



Brevard County Board of County Commissioners

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Legislation Text

File #: 4850, **Version:** 1

Subject:

Extension of Temporary Moratorium on New Applications of Biosolids to Lands within Brevard County - Public Hearing.

Fiscal Impact:

FY 21/22: Advertising Costs

Dept/Office:

Natural Resources Management

Requested Action:

It is requested that the Board of County Commissioners conduct a public hearing on adopting an extension of the moratorium on any new applications of biosolids to lands within Brevard County for 365 days.

Summary Explanation and Background:

The moratorium was initially in response to a blue-green cyanobacteria, *Dolichospermum circinale*, bloom in Lake Washington in July 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. Additional blooms producing toxic microcystins, still below thresholds for human health concerns, were documented in September 2020, March 2021, December 2021, January 2022, and March 2022.

Based on available data at the time of the initial moratorium, largest likely contributors to harmful blooms 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. Additional studies by multiple agencies after the 2019 bloom provide increased evidence that the land application of biosolids is the most significant source of increasing phosphorus concentrations and associated risk of toxic blooms in Lake Washington.

State biosolids rule revisions adopted in 2020 are expected to reduce phosphorus pollution but not prevent it. Funding was provided to the St. Johns River Water Management District for biosolids research on the continuing impacts under the new rule and to inform future rule revisions and potential mitigation measures. This research is underway with completion expected by mid-2025.

History:

On October 8, 2019, in regular session, the Brevard County Commission approved Ordinance 19-20, a 180-day moratorium on any new permits that would expand the application of biosolids to lands in Brevard County.

The moratorium was 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, but to ensure public safety, the Board directed staff to sample potential causes or contributing factors of lake pollution and report back to the Board in six months.

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 Ecology, 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, and other contaminants of emerging concern at Deer Park Ranch, upstream of and within Lake Washington, and in residential drainage canals entering Lake Washington from the east.

The soil and water samples both indicated that elevated levels of phosphorus from state-permitted land application of biosolids to cattle pastures leave Deer Park Ranch and enter the St. Johns River during periods of heavy rain. Soil data indicated that a long history of land applying biosolids on the ranch has exceeded the capacity of most pasture soils to hold all the phosphorus. The resultant release of excess phosphorus contributes to altered nitrogen to phosphorus concentration ratios in local surface waters and associated increased risk of harmful algal blooms in Lake Washington, an important source of local drinking water.

No elevated levels of contaminants of concern for human health 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 Water Sampling Report and Soil Sampling Results are attached.

The Board of County Commissioners voted in favor of 180-day extensions of the temporary biosolids moratorium in April and October of 2020, in March and August of 2021, and again in February 2022, as Ordinances 2020-05, 2020-18, 2021-07, 2021-20 and 2022-04 respectively.

Biosolids legislation in Senator Mayfield's Clean Waterways Act (Senate Bill 712) was approved by the Legislature on March 12, 2020. This legislation directed the Department of Environmental Protection (FDEP) to revise its rules to reduce the impacts of biosolids on water quality and allows for the extension of county biosolids moratoria adopted prior to November 1, 2019. On June 21, 2021, Governor DeSantis signed House Bill 1309 allowing the FDEP to move forward with rule adoption without review by the Environmental Regulation Commission. As of July 1, 2022, FDEP requires biosolids land application sites to be enrolled in Florida Department of Agriculture and Consumer Services Best Management Practices program and prohibits land application on soils with a seasonal high water table within six inches of the soil surface or depth of biosolids placement.

Clerk to the Board Instructions:

If adopted, please return a certified copy of the ordinance to Natural Resources.