

October 3, 2017

The Honorable Matt Caldwell
Florida House of Representatives, District 79
15191 Homestead Road, Building A
Lehigh Acres, Florida 33971

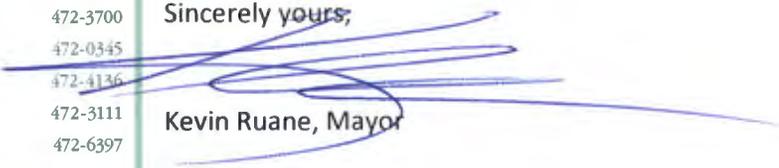
Re: Lee County Legislative Delegation Meeting

Dear Representative Caldwell:

Thank you for providing the timeline for submission of bills and supporting materials for the Lee County Legislative Delegation meeting to be held at Florida Southwestern State College on Wednesday, October 18, 2017. Unfortunately, I will be unable to attend the meeting; however, Vice Mayor Mick Denham will be attending in my absence. I would like to request time on the agenda for Vice Mayor Denham to address the Delegation and present the City of Sanibel's 2018 legislative priorities. Included with this letter are copies of the City of Sanibel's legislative priorities, which focus on regional and local water projects.

Thanks for providing an opportunity for the City of Sanibel to address the Lee County Delegation.

Sincerely yours,


Kevin Ruane, Mayor

Cc: Sanibel City Council
Judith A. Zimomra, City Manager
Kenneth B. Cuyler, City Attorney
Charlotte Codie, Legislative Assistant - District 79



City of Sanibel

800 Dunlop Road
Sanibel, Florida 33957-4096

www.mysanibel.com

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CITY OF SANIBEL, FLORIDA

2018 LEGISLATIVE PRIORITIES

Regional Water Quality/Quantity Priorities

- **C-43 West Basin Reservoir Project.** The C-43 Reservoir is designed to store up to 170,000 acre-feet of water within the Caloosahatchee watershed. The reservoir is expected to supply enough water to meet the existing Minimum Flow and Level for the Caloosahatchee River 80% of the time. The estimated cost of the project is \$500 million. Under the Comprehensive Everglades Restoration Plan (CERP), the federal government will match state monies expended on CERP projects. Therefore, any funding that the state allocates toward construction of the C-43 reservoir will be matched by the federal government to implement other Everglades restoration projects.

As currently designed, the Reservoir does not include a water quality treatment component to remove nutrients from the water prior to discharging it back into the River. Because the Caloosahatchee is currently “impaired” for nutrients, it is imperative that a water quality treatment component be incorporated into the project. The South Florida Water Management District should begin planning and design of a water quality treatment component immediately on land adjacent to the project site. This will ensure water being discharged to the Caloosahatchee does not contribute to existing water quality impairments. **Legislative Request: Dedicate a minimum of \$100 million in funding for C-43 Reservoir Project for FY19 and begin planning and design for a water quality treatment component for the reservoir.**

- **Complete Construction of the Lake Hicpochee Restoration Project.** This project will provide critical storage and treatment needed within the eastern Caloosahatchee watershed. During the 2016 Legislative Session, the Florida Legislature allocated \$16.9 million to purchase an additional 2,454 acres of land on the north side of Lake Hicpochee. This land will be used as flow equalization basin (FEB) to store and treat water from the C-19 basin and help restore freshwater flows to Lake Hicpochee and the eastern Caloosahatchee sub-basin. Phase I project construction began in 2017. **Legislative Request: Dedicate \$50 million towards Phase II construction.**
- **Lehigh Acres Municipal Services Improvement District GS-10 Caloosahatchee Cross Link Project.** The GS-10 Caloosahatchee Cross Link project is a regional,

multi-agency initiative to provide water storage and treatment within the Caloosahatchee watershed. It involves the acquisition and development of a former mine area, known as Section 10, into a shallow reservoir while creating a flow way to the Greenbriar Swamp that would be used for water treatment while restoring hydroperiods within the natural system. The project establishes connections between Lee County-owned lands and the Lehigh Acres-Municipal Services Improvement District (LA-MSID) drainage system, which has multiple outfalls to the Caloosahatchee River. The project is a stand-alone regional initiative that may also provide water quality treatment for the C-43 Reservoir by taking discharge water released from the Reservoir and moving it through the LA-MSID treatment system before final outfall to the Caloosahatchee River.

