

**INDIAN RIVER COUNTY, FLORIDA  
BOARD MEMORANDUM**

---

**TO:** Jason E. Brown, County Administrator

**THROUGH:** Richard B. Szpyrka, P.E., Public Works Director

**THROUGH:** Eric Charest, Natural Resources Manager

**FROM:** Molly Klinepeter, Lagoon Plan Environmental Specialist

**SUBJECT:** **Research Review Phase of the IRC Lagoon Management Plan: Update 4**

**DATE:** September 9, 2021

---

**BACKGROUND**

On July 16, 2019, the Indian River County Board of County Commissioners (BCC) adopted an outline for developing the County's Indian River Lagoon Management Plan for our portion of the Indian River Lagoon (Lagoon). Staff was approved to use a multi-phased approach to develop this plan over the timeline identified in Attachment A (Research Plan Timeline). The first phase was the Research Review Phase, which identified 17 key factors that may be impacting the health of the Lagoon in our area. Staff has been working with numerous departments and stakeholders involved with the Lagoon to gather current scientific and data-based information about these outlined factors. Following collection of this information, staff have been:

- consolidating available data
- identifying informational gaps
- preparing infographics to disseminate information learned

Staff is to present four quarterly presentations to the BCC about information collected. Staff will provide a presentation to the BCC about our findings for our fourth and final quarter research phase which addresses the 5 remaining topics identified in the approved timeline, focusing on areas where more information may be needed in order to determine what impacts may be occurring as related to the fields of study. Supporting research on the summaries presented in this agenda is included as Attachment B.

**DESCRIPTIONS AND CONDITIONS**

The topics to be presented are as follows:

**1. Marinas and Boat Ramps (Part 2)**

Marinas and boat ramps are heavily used throughout the Indian River Lagoon (Lagoon) by the local community and visitors for boating purposes. Boating in the Lagoon is an enjoyable activity for many, but it comes with responsibilities and regulations that must be adhered to in order to protect the natural resources present. Rules and regulations vary from the state-level to the local-level depending on specific county and city ordinances in place. It is important for boaters to be aware of these regulations when boating or mooring out on the Lagoon.

## **2. Onsite Sewage Treatments and Disposal Systems (OSTDS)**

OSTDS, or septic systems, are one form of waste treatment that can be utilized by homes throughout Florida. However, improper maintenance of OSTDSs can lead to detrimental impacts on the surrounding environment. Alternate options to OSTDSs include connections to a sewer system where available or upgrading OSTDS to enhanced treatment systems. This is especially important for homeowners within sensitive watersheds, such as the Lagoon's watershed. People are continually moving to Florida, and homes should be adequately equipped to not impact the resources around them when possible.

## **3. Stormwater**

The County's Stormwater Division is tasked with reducing, to the maximum extent possible, the pollution of the Lagoon caused by stormwater runoff and base groundwater flow. The Division is also responsible for helping the County implement federally mandated National Pollutant Discharge Elimination System (NPDES) permit goals. These goals are accomplished through design, construction, and operation of regional stormwater pollution removal systems; education; and fertilizer, sediment, and erosion control enforcement monitoring.

## **4. Water Consumption**

Water is a necessity not only for humans but for ecosystems throughout Florida, including the Indian River Lagoon (the Lagoon). Water supplies need to be sustainable for future needs as populations and demand continue to increase throughout the County and state-wide. It is also important to remember that any water consumed and sent down toilets and drainpipes on residential and commercial properties must be treated and disposed, with limited options for disposal of the treated wastewater. There are numerous actions that can be taken to protect this limited resource, from a regional-scale to an individual-scale.

## **5. Sustainability and Resiliency (Part 2)**

Sustainability and resiliency are terms often misunderstood as buzz-words used throughout the world today. In the context of the Lagoon, sustainability can be defined as the ability of the Lagoon to survive in the future, environmentally, socially, and economically. Resiliency is defined as the ability of the Lagoon to prepare for threats, absorb impacts, recover and adapt following persistent stress or a disruptive event (Science of the Environment, February 2018). Together, these terms are used in the creation of proactive approaches to ensure the long-term future of the Lagoon. Sustainability and resiliency actions can occur on a large scale, regional scale, or on a homeowner-level scale. The Lagoon is a valuable asset, and benefits the County receives from it are far more than its presence as an estuary in our backyard.

## **FUNDING**

Funding is not necessary for the update of the Research Review Phase.

### **NEXT STEPS**

This concludes the Research and Review Phase of the County's Lagoon Indian River Lagoon Management Plan (Plan). Based on the accepted approach for the creation of this plan, the next step for staff would be to begin the creation of the Plan itself. The 17 key factors discussed throughout the Research and Review Phase will make up the main elements of this Plan. These factors are all intertwined when discussing management of the Lagoon, and it would be difficult to create a holistic Plan without the inclusion of all topics discussed previously. It is anticipated the Plan creation will take 8-12 months to complete.

### **RECOMMENDATION**

Staff is requesting continued support for the development of the Indian River Lagoon Management Plan.

### **ATTACHMENT**

- A. Research Plan Timeline
- B. Supporting Research

**APPROVED AGENDA ITEM FOR: September 21, 2021**