



# Agenda Report

2725 Judge Fran Jamieson  
Way  
Viera, FL 32940

## New Business - Community Services Group

J3

9/17/2019

### Subject:

Tourism + Lagoon Grant Projects

### Fiscal Impact:

FY 2019-2020: \$613,902.65 is budgeted in the Beach Improvement Fund 1442/293100

### Dept/Office:

Tourism Development

### Requested Action:

It is requested the Board of County Commissioners approve the recommended Tourism + Lagoon Grant projects as well as make the necessary legislative findings. It is also requested the BOCC grant the Chair authority to sign all the negotiated Tourism + Lagoon grant agreements over \$100,000. For the grants to County departments, request the BOCC authorize the County Manager, or his designee, to sign any necessary budget change requests for Tourism to transfer the funds to the applicable County department to be used for the specified project.

### Summary Explanation and Background:

The Beach Improvement Committee at their August 16, 2019 meeting and the Tourist Development Council at their August 28, 2019 meeting recommended the Board approve the recommended Tourism + Lagoon Grant Projects as well as make the following legislative findings: (1) the Indian River Lagoon is an estuary with multiple public access points for tourism purposes and a long history of use by tourists, and (2) each project specifically improves, maintains, re nourishes, restores, protects or assists with erosion control in either the Indian River, the Banana River, or the Mosquito Lagoon (all part of the Indian River Lagoon); and (3) each project is an authorized purpose for the expenditure of TDT revenue under section 125.0104(5)(a)5, Florida Statutes and section 102119(4)(a) of the Brevard County Code of Ordinances. Additionally, Tourism requests the BOCC grant the Tourism Director the authority to negotiate the particulars for all grants, and authority to sign all negotiated Tourism + Lagoon grant agreements under \$100,000, as well as any other necessary documents, on behalf of the County to affect the BOCC's intent for these grants, in coordination with the County Attorney's Office. Tourism requests the BOCC grant the Chair authority to sign all the negotiated Tourism + Lagoon grant agreements over \$100,000. For the grants to County departments, request the BOCC authorize the County Manager, or his designee, to sign any necessary budget change requests for Tourism to transfer the funds to the applicable County department to be used for the specified project.

### Clerk to the Board Instructions:

None

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Tammy Rowe, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

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September 18, 2019

**M E M O R A N D U M**

**TO:** Peter Cranis, Tourism Development Office Director

**RE:** Item J.3., Approval of Recommended Tourism and Lagoon Grant Projects, and Make Necessary Legislative Findings

The Board of County Commissioners, in regular session on September 17, 2019, approved the recommended Tourism and Lagoon Grant Projects, as well as make the necessary legislative findings; authorized the Chair to sign all negotiated Tourism and Lagoon Grant agreements over \$100,000; and authorized the County Manager or his designee to sign for grants to County Departments, and to sign any necessary budget change requests for Tourism to transfer the funds to the applicable County Department to be used for the specified project.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS  
SCOTT ELLIS, CLERK

*Tammy Rowe*

Tammy Rowe, Deputy Clerk

**cc:** Natural Resources Management Director  
County Manager  
Finance  
Budget

## **Tourism + Lagoon Grant Project Recommendations**

### **Project #1- FY 2019/2020**

Reef Ball Foundation, Feasibility Study of RT 192/Fifth Avenue, Indialantic, \$15,000.

**Description of Project.** The project will focus on data collection, engineering and marine benthic investigation along the east side of the Rt. 192 causeway/ Fifth Avenue in Indialantic to determine the feasibility of deploying multi-dimensional reef balls, filled with oyster shells, in this area to see if it will be an effective means of improving water quality, reestablishing habitat and attenuating storm wave energy.

The primary purpose of this feasibility study is to improve, maintain, re-nourish and restore the Indian River Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

### **Project #3- FY 2019/2020**

University of Florida Whitney Laboratory for Marine Biosciences, Restoration of Clam Populations in the Indian River Lagoon for water quality improvement, \$67,752.

**Description of Project.** Hard clams have historically been significant contributors to healthy water quality in the Indian River Lagoon (IRL) via filter-feeding that both reduces turbidity from algae and detritus and removes organic nutrients from the water column and deposits them in sediments. Overfishing and environmental degradation have led to the collapse of native clam populations in the IRL. We propose to leverage recent environmental stressors (algal blooms, hypoxia) that have naturally selected for the hardiest, most stress resistant filter-feeding bivalves in the IRL, by collecting surviving individuals of historically abundant species (e.g. hard clam, *Mercenaria mercenaria/campechiensis*, sunray venus clam, *Macrocalista nimbosa* and possible other species) in these environmentally stressed areas for use in ecosystem restoration.