Benefits of the project include increased storage of 600-2,000 acre-feet/year (dependent on final project design) and an estimated nutrient reduction of 115 lb. TP/yr. and 3,140 lb. TN/yr. Additionally, the project would improve flood control in a rapidly developing urban area, restore a degraded natural system and enhance wildlife habitat. The project will assist LA-MSID and Lee County in meeting their assigned TMDL/BMAP water quality requirements. **Legislative Request: The estimated cost for the project design and permitting is \$750,000.**



Impacts of High-volume Freshwater Releases from the Caloosahatchee River on Sanibel Island

4. Re: Water Quality
Jun 22, 2016, 7:24 AM

 hiteDiamondScot
Barnmouth County, NJ

Destination Expert
for Southampton Parish

Level 6 Contributor
2,288 posts
18 reviews

my heart is sad for Sanibel and for those that are coming to spend their precious vacation time and hard earned dollars. It was like that in February while we were there...the first lake release happened then during our stay...we experienced the same as you...however, the water was alot cooler and not many were wanting to get into the water. I have to say, we had only one day where the water was not appealing, every day got better with the exception of the bayside. Clearly, something must be done to fix this issue and soon...the lake is draining record amounts of water, too much for the natural estuaries and marine life to keep in balance. I am not sure if most people understand that this lake draining happens every year at this time (before and during hurricane season and rainy season)

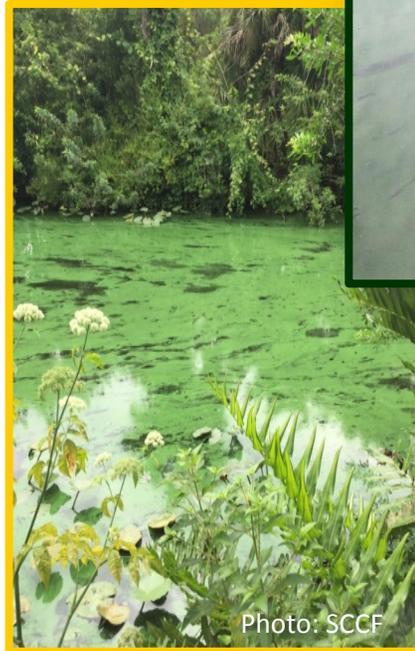
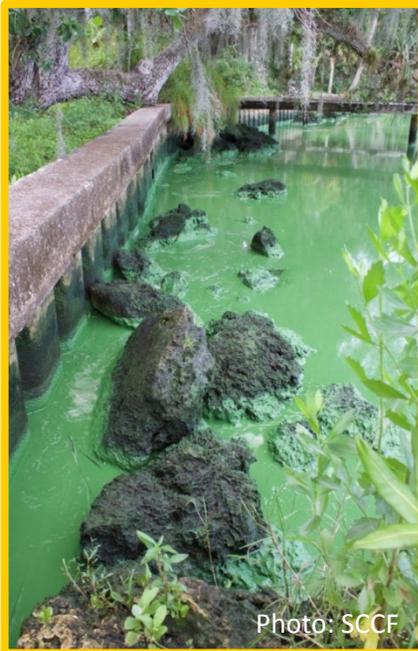
3. Re: Water Quality
Jun 21, 2016, 1:41 PM

My heart sank as we drove across causeway Sunday. Water clarity is awful. I would steer clear if I had plans for this summer in Sanibel.

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Reply

**Regional Impacts of Excess
Nutrients from Freshwater Releases
from Lake Okeechobee and
Stormwater Runoff from the
Caloosahatchee Watershed**



Nutrient impacts related to Lake Okeechobee and Caloosahatchee watershed discharges. Photos of blue-green algae bloom in the Caloosahatchee taken on May 26, 2016, Ortona, FL.



