



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Public Hearing

H.3.

10/8/2019

Subject:

Public hearing Re: A 180-day moratorium on any new applications of biosolids to lands within Brevard County.

Fiscal Impact:

FY19/20 - approximately \$30,000 from Fund 0004 for soil and water testing.

Preventing pollution may avoid and minimize future costs of restoring clean water.

Dept/Office:

Natural Resources Management

Requested Action:

It is requested that the Board of County Commissioners conduct a second public hearing on adoption of a 180-day moratorium on any new applications of biosolids to lands within Brevard County and authorize budget change requests to conduct testing at Deer Park Ranch.

Summary Explanation and Background:

In regular session on August 20, 2019, the Board of County Commissioners discussed whether adequate cause existed to ban the application of biosolids to lands within Brevard County, Florida. The Board approved a motion to develop an ordinance banning any new applications of biosolids to lands within the County for 6 months and directed staff to come back to the Board in six months for re-evaluation; authorized the Natural Resources Office to test for any contaminants of emerging concern, such as Perfluoroalkyl Substances (PFAS), pharmaceuticals, or any other chemical substances that may be of concern; approved beginning testing at Deer Park