



# Brevard County Board of County Commissioners

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Way  
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## Legislation Text

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**File #:** 1415, **Version:** 1

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### **Subject:**

Temporary moratorium on new applications of biosolids to lands within Brevard County.

### **Fiscal Impact:**

FY 20/21: Advertising Costs

### **Dept/Office:**

Natural Resources Management

### **Requested Action:**

Recommend approval to the Board of County Commissioners for extension of the current biosolids moratorium for another 180-days.

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

On March 24, 2020, in regular session, the Board of County Commissioners considered new sample data, and provided legislative intent and permission to advertise an extension of the current biosolids moratorium for another 180-days.

On October 8, 2019, in regular session, the Brevard County Commission approved a 180-day moratorium on any new permits that would expand the application of biosolids to lands in Brevard County. The Board directed staff to sample potential causes or contributing factors of lake pollution and report back to the Board in six months for re-evaluation.

The moratorium is in response to a blue-green cyanobacteria, *Dolichospermum circinale*, bloom in Lake Washington in the summer of 2019, which generated questions about the safety of a primary drinking water supply for Brevard County. Toxin levels measured during the 2019 bloom were low and did not indicate human health concerns. Based on available data at that time, likely contributors were nutrients from the land application of biosolids and/or commercial fertilizer on agricultural lands upstream and west of the lake, state water management projects upstream of the lake, or commercial/industrial and residential development and septic systems east of the lake.

County staff collaborated with the University of Florida, United States Department of Agriculture's Natural Resources Conservation Service, Brevard Soil and Water Conservation District, Florida Department of Environmental Protection, and St. Johns River Water Management District to develop a sampling plan. A multi-agency team collaborated to collect 50 soil samples from the ranch while Applied Technology, Inc., with supervision from county and University of Florida staff, collected 11 water samples, and 3 grass tissue samples. Samples were tested for multiple forms of nitrogen and phosphorus, 7 metals, 24 polyfluoroalkyl substances (PFAS), and 58 pharmaceuticals, personal care products and other contaminants of emerging concern at Deer

Park Ranch, upstream of and within Lake Washington, and in residential drainage canals entering Lake Washington.

No manmade chemicals suggestive of human health concerns were found leaving Deer Park Ranch. While a few pharmaceuticals were found in plant tissue samples on the ranch, these were not found in water leaving the site. Metals leaving the site were low concentrations, below drinking water threshold values, assuming typical hardness values for local surface waters. The only contaminants of emerging concern found leaving the site were PFAS compounds. Most of the PFAS level results were below laboratory detection limits. None of the PFOA+PFOS (perfluorooctanoic acid and perfluorooctanesulfonic acid) concentration results exceeded the lifetime drinking water health-advisory of 70 ng/L nor the state's ecological surface water screening levels for PFOA or PFOS. Canals draining developed areas east of the lake had higher PFAS concentrations than waters leaving the ranch. One roadside canal sample collected east of the lake contained PFOS levels higher than a recently proposed, still provisional, state human health surface water screening level. (See attachment: Water Sampling Report.)

The soil and water samples both indicate that phosphorus from state-permitted land application of biosolids to cattle pastures is leaving Deer Park Ranch and entering the St. Johns River during periods of heavy rain. Soil data indicate that a long history of land applying biosolids on the ranch has exceeded the capacity of most pasture soils to hold phosphorus. The resultant release of excess phosphorus contributes to alteration of the natural nitrogen to phosphorus ratios in local surface waters and an associated increased risk of harmful algal blooms in Lake Washington. (See Attachments: Water Sampling Report and Soil Sampling Results)

Biosolids legislation in Senator Mayfield's Clean Waterways Act (Senate Bill 712) was approved by the Legislature on March 12, 2020, and is awaiting signature from Governor DeSantis. This legislation allows for the extension of county biosolids moratoria adopted prior to November 1, 2019. Staff are closely monitoring the progress of proposed state rule revisions that consider the latest research in phosphorus pollution.

### **Clerk to the Board Instructions:**

None