



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Public Hearing

H.1.

7/9/2024

Subject:

Extension of Temporary Moratorium on New Applications of Biosolids to Lands within Brevard County

Fiscal Impact:

N/A

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 for any new applications of biosolids to lands within Brevard County for 365 days.

Summary Explanation and Background:

On October 8, 2019, the Board of County Commissioners 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 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, March 2022, and February 2023.

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. The Board voted in favor of a 365-day extension of the moratorium on August 2, 2022, and again on July 11, 2023, as Ordinance 2022-19 and 2023-13.

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.

The 2020 state biosolids rule revisions 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.

Clerk to the Board Instructions:

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



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July 10, 2024

M E M O R A N D U M

TO: Virginia Barker, Natural Resources Management Director

RE: Item H.1., Extension of Temporary Moratorium on New Applications of Biosolids to Lands within Brevard County

The Board of County Commissioners, in regular session on July 9, 2024, conducted a public hearing and adopted Ordinance No. 24-11, extending the temporary moratorium on new applications of biosolids to lands within Brevard County for 365 days. Enclosed is fully-executed Ordinance.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
RACHEL M. SADOFF, CLERK

A handwritten signature in cursive script that reads "Kimberly Powell".

Kimberly Powell, Clerk to the Board

Encl. (1)

cc: County Attorney



FLORIDA DEPARTMENT *of* STATE

RON DESANTIS
Governor

CORD BYRD
Secretary of State

July 12, 2024

Honorable Rachel M. Sadoff
Board of County Commissioners
Brevard County
Post Office Box 999
Titusville, FL 32781-0999

Dear Honorable Rachel Sadoff,

Pursuant to the provisions of Section 125.66, Florida Statutes, this will acknowledge receipt of your electronic copy of Brevard County Ordinance No. 2024-11, which was filed in this office on July 11, 2024.

Sincerely,

Matthew Hargreaves
Administrative Code and Register Director

MJH/wlh

ORDINANCE NO. 2024-11

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA AUTHORIZING AN EXTENSION OF TEMPORARY COUNTY-WIDE MORATORIUM FOR 365 DAYS FROM THE EFFECTIVE DATE; PROHIBITING THE LAND APPLICATION OF CLASS B BIOSOLIDS EXCEPT EXISTING PERMITTED ACTIVITIES; PROVIDING FOR EXHAUSTION OF ADMINISTRATIVE REMEDIES; AND PROVIDING FOR SEVERABILITY, REPEAL OF CONFLICTING PROVISIONS, RESOLUTION OF CONFLICTING PROVISIONS; AREA ENCOMPASSED AND AN EFFECTIVE DATE.

WHEREAS, as provided in Article VIII, Section 1 of the Florida Constitution and Chapter 125, Florida Statutes, counties have broad home rule powers to enact ordinances, not inconsistent with general or special law, for the purpose of protecting the public health, safety and welfare of the residents of the county; and

WHEREAS, Class B biosolids are solid, semi-solid, or liquid materials resulting from the treatment of domestic waste from sewage treatment facilities that contain nutrients such as phosphorus and nitrogen; and

WHEREAS, Elevated levels of phosphorus and nitrogen have been a point of concern for estuaries and watersheds across the state, as correlative connections have been observed between elevated levels of phosphorus and nitrogen, algal blooms, and the growth of noxious vegetation; and

WHEREAS, the land application of biosolids has been identified as a potential explanation for toxic algae blooms that occurred in Blue Cypress Lake in 2018 and Lake Washington in 2019¹; and

WHEREAS, Lake Washington provides water supply for the City of Melbourne's potable water utility that supplies drinking water to approximately 170,000 residents in

¹ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, January 23, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River: January 2019 Update.

Officially filed with the Secretary of State July 11, 2024.

Melbourne, West Melbourne, Palm Shores, Satellite Beach, Indian Harbour Beach, Indialantic, Melbourne Beach and portions of unincorporated Brevard County; and

WHEREAS, preliminary analysis of available ambient water quality data by St. Johns River Water Management District indicates a potential, but not conclusive, relationship between the cumulative amount of phosphorus applied to land in biosolids and increasing phosphorus concentrations in downstream waters²; and

WHEREAS, preliminary analysis by St Johns River Water Management District of available ambient water quality data for watersheds with lower levels of biosolids application do not indicate similar trends of increasing phosphate concentrations³; and

WHEREAS, watersheds receiving biosolids and experiencing increasing phosphorus concentrations in downstream waters are not showing increased turbidity or total suspended solids, reducing the likelihood that erosion is the source of increasing phosphorus concentrations⁴; and

WHEREAS, watersheds receiving biosolids and experiencing increasing phosphorus concentrations in downstream waters are not showing increased total organic carbon, reducing the likelihood that natural export processes are the source of increasing phosphorus concentrations⁵; and

WHEREAS, watersheds receiving biosolids and experiencing increasing phosphorus concentrations in downstream waters are not showing significant changes

² St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, January 23, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River: January 2019 Update.

³ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

⁴ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, January 23, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River: January 2019 Update.

⁵ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

in land use, reducing the likelihood that development is the source of increasing phosphorus concentrations⁶; and

WHEREAS, the most prevalent land use within the watersheds at issue is agriculture and there are few other known sources of phosphorus loading large enough to potentially explain the increasing phosphate level trends in the Upper Basin of the St Johns River, including Brevard⁷; and;

WHEREAS, other possible sources of increasing phosphorus in Lake Washington include septic systems on the east side of Lake Washington; water coming from flooded water management areas south of Highway 192 in Brevard and Indian River Counties that used to be crop land; and phosphorus applied to homeowner yards; and

WHEREAS, biosolids from Brevard County-operated wastewater treatment plants are safely disposed of in the lined County landfill while biosolids from multiple cities in Brevard are land applied; and

WHEREAS, biosolids being applied to land in Brevard County and neighboring counties are primarily from South Florida where landfill costs are higher than the cost to truck biosolids to the Upper Basin of the St Johns River, with only 11% of biosolids applied within the Upper Basin produced by utilities within the Upper Basin⁸; and

⁶ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

⁷ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

⁸ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

WHEREAS, biosolids application in the Upper Basin tripled in 2013, continuing thereafter, in response to when rule revisions to protect the Everglades became fully effective⁹; and

WHEREAS, the land application of biosolids has been restricted in neighboring counties and ecosystems to the south, such as the St. Lucie River watershed and the Lake Okeechobee watershed and a temporary moratorium in Indian River County, leaving the St. Johns River watershed in and adjacent to Brevard County as the next closest alternative up the east coast for the disposal and land application of Class B biosolids generated in South Florida; and

WHEREAS, phosphate concentrations are may continue to trend upward under new state rules with increasing tonnage coming from outside the County but being applied in the Upper Basin of the St Johns River, adjacent to our drinking water supply¹⁰; and

WHEREAS, increasing phosphate levels increase the risk of algal blooms, especially taxa that produce toxins such as microcystins and saxitoxins¹¹; and

WHEREAS, Lake Washington and large portions of the Upper Basin of the St. Johns River are classified by the Florida Department of Environmental Protection as Class I surface waters with a designated use for potable water supplies¹²; and

WHEREAS, portions of the Upper Basin of the St Johns River have been designated as impaired and local jurisdictions including Brevard County and its

⁹ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

¹⁰ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

¹¹ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

¹² St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

taxpayers are required to reduce total phosphorus loading from the sum of sources by as much as 52%¹³; and

WHEREAS, approximately \$250 million has been invested in state and federal Upper Basin restoration work to restore historic flows and levels¹⁴; and

WHEREAS, the land application activities of Class B biosolids is currently being conducted on property in Brevard County, within the watershed of the St. Johns River; and

WHEREAS, adding to the present nutrient levels in the St. Johns River Basin may further inflict damage to the local economy as well as the health, safety, and welfare of humans and wildlife in Brevard County and the State of Florida; and

WHEREAS, in 2018 the Department of Environmental Protection created a Biosolids Technical Advisory Committee to evaluate the current management practices and explore opportunities to better protect Florida's water resources and the Committee agreed to a list of recommendations in January 2019; and

WHEREAS, in 2019 the Florida Legislature considered several bills to address concerns regarding biosolids and implement recommendations of the Technical Advisory Committee; and

WHEREAS, the Department of Environmental Protection considered the recommendations of the Technical Advisory Committee to draft rule revisions ratified during the 2021 Legislative session; and

¹³ Florida Department of Environmental Protection TMDL Report: Nutrient and DO TMDLs for the St. Johns River above Lake Poinsett (WBID 2893L), Lake Hell n' Blazes (WBID 2893Q), and St Johns River above Sawgrass Lake (WBID 2893X), April 2006

¹⁴ St. Johns Water Management District Update to the Biosolids Technical Advisory Committee, November 28, 2018. Patterns in Surface Water Phosphorus Concentrations and Biosolids Utilization in the Upper St. Johns River.

WHEREAS, the new biosolids rules ratified by the Legislature in 2021 increase water quality protections but still allow more phosphorus to be land applied per year than the amount of phosphorus anticipated to be removed by the harvest of crops; and

WHEREAS, the Board of County Commissioners (“Board”) finds that the proper regulation of the land application of Class B biosolids is necessary and appropriate to protect potable water supplies as well as guide the future use, development, and protection of the land and natural resources in Brevard County; and

WHEREAS, the Board has determined that the temporary moratorium on new or expanding biosolids application is needed to protect water quality in Lake Washington, the St. Johns River watershed and surrounding water bodies, from adverse impacts potentially caused by the land application of Class B biosolids; and

WHEREAS, the owners of agricultural properties currently permitted to land apply Class B biosolids in Brevard County have implemented nutrient management plans and installed systems to collect drainage water and reuse it for irrigation, capturing and reusing excess nutrients draining from the farmland; and