The primary purpose of this clam restoration project is to improve, maintain, re-nourish and restore the water quality and habitat in the Indian River and Banana River Lagoons, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

### **Project #4- FY 2019/2020**

Brevard County Natural Resources, Titusville Causeway Shoreline Stabilization Pre-Construction Phase 2A, \$42,700.

**Description of Project.** For decades the eastern shoreline along the A. Max Brewer Memorial Parkway Bridge (also known as the Titusville Causeway) has been subjected to significant erosion. This erosion problem has resulted in several negative impacts to the Indian River Lagoon (IRL) including recreational use of his public access to the lagoon community. Both the north

and south sides of the eastern Titusville Causeway have experienced this erosion, and the current strategy for protection of this important shoreline is not sustainable nor effective. The County and other agencies in efforts to protect the shoreline along the County Causeways, have commonly used concrete rubble along the shoreline. This strategy has not reduced sand erosion and has ultimately resulted in an unsafe and unpleasant scenario for recreational use. Most recently, Hurricane Irma caused substantially weakened the shoreline and caused tremendous amounts of the sandy beach area to be damaged.

This project will develop a complete set of construction plans to develop a plan for sustainable restoration through the implementation of a living shoreline consisting of Wave Attenuation Devices (WAD's) coupled with seagrass restoration to attenuate the erosion along the southeastern stretch of the Causeway.

The primary purpose of this shoreline stabilization project is to prevent erosion from the shoreline of the Indian River Lagoon, and restore essential seagrass and eventually fish habitat, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

#### **Project #5- FY 2019/2020**

Florida Institute of Technology, Effects of Marine Catfish on Fisheries in the Indian River Lagoon, \$41,503.

**Description of Project.** Florida has long had the reputation as the "Fishing Capital of the World." According to the Florida Fish and Wildlife Conservation Commission, Florida had 2.4 million saltwater anglers in 2011, with nearly 1.8 million resident and non-resident fishing licenses sold in 2016/17, contributing \$8 billion to the state's economy each year and supporting nearly 115,000 jobs. Although specific Indian River Lagoon data is limited, an analysis of the economic value of recreational fishing in the 15<sup>th</sup> Congressional District determined that nearly 1 million fishing trips within the district were conducted by Florida residents each year, and nearly 375,000 fishing trips were conducted by non-residents, with very significant economic benefits to the district associated with both groups of anglers.

The health of the Indian River Lagoon and its ability to support a vibrant recreational fishery is critical to Brevard County's economy, both in terms of attracting tourists and in maintaining a high quality of life for county residents and prospective residents. This Project focuses on analyzing the role, impacts and stress placed on recreational fish populations by an overabundance of marine catfish. Anecdotal evidence suggests catfish populations are rising, creating negative impacts on juvenile recreational fish, and negative impacts on horseshoe crab spawning sites. For example, in Spring 2019, monitors of horseshoe crab spawning sites near Titusville videotaped a mass of catfish consuming the horseshoe crabs eggs as the crabs were

spawning. This project will collect and summarize data on resident and non-resident fishing activities within Brevard County; evaluate the abundance and habitat preference data on catfish collected over the last 20 years; determine the feeding habits of catfish in the northern Indian River Lagoon and potentially in the lower Mosquito Lagoon, as well as in and around horseshoe crab spawning sites; determine the potential impact of catfish on sportfish populations in the Indian River Lagoon; and develop possible mechanisms to minimize or mitigate catfish predation on juvenile sportfish through targeted restoration programs, recreational fishing and commercial fishing efforts.

The primary purpose of this catfish restoration project is to improve the health of the Indian River Lagoon by establish a baseline for improving recreational fish and horseshoe crab habitat in the Indian River and Banana River Lagoons, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #6- FY 2019/2020**

Brevard County Natural Resources, Save Our Indian River Lagoon Enhanced Transparency and Tourism Annual Strategy, \$95,000.

