From: John Holic <JHolic@Venicegov.com>
Sent: Wednesday, November 7, 2018 2:57 PM
To: Heather Taylor <HTaylor@Venicegov.com>
Subject: Fw: Vice Mayor Denham Says: "Improving Our State's Water Quality is a Team Effort"

Heather,
Please place on the November 27, 2018 agenda under council discussion and please make me a hard copy.
Thanks,
John

John Holic
Mayor, City of Venice
401 W. Venice Ave.
Venice, FL 34285
Office: 941-882-7402
Cell: 941-303-3357

From: Scotty L. Kelly <Scotty.Kelly@mysanibel.com>
Sent: Wednesday, November 7, 2018 12:41 PM
To: Scotty L. Kelly
Cc: Pamela Smith; Judie A. Zimomra
Subject: Vice Mayor Denham Says: "Improving Our State's Water Quality is a Team Effort"

Dear Mayor,

Please find attached a letter from Sanibel Vice Mayor Mick Denham regarding the above.

Thank you,

"Scotty Lynn" Kelly
Scotty Lynn Kelly, CMC, CGSP
Deputy City Clerk
City of Sanibel
239-472-3700 Ext. 384
Scotty.Kelly@MySanibel.com
www.mysanibel.com

11/07/18 12:41

SANIBEL for CLEAN WATER

PLEASE NOTE: Florida has a very broad public records law. Most written communications to or from the City of Sanibel regarding City business are public records available to the public and media upon request. Your e-mail communications, including your email address, may be subject to public disclosure.

City of Sanibel

800 Dunlop Road
Sanibel, Florida 33957-4096

www.mysanibel.com

AREA CODE – 239

CITY COUNCIL	472-4135
ADMINISTRATIVE	472-3700
BUILDING	472-4555
EMERGENCY MANAGEMENT	472-3111
FINANCE	472-9615
LEGAL	472-4359
NATURAL RESOURCES	472-3700
RECREATION	472 0345
PLANNING	472-4136
POLICE	472-3111
PUBLIC WORKS	472-6397

November 6, 2018

Improving Our State's Water Quality is a Team Effort

Dear Mayor,

In recent years, it has become evident to all Floridians that poor water quality is a serious threat to our health, economy, environment, and way of life. It is not just the water that comes from regional watersheds that effects each of our local communities, but what we do in our own backyards can negatively impact water quality. As stewards of our communities we have a personal responsibility to protect our local waters and minimize our individual impacts. Through the implementation of Best Management Practices (BMPs) in our communities, we can all do our part to help protect water quality both locally and regionally. Improved water quality will undoubtedly result in a healthier environment for our families and resident wildlife, enhance property values, and safeguard our economy.

We think it would be helpful to share and exchange information between Florida Cities regarding current best management practices of each of our communities. Attached to this email, you will find information regarding water quality initiatives implemented on Sanibel that we believe have resulted in water quality improvements. For more information on these initiatives please click on the hyperlinks included in the document.

We are looking forward to learning more about the best practices in your community and are happy to share with you any information and resources we have regarding best management practices that have been implemented on Sanibel. Working together, we have the collective power to improve water quality state-wide!

Sincerely,

Mick Denham
Vice Mayor

City of Sanibel
Principal Water Quality Improvement Projects

Why implement water quality improvement projects?

Sanibel Island is a world renowned tourism destination frequently ranked among the top beach tourism destinations in the world. Our pristine beaches and natural environment provide a quality of life for our citizens that is second to none. Our unique plant species, plentiful wildlife, and shell-covered beaches attract visitors from all over the world to enjoy our good nature. Stormwater runoff from urban landscapes and golf courses is a major source of nutrients contributing to algae blooms and water quality impairments in Florida. Poor water quality not only impacts wildlife habitat and the quality of life for island residents, but it can directly impact our local economy by reducing property values and the overall experience of visitors to our island. Protecting Sanibel's water quality is of paramount concern to the City of Sanibel.

How do we identify what nutrient sources are contributing to poor water quality?

In 2013, the City of Sanibel contracted with the Sanibel-Captiva Conservation Foundation (SCCF) Marine Laboratory to develop a Comprehensive Nutrient Management Plan (CNMP) aimed at reducing fertilizer laden stormwater runoff and removing nutrients from the Sanibel Slough and other Island waterbodies. This multi-phased approach identified nutrient loading hot-spots on Sanibel, and a list of projects and policy recommendations was developed to address the most problematic areas.

Phase 1
- Summary and Evaluation of the Surface Water Quality of Sanibel to Guide Development of a Comprehensive Nutrient Management Plan

Phase 2
- Development of Stormwater Runoff Coefficients, Nutrient Concentrations and Loading Estimates for Sanibel Island, Florida

Phase 3
- Nutrient Loading from Sanibel's Surficial Aquifer
- Sanibel Community Lakes Baseline Water Quality Report

Phase 4
- Integration and Analysis of Sanibel Waterbody Nutrient Data

In addition to providing direction for future projects, the CNMP process and analysis of existing data has provided support for and validated a number of initiatives previously undertaken by the City. One particularly noteworthy finding was that nitrogen (inorganic) and phosphorus levels in the Sanibel Slough decreased after Sanibel's fertilizer ordinance was implemented in 2007. Land-use analyses demonstrated that Sanibel's three golf courses account for a small-percentage of Sanibel's land mass, but a disproportionately large percentage of the nutrient load, providing support for the Golf Course BMP and Report Card Program initiated in 2008 (see below).