WHEREAS, applying biosolids to pastureland amends the soils and recycles organic nutrients that are removed from the land each year by cattle and the harvest of sod; and

WHEREAS, the use of biosolids as fertilizer reduces the need for landfill space; and

WHEREAS, research has shown that organic sources of fertilizer such as biosolids are much less water soluble than commercial chemical fertilizer¹⁵; however, soil and water sampling indicate that the pasture land where Class B biosolids have

¹⁵ Silveira, M.L., G.A. O'Connor, Y. Lu, J. E. Erickson, C. Brandani and M. M. Kohmann, 2019. Runoff and Leachate Phosphorus and Nitrogen Losses from Grass-Vegetated Soil Boxes Amended with Biosolids and Fertilizer. *Journal of Environmental Quality*. doi; 10.2134/jeq2019.03.0106

been applied has exceeded its capacity to hold phosphorus and phosphorus is leaving those pasture lands and entering the St. Johns River during heavy rains¹⁶; and

WHEREAS, the Board enacted Ordinance 2019-20 imposing a 180-day temporary moratorium on any new Class B biosolids applications on October 8, 2019; and

WHEREAS, Section 403.0855(6), Florida Statutes (2020) allows for the extension of county moratoriums on the land application of Class B biosolids which were adopted prior to November 1, 2019; and

WHEREAS, The Board enacted Ordinance 2020-05 imposing a 180-day extension of the temporary biosolids moratorium on April 7, 2020; and

WHEREAS, The Board enacted Ordinance 2020-18 imposing a 180-day extension of the temporary biosolids moratorium on October 6, 2020; and

WHEREAS, The Board enacted Ordinance 2021-07 imposing a 180-day extension of the temporary biosolids moratorium on March 9, 2021; and

WHEREAS, The Board enacted Ordinance 2021-20 imposing a 180-day extension of the temporary biosolids moratorium on August 24, 2021; and

WHEREAS, The Board enacted Ordinance 2022-04 imposing a 180-day extension of the temporary biosolids moratorium on February 8, 2022; and

WHEREAS, The Board enacted Ordinance 2022-19 imposing a 365-day extension of the temporary biosolids moratorium on August 2, 2022; and

WHEREAS, The Board enacted Ordinance 2023-13 imposing a 365-day extension of the temporary biosolids moratorium on July 11, 2023; and

¹⁶ Brevard County Sampling Report for the Land Application of Biosolids on Deer Park Ranch and Other Potential Impacts to Lake Washington Water Quality. Final Report 03-11-2020, Prepared by Applied Ecology, Inc.

WHEREAS, the Board specifically finds that this extension to the temporary moratorium on the land application of Class B biosolids is necessary and appropriate to protect the public health safety and welfare of the citizens of Brevard County.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA THAT:

Section 1. Recitals Adopted

Each of the recitals set forth above is hereby adopted and incorporated herein.

Section 2. Enactment Authority.

Article VIII, Section 1 of the Florida Constitution and Chapter 125, Florida Statutes, vest broad home rule powers in counties to enact ordinances, not inconsistent with general or special law, for the purpose of protecting the public health, safety and welfare of the residents of the County. The Board specifically determines that the enactment of this Ordinance is necessary to protect the health, safety and welfare of the residents of Brevard County.

Section 3. Temporary Moratorium.

Beginning on the effective date of this Ordinance and continuing for a period of 365 days, a moratorium is hereby imposed upon all properties within Brevard County on the land application of Class B biosolids, excepting existing permit holders and where determined to be preempted by state law or regulation.

Section 4. Expiration of Temporary Moratorium.

The temporary moratorium imposed by Section 3 of this Ordinance expires 365 days from the effective date of this Ordinance. The moratorium may be extended or terminated early by adoption of an ordinance or resolution of the Brevard County Board of County Commissioners.

Section 5. Exhaustion of Administrative Remedies.

A property owner claiming that this Ordinance, as applied, constitutes or would constitute a temporary or permanent taking of private property or an abrogation of vested rights shall not pursue such claim in court unless all administrative remedies have been exhausted.

Section 6. Severability.

If any part of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected by such holding and shall remain in full force and effect.

Section 7. Conflict.

All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 8. Resolution of Conflicting Provisions.

In the case of a direct conflict between any provision of this Ordinance and a portion or provision of any other appropriate federal, state or county law, rule, code or regulations, the more restrictive shall apply.

Section 9. Area Encompassed.

This Ordinance shall take effect COUNTYWIDE, within the municipal and unincorporated areas of Brevard County, Florida.

Section 10. Effective Date.

This Ordinance shall become effective upon adoption by the Board of County Commissioners and filing with the Department of State. A certified copy of the Ordinance shall be filed with the State, within ten days of enactment.

DONE, ORDERED AND ADOPTED in Regular Session, this 9th day of July 2024.

Attest:

BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA



Rachel Sadoff, Clerk



Jason Steele, Chair

(As approved by the Board on July 9, 2024)