Description of Project. The Indian River Lagoon has one of the greatest diversity of plants and animals in the nation and provides Brevard County residents and visitors many opportunities and economic benefits. However, the balance of this delicate ecosystem has been disturbed as development in the area has led to harmful impacts. In November 2016, the Save Our Indian River Lagoon half-cent sales tax referendum was passed and provides funding – outlined in the annual-approved Save Our Indian River Lagoon Plan – for local projects designed to improve the health, productivity, aesthetic appeal, and economic value of the lagoon.

The purpose of this project is to provide transparency to residents and visitors who are unaware of the significant work being done to restore and ensure the lagoon health, as well as educating residents and visitors to Brevard County about behaviors beneficial to the Indian River Lagoon, with the goal of changing existing behaviors to behaviors more beneficial to improving the health of the Indian River Lagoon. By bringing about the adoption of beneficial behaviors, the Campaigns will help to improve the health of the Indian River Lagoon more quickly and efficiently. An increased rate of restoration of the Indian River Lagoon will in turn result in a larger number of IRL-related activities and pristine areas available for tourists to visit and experience.

The primary purpose of this feasibility study is to improve, maintain, re-nourish and restore the Indian River Lagoon by educating the public on about behaviors they can adopt which will improve the health of the Indian River Lagoon, an authorized purpose under section

125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #7- FY 2019/2020**

Brevard County Natural Resources, Manatee Hot Spot Map, \$23,140.

Description of Project. Currently, there is no comprehensive 'Manatee Hot Spot' map for visitors to explore Brevard County and find manatees on their own. Brevard locals are aware of many public-accessible boat ramps, parks, piers, canals, etc. where manatees can be seen regularly. Sharing this "local knowledge" with newcomers and visitors spreads awareness of manatees and the waters they inhabit, gets tourists to spread through the county and visit local businesses, and with proper marketing can encourage visitors to use local tour companies for an even closer look at our ecosystems. Only areas where public access is allowed year-round will be mapped. Increasing awareness of manatees creates a "trickle down" mindfulness of the issues that directly affect manatees, such as seagrass growth and water quality. The map will include the history of manatees, what makes them unique, the ecosystem quality they need to thrive, how visitors and citizens can help, and the role of stormwater management in lagoon health. It will also include educational material about seagrass, water quality, common misconceptions and other core lagoon information. Poster-size printed maps showing locations and educational tidbits will be distributed to tourism related businesses.

The primary purpose of the manatee hot spot map is to improve, maintain, re-nourish and restore the Indian River Lagoon by educating the public on manatee locations and increasing public mindfulness of the need for water quality and seagrass growth to benefit manatees, which will improve the health of the Indian River Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #8- FY 2019/2020**

Brevard County Natural Resources, Blue Crab Educational Pavilion and Promenade, \$130,500

Description of Project. The Blue Crab Cove project site is the last remaining riverfront commercial fishery operation in Brevard County. Blue Crab Cove Educational Pavilion and Promenade project addresses the issue of public awareness / local knowledge of ecosystems that sustain commercial and recreational fisheries in Brevard County. An appreciation of the benefits provided by the Indian River Lagoon combined with an education acknowledging the intricate link between fisheries and the ecosystem will help develop well-informed citizens who in turn become stewards of the environment with pride in their community. With commercial crabbers pulling up to unload, the Ms. Apples serving live crabs adjacent to an active working waterfront, the educational friendly material will allow visitor to make the connection between

the health of the Indian River Lagoon and health of commercial fisheries in a real, visceral way. The site will provide a publicly managed location for community based educational programs with a lagoon emphasis.

Blue Crab Cove Educational and Promenade Project will enrich an already popular area known for good food, rocket launches, fireworks viewing, fishing, and boating. Investing in the Educational Pavilion and Promenade recognizes our county's dedication to protecting its history and environment while welcoming visitors with clean, valuable infrastructure. An area is defined by the things it chooses to protect – Brevard County should be known as a place that values its native ecology and culture while embracing progress, tourism and reasonable growth. The success of this project's tourism benefits can be measured by car counts, revenue fluxes of nearby businesses, online reviews, or tactically-located visitor sign-in /comment sheets.

The primary purpose of the Blue Crab Cove educational project is to improve, maintain, re-nourish and restore the health of the Indian River Lagoon by educating the public on the ecosystems that sustain commercial and recreational fisheries in Brevard County which will develop visitors who become stewards of the environment with pride in their community, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #9- FY 2019/2020**

Brevard County Parks and Recreation, Boat Ramp Educational Signs, \$49,000.