What programs/initiatives have resulted in the biggest benefits?

Septic System Elimination and Sewer Expansion Program

Centralization of Sanibel Island sewer services began in 1974 by the private sector. After several transitions, the City acquired the consolidated wastewater system in 1991. With acquisition, the City completed several cycles of master planning for the future operation and expansion of the system. Since the acquisition, the City has been proceeding with the expansion of wastewater collection, transmission, treatment, and disposal as planned and as impacted by conditions. Sanibel Sewer Expansion Program's main goal has primarily been to protect the island's sensitive environment. To date, the program has expanded a centralized sewer system to more than 99% of existing ERC's (Equivalent Residential Connection).

Residential/Commercial Fertilizer Ordinance

The City of Sanibel adopted a fertilizer ordinance in March 2007, restricting the timing, content and quantity of fertilizers containing nitrogen and phosphorus applied on residential and commercial properties. Professional fertilizer applicators must be licensed with City and obtain a fertilizer applicator competency card. Code Enforcement and Natural Resources staff regularly conduct inspections/site visits to ensure compliance with the fertilizer ordinance requirements.

- Resolution 07-003 & Resolution 07-012: Sanibel's Fertilizer Ordinance
- Fertilizer Ordinance Fact Sheet
- Fertilize Smart – Don't Feed the Monster!

Golf Course Fertilizer and Lake Management Recommendations Report Card Program

Managing stormwater runoff from golf courses is critical to ensuring that fertilizer and other chemicals used to maintain turfgrass do not inadvertently impact sensitive areas such as lakes, wetlands, and coastal waters. In October 2008, in an effort to improve the quality of water discharged from Sanibel's golf courses, City Council adopted a list of Nutrient Management Recommendations that were based on the Florida Department of Environmental Protection's *Best Management Practices (BMPs) for the Enhancement of Environmental Quality on Florida Golf Courses* (2008). These recommendations provide specific guidance for golf course managers on how to reduce fertilizer use and improve water quality within their respective golf course lakes. Since their adoption, City staff has worked closely with each golf course to provide technical assistance to help implement these recommendations.

2017 Golf Course Report Cards

- Sanibel Island Golf Club
- The Dunes
- The Sanctuary

Jordan Marsh Water Quality Treatment Park

The construction of Jordan Marsh Water Quality Treatment Park is currently underway, and is projected to be completed by December 2018. The goal of this project is to create a water quality treatment park/filter marsh to treat water from the impaired Sanibel River to help meet

Florida water quality standards. Nutrient reduction modeling projects that total nitrogen and total phosphorus concentrations in the water entering the treatment park could be reduced by as much as 46% and 81%, respectively. When completed, the facility will educate park visitors on the various Best Management Practices (BMPs) used to improve water quality.

- Jordan Marsh Water Quality Treatment Park Overview
- Jordan Marsh Water Quality Loading Reduction Report

Sanibel Communities for Clean Water Program

This program is used to educate homeowners on Best Management Practices (BMPs) to reduce nutrient loading to community lakes, canals, wetlands, adjacent coast waters, and the impaired Sanibel Slough. This includes a traditional and web-based media campaign to educate island residents, through the Homeowner's Association where applicable, on BMPs related to reducing stormwater runoff, excessive fertilization, appropriate use of municipal reuse water, and lake management practices that will help remove nutrients from the community lakes. The program allows residents to examine their role in protecting water quality, and how their actions can improve the health of Sanibel's waterbodies.

- Sanibel Communities for Clean Water
- Sanibel Community Lakes Best Management Practice (BMP) Program

Native Plant/Habitat Protection

Since the City's incorporation in 1974, Sanibel has been committed to the preservation of native plants and wildlife habitat. Native plants are adapted to local environmental conditions, provide a food source and habitat for wildlife, and need no fertilizer or supplemental irrigation. Vegetation canopy and cover directly reduce stormwater runoff. The City's native plant protections take a variety of forms, including vegetation ordinances and permit requirements, specific protections for activity in the beach dune and mangrove habitats, a volunteer advisory Vegetation Committee, a landscaper licensing program, invasive plant management programs, and others. Land acquisition efforts by the City and its conservation partners (SCCF and USFWS "Ding" Darling National Wildlife Refuge) have also protected native plants and wildlife habitat (~67% of Sanibel is conservation land). In turn, these lands are no longer able to be developed, thereby limiting impervious coverage and associated runoff.

- Native Vegetation Information
- City Hall Native Plant Guided Tours
- The Florida Yards & Neighborhoods Handbook

What additional water quality improvement projects are on the horizon?

Donax Wastewater Reclamation Upgrades and Denitrification Modifications

Upgrades to the plant would convert the plant to advanced wastewater treatment standards and reduce nutrient (nitrogen and phosphorous) concentrations in reuse irrigation water provided to island golf, condominiums and some residential properties. This project would effectively reduce nutrient loading to the impaired Sanibel Slough and coastal waters.