



SANIBEL ISLAND WATER QUALITY IMPROVEMENT PROGRAM

SHORT- AND LONG-TERM NUTRIENT REDUCTION GOALS

Short Term

1. Complete Sanibel Comprehensive Nutrient Management Plan. Document will provide nutrient loading hotspots and guide project implementation. Complete Phase III in FY15 and develop list of projects aimed at nutrient loading hotspots.
2. Implement flow monitoring within the Sanibel River at the Tarpon Bay and Beach Road weirs to determine the volume of water and nutrient loads leaving the Sanibel River on an annual basis.
3. Design and engineer one-way flap gate for the Dunes community weir to prevent bay water from entering community lakes during extreme high tides. This will prevent lakes from filling up prematurely and discharging nutrient-rich water over the weir into bay waters.
4. Continue to educate homeowners and contractors on the impacts of improper fertilizer use. Train contractors on Best Management Practices. Focus homeowner education on source control around community lakes and stormwater drains. Develop homeowner guide to proper use of reclaimed water. Develop web-based BMP education for homeowners who live on community lakes.
5. Continue to implement the City's Golf Course Fertilizer and Lake Management Guidelines and Report Card Program. Continue to meet with golf course staff annually to evaluate practices and provide report cards.
6. Continue to monitor the island's surface water quality in the Sanibel River (6 stations); Blind Pass, Sanibel Bayous and Clam Bayou (6 stations). All data uploaded to FDEP and USEPA the STORET database.
7. Complete baseline nutrient sampling and feasibility assessment of transitioning the Sanibel Island Golf Course to an on-demand re-use water irrigation system.

Long Term

1. Implement on-demand water irrigation at the Sanibel Island Golf Course to eliminate the existing re-use water holding pond on the golf course suspected of leaching into the Sanibel River.
2. Move forward with final phase of the City's municipal sewer system to eliminate all septic tanks on Sanibel.
3. Implement denitrification at the Donax wastewater treatment plant to reduce nitrogen concentration in the City's re-use water used for irrigation on golf courses and condominiums along West Gulf Dr.
4. Look at the feasibility of sediment dredging or removal of *Chara* spp. In the Sanibel River to remove nutrients in the sediments or in plant biomass.
5. Evaluate the feasibility of filter marshes adjacent to the Sanibel River to remove nutrients from the Sanibel River (location to be driven by results of the Nutrient Management Plan).