Description of Project. The project will address the problem of providing educational information to the boating community of Brevard County and to the many tourists who visit Brevard County from throughout the state and nation to enjoy the Indian River Lagoon. There is currently little educational environmental signage at County boat ramps. This project will provide standardized signage and address a variety of environmental issues to the Lagoon.

The primary purpose of the Boat Ramp Educational Sign project is to improve, maintain, re-nourish and restore the health of the Indian River Lagoon by educating Boaters on the importance of preserving the environmental ecosystem of the Indian River Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #10- FY 2019/2020**

Brevard County Natural Resources, AquaLutions Indian River Lagoon Scrubbing Feasibility Study, \$49,282.

Description of Project. Project will study the feasibility of using AquaFibers's water restoration technology called AquaLutions as a method to remove excess nutrients (i.e., nitrogen and phosphorus) from the Indian River Lagoon and its tributaries. The project location will be

portion of the lagoon adjacent to the Merritt Island Airport on Newfound Harbor, or other county owned property on the lagoon front.

Recent harmful algal blooms (HABs) in the Indian River Lagoon and other parts of Florida have demonstrated how detrimental they can be to local and State economy, especially tourism, and has a cascade effect that affects more than just those businesses that rely on healthy water. The project will test the ability of AquaLutions to improve and restore the Indian River Lagoon water quality in order to reduce the frequency of harmful algal blooms and enhance the aquatic ecosystem. If successful, the project can be scaled up and used to scrub nutrients and algae from the lagoon at priority locations and/or in conjunction with the County's dredging program to ensure that the water returned to the Indian River Lagoon meets state water quality standards and TMDL requirements. The project will include a four-week run of the AquaLutions system housed in a mobile trailer. The data will be synthesized to conclude whether a large scale system could meet state and federal water quality targets for the Indian River Lagoon.

The primary purpose of the AquaLutions Indian River Lagoon Scrubbing Feasibility project is to improve, re-nourish and restore the health of the Indian River Lagoon by studying/testing the ability of AquaFiber's water restoration technology to effectively remove excess nutrients (nitrogen and phosphorus) from the water of the Indian River Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #12, 14 and 16 - FY 2019/2020 to FY 21/22 with a 2 Year Option to FY 23/24**

Keep Brevard Beautiful (KBB) SR 528, US 192, SR 518 and Max Brewer Causeway Litter Removal Projects \$60,657 (FY 19/20 only)

KBB will continue the SR 528, US 192, SR 518 and Max Brewer Causeway Litter Removal Projects in partnership with the TDC and in some cases other partners like the Canaveral Port Authority to remove litter and debris along the causeways. Areas covered include parts of Cocoa, Melbourne, Merritt Island, and Port Canaveral. Litter removal is currently done through weekly cleanups by paid KBB staff focusing not only on visible litter, but on smaller litter, such as plastic fragments, in order to prevent negative impacts on the Indian River Lagoon, should the trash reach the river.

This four causeways will done on a three year contract with KBB that includes a one two year option at a cost of \$60,657 a year.

The primary purpose of the causeway litter removal project is to improve and maintain the health of the Indian River Lagoon by removing litter that may pollute the Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #16- FY 2019/2010**

## Brevard Zoo, Shuck & Share: Brevard Oyster Recycling

**Description of Project.** Brevard County has suffered from a loss of oyster habitat due to overharvesting and reduced water quality in the Indian River Lagoon. Oysters in combination with mangroves and salt marsh plants create living shorelines, providing coastal resiliency in the lagoon by dissipating wave energy and trapping sediments. Living shorelines also protect the coastline from erosion and storm surge flooding. Shuck & Share program at the Brevard Zoo began in 2014 and has since recycled 3.6 million pounds of shell from a local oyster shucking house, local restaurants, and festivals. This recycled shell has been used to support various oyster restoration projects in the Indian River Lagoon, including Brevard Zoo's Oyster Gardening project and the construction of 15 oyster reefs in partnership with Brevard County Natural Resources. This project will allow for these efforts to expand and continue the important work.

Shuck & Share targets seafood restaurants throughout Brevard County, some of the most popular tourist destinations in the county as visitors see the local seafood tradition and often waterfront views. Signage at the restaurants about Shuck & Share program assist in educating visitors and residents about this ongoing program.

