



2017 WATER QUALITY PROJECTS

Project Title: Sewer Piping Rehabilitation Phase II

Funding Request: \$400,000

Project Description: This project is for a designated sanitary sewer basin (No. 1) in the City of Margate. (See Exhibit A). This is the second phase of the Sewer Piping Rehabilitation Project. The Florida Legislature approved \$100,000 for Phase 1 (Sanitary Sewer Basin No. 12) in 2014. The rehabilitation scope will include video survey of the entire basin piping and installation of cured-in-place pipe to repair the leaks. In addition to the water quality protection and general environmental benefits, discussed in more detail below, the cured-in-place lining of sewer pipes is a cost effective alternative to replacement. This process eliminates roadway and private property restoration; does not inconvenience residents; and eliminates environmental impacts typical for a construction site such as Noise, Dust, Traffic Congestion, etc. In fact, this process will preserve the pipe for an additional 40-50 years. The City has committed to spending \$500,000 of budgeted funds for Fiscal Year 2017 for sewer piping rehabilitation, as well as approximately \$50,000 to \$100,000 in in-kind expenses such as engineering and planning. This funding request of \$400,000 will allow for rehabilitation of an additional length of approximately 13,000 linear feet of sanitary sewer piping. The City estimates rehabilitation costs for this basin piping to be between \$950,000 and \$1 million.

Additional Project Information: The sanitary sewer basin no. 1 abuts C-14 canal to the north as shown on Exhibit A. The C-14 canal has high levels of fecal coliform concentrations in excess of the established Total Maximum Daily Loads (TMDL). The C-14 canal will require a 22 percent reduction of sources to mitigate the concentrations that exceed the established criteria. The sanitary sewer systems with leaking underground pipes are some of the primary contributing sources to fecal coliform contamination. Elimination of non-point sewage leaks, source for fecal coliforms, will have a direct impact and contribute significantly towards the region's targeted 22 percent reduction in fecal coliform sources. The C-14 canal is a regional waterway that runs through several cities from the Florida Everglades to the Atlantic Ocean.



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Project Title: Lemon Tree Lake Water Quality Improvement Project

Funding Request: \$100,000

Project Description: The stormwater runoff from the industrial area along Northwest 8th Street drains directly into Lemon Tree Lake. See Exhibit B for a sketch of the drainage basin and the storm water drainage system serving the area. The runoff from the entire drainage basin collects in a single catch basin at the east end of the street. The catch basin subsequently discharges runoff directly to the lake. Discharge of surface runoff to water bodies without any pretreatment provides a direct path for pollutants to enter canals and lakes resulting in environmental degradation of the water bodies with significant impacts to quality of life and health and safety of the citizens.

Lemon Tree Lake is one of the largest bodies of water within the City of Margate. The City's Community Redevelopment Agency (CRA) is in the process of redeveloping the vacant parcels located in close proximity to Lemon Tree Lake and may expand the size of the lake for additional storage of runoff from the new developments as well as for additional passive recreational opportunities. Prior to its expansion, the City is proposing to evaluate the water quality of the runoff from the industrial area discharging to the lake; confirm the presence or absence of any pollutants in the lake sediment; identify and install engineering controls, if required, to eliminate future discharges; and develop/implement a mitigation plan to remove the polluted sediment from the lake bed, if required. Lemon Tree Lake connects to the C-14 canal. The C-14 canal is a regional waterway that runs through several cities from the Florida Everglades to the Atlantic Ocean.

The preliminary cost estimate for the project is approximately \$550,000. The funding request of \$100,000 will allow for preliminary field investigations; installation of required engineering controls; and development of a mitigation plan. The remaining \$450,000 will be a local match and will be used to implement the mitigation plan with scope ranging from removal of polluted sediment to re-establishing and stabilizing canal banks in the study area.



