



# Brevard County Board of County Commissioners

2725 Judge Fran Jamieson  
Way  
Viera, FL 32940

## Legislation Text

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**File #:** 2875, **Version:** 1

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### **Subject:**

Discussion re: Microplastics in the Indian River Lagoon, District 2

### **Fiscal Impact:**

### **Dept/Office:**

District 2

### **Requested Action:**

Consider and discuss the issue of microplastics in the Indian River Lagoon, and direct staff to prepare a memorandum on the issue (i.e., research, options, funding).

### **Summary Explanation and Background:**

The Citizens Oversight Committee (hereinafter "COC") has, historically, prioritized SOIRL projects based upon the cost per pound of nitrogen containing molecule removed from (or kept out of) the lagoon. While preventing organics from entering the lagoon and removing those already in it is unquestionably beneficial, other concerns impacting water quality and aquatic health have not and do not have a clear fit into the existing SOIRL project prioritization methodology of looking at cost per pound of removed nitrogen.

A constituent (Elizabeth T. Baker of Merritt Island) recently approached the County Commission to express concerns regarding microplastics entering the lagoon, breaking down, and entering the bodies of aquatic animals, some of which are eaten by humans. A portion of this plastic originates from roadside litter being mowed over and, in the process, shredded. Some of this shredded plastic enters the lagoon and breaks down into microplastics.

Research into possible human health implications of microplastic consumption remains ongoing. Recent research has shown microplastics inside humans. See: Methods for microplastics, nanoplastics and plastic monomer detection and reporting in human tissues (American Chemical Society), <https://www.acs.org/content/acs/en/pressroom/newsreleases/2020/august/micro-and-nanoplastics-detectable-in-human-tissues.html>. Additional research indicates that microplastics also may be found in placental tissue. See: Plasticenta: First evidence of microplastics in human placenta (Science Direct), <https://www.sciencedirect.com/science/article/pii/S0160412020322297>.

I am not an expert in microplastics or on their relative impact to the lagoon in comparison to organics. As such, I have no means of immediately determining whether it may be appropriate to divert some percentage of funding from preventing the entry of organics and removing them from the lagoon to the potential competing goal of preventing microplastics from entering the lagoon.

As such, I ask that we direct staff, in Brevard County's Department of Natural Resources, to research the issue and prepare a memo for consideration by the COC and the BoCC.

**Clerk to the Board Instructions:**