palm Club was identified by the Town due to its proximity to the Intracoastal Waterway and interconnecting canal system, as well as the proximity of the community to an existing City of Pompano Beach centralized wastewater collection system. The construction of a gravity sewer system in the Palm Club community will eliminate the discharge of domestic wastewater to potential drinking water sources, as well as the introduction of the wastewater into the adjacent marine ecosystems.

Septic Tanks: An "Unseen" Source of Sewage Pollution in Florida's Waters

- Approximately one-third of households in Florida rely on septic tanks
- Soils in much of Florida are unsuitable for septic tanks (porous sands or karst limestone, low organic content, high water tables)
- Contaminants include nitrogen, phosphorus, OWCs (pharmaceuticals, hormones, etc.), bacteria, viruses
- Estimated N-load from septic systems in Florida is substantial

  Fertilizer: 1.4 x 10^{11} g-N/yr
  Septic systems: 2.4 - 4.9 x 10^{10} g-N/yr
  (Badruzzman et al. 2012)



Based on a preliminary design layout of the system it is anticipated the Palm Club Sanitary Sewer Improvements Project will include the construction of the following system components:

- One-hundred (100) sanitary sewer laterals with associated clean-outs
- Approximately 5,100 linear feet of 8-inch PVC gravity sewer mainline piping
- Approximately nineteen (19) gravity sewer manholes
- One (1) duplex (i.e. two pumps) submersible type lift station
- Approximately 1,500 linear feet of 4-inch PVC force main routed from the proposed lift station to the existing City of Pompano Beach force main
- Roadway restoration

Based on the preliminary design layout, the construction cost for the Palm Club Sewer System Improvements project is estimated to be $3.5 Million dollars.

The Town is committed to being a good environmental steward and believes that the benefits this project will have on reducing pollution discharges to the Town's marine ecosystems is critical to giving these important systems a chance at survival and/or recovery. The Town is currently investigating options to secure funding for the project through available governmental loans and/or grants to construct this very important project.