The primary purpose of the Shuck and Share project is to improve, maintain, re-nourish and restore the health of the Indian River Lagoon by collecting oyster shells from restaurants to be used in living shoreline projects in the Indian River Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

### **Project #1 – FY 2018/2019**

Brevard Zoo, Shuck & Share, \$32,500.

**Description of Project.** This is a request to ratify, modify and extend an existing grant, with no increase in funds, from FY 2018/2019 grant to allow the Shuck & Share program to purchase a truck for the program instead of renting the truck. Brevard County has suffered from a loss of oyster habitat due to overharvesting and reduced water quality in the Indian River Lagoon. Oysters in combination with mangroves and salt marsh plants create living shorelines, providing coastal resiliency in the lagoon by dissipating wave energy and trapping sediments. Living shorelines also protect the coastline from erosion and storm surge flooding. Shuck & Share program at the Brevard Zoo began in 2014 and has since recycled 3.6 million pounds of shell from a local oyster shucking house, local restaurants, and festivals. This recycled shell has been used to support various oyster restoration projects in the Indian River Lagoon, including Brevard Zoo's Oyster Gardening project and the construction of 15 oyster reefs in partnership with Brevard County Natural Resources. This project will allow for these efforts to expand and continue the important work.

Shuck & Share targets seafood restaurants throughout Brevard County, some of the most popular tourist destinations in the county as visitors see the local seafood tradition and often waterfront views. Signage at the restaurants about Shuck & Share program assist in educating visitors and residents about this ongoing program.

The primary purpose of the Shuck and Share truck acquisition project is to improve, maintain, re-nourish and restore the health of the Indian River Lagoon by purchasing a truck which will primarily be used to collect oyster shells from restaurants which will then be used in living shoreline projects in the Indian River Lagoon, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

**Project #2 – FY 2018/2019**

Florida Institute of Technology, Biorock, \$39,090.

Description of Project. This is a request to extend the Biorock program through December 31, 2019, with no increase in funding. The project needs some additional time to complete its testing. "Biorock: An Environmentally Friendly Alternative to Plastic for Oyster Restoration and Living Shoreline in the Indian River Lagoon" is a project aimed at testing a more environmentally friendly technique to replace the plastic mats currently used in oyster reef restoration and living shorelines with cathodically protected steel. The Biorock has the potential to enhance the growth of oysters and other calcareous filter feeding organisms to improve water clarity and quality, which will benefit the health of the Lagoon and have a positive impact on Tourism.

The grant extension will allow the project to continue and use remaining funds and incur expenses through December 31, 2019.

The primary purpose of the Biorock project is to improve, maintain, re-nourish and restore the health of the Indian River Lagoon by testing the viability of cathodically protected steel for living shoreline projects in the Indian River Lagoon, instead of plastic, an authorized purpose under section 125.0104(5)(a)5, Florida Statutes and Section 102-119(4)a of the Brevard County Code of Ordinances.

9-17-

**Community Services Group**

3. Tourism + Lagoon Grant Projects

**Public Safety Group**

4. Resolution for the Participation Florida Medicaid Managed Care EMS Supplemental Payment Program

**Support Services Group**

**County Attorney**

**County Manager**

5. Internal Audit Committee Members

**Miscellaneous**

6. Resolution re: Recognition of the 108th National Day of the Republic of China (Taiwan) and her achievements, District 2

**Add Ons**

7. Approval, Re: Interlocal Agreement with the Melbourne Housing Authority
8. Bright House Networks Voice Communications Contract - 1st Year Renewal Option Agreement

**K. PUBLIC COMMENTS**

**L. BOARD REPORTS**

1. Frank Abbate, County Manager
2. Eden Bentley, County Attorney
3. Rita Pritchett, Commissioner District 1
4. Bryan Lober, Commissioner District 2, Vice Chair
5. John Tobia, Commissioner District 3
6. Curt Smith, Commissioner District 4
7. Kristine Isnardi, Commissioner District 5, Chair

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In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing special accommodations or an interpreter to participate in the proceedings, please notify the County Manager's Office no later than 48 hours prior to the meeting at (321) 633-2010.

Assisted listening system receivers are available for the hearing impaired and can be obtained from SCGTV staff at the meeting. We respectfully request that ALL ELECTRONIC ITEMS and CELL PHONE REMAIN OFF while the County Commission is in session. Thank You.

This meeting will be broadcast live on Space Coast Government Television (SCGTV) on Spectrum