CITY OF SANIBEL, FLORIDA

2018 LEGISLATIVE PRIORITIES

Local Water Quality Priorities

The City of Sanibel has implemented a number of measures since incorporating in 1974 to improve water quality throughout the island. These measures include the acquisition of environmentally sensitive lands, mangrove protection, native plant protection and sod limitations, beach and dune protection, conversion from septic to central sewer, responsible development through reduction of impervious surfaces and onsite stormwater management, water quality monitoring, adoption of a residential/commercial fertilizer ordinance, adoption of nutrient and lake management recommendations for golf courses, development of a Comprehensive Nutrient Management Plan, and implementation of the Sanibel Communities for Clean Water program www.SanibelCleanWater.org. The total investment by the City of Sanibel represents more than \$105 million. While the City has taken a very proactive role in improving water quality, the Sanibel River and many residential and golf course lakes on Sanibel remain “impaired” for nutrients such as nitrogen and phosphorus. The Sanibel Comprehensive Nutrient Management Plan completed in 2017 identified a number of nutrient loading priorities for Sanibel. One of the largest sources of nutrients (nitrogen and phosphorus) in surface and groundwater on Sanibel originates from the City’s reuse water system (Thompson et al. 2017). In an effort to significantly reduce nutrient concentrations in the City’s reuse water, we are proposing a project to upgrade the City’s Donax Wastewater Reclamation Facility (WRF) to advanced wastewater treatment. Upgrades to the plant would reduce nutrient concentrations in reuse water provided to golf courses, multi-family, and residential properties by more than 50%. This project was designed and engineered using \$825,000 in funding provided by the Legislature for FY17 (DEP Agreement No. LP36030).

- **City of Sanibel Donax WRF Process Improvements.** The City of Sanibel’s Donax WRF has a permitted design capacity of 2.375 million gallons per day (MGD) on a maximum monthly average daily flow (MMADF) basis. The facility is the City’s main wastewater treatment plant and produces effluent that meets its regulatory requirement of Florida Department of Environmental Protection (FDEP) criteria for public access reuse; it does not have surface water discharge. The current permitted criteria levels are 12.0 mg/L Nitrogen, 5.0 mg/L TSS, 30 mg/L BOD, and no limit on Phosphorus. The facility consists of three biological treatment process units. Treatment Process Unit 1 was constructed in 1995, while Treatment Process Units 2 and 3 were constructed in 2003 with the expansion of centralized sewer on the

island. Treatment Process Unit 1 is a conventional activated sludge plant and Treatment Process Units 2 and 3 are Modified Ludzack-Ettinger (MLE) systems.

The City is in the process of designing plant upgrades which convert treatment Process Unit 1 from conventional activated sludge treatment to a flow equalization tank, upgrade Treatment Process Units 2 and 3 from a MLE process to a four-stage Bardenpho process, adding new membrane biological reactors consisting of bioreactor and microfiltration. The treatment capacity of the plant will remain sufficient for the island and the process improvements are anticipated to reduce Total Nitrogen and Total Phosphorus to <3.0 mg/L and <1.0 mg/L respectively, which meets advanced waste treatment standards.

The City of Sanibel received Legislative funding in 2016, administered by the Department of Environmental Protection, Division of Water Restoration Assistance (Item 1600A of the FY16-17 General Appropriations Act) and subsequently entered into DEP Agreement No. LP36030, for a grant with a cost reimbursement basis up to a maximum of \$825,000. The City is proceeding with design of the Donax WRF Process Improvements.

The total construction cost of the proposed process improvements is estimated as \$11,915,000. **Legislative Request: \$2,000,000 (Local match \$3,618,600 for construction).**

Local Impacts of Excessive Nutrients in Stormwater Runoff on Sanibel's Water Quality



Photo: City of Sanibel



Photos showing a blue-green algae bloom and fish kill in Sanibel's community lakes, 2017. Data collected by the City of Sanibel and the Sanibel Captiva Conservation Foundation as part of the Sanibel Comprehensive Nutrient Management Plan identified municipal reuse water as a major source of nitrogen and phosphorus loading to Sanibel's surface and groundwater (Thompson and Milbrandt, 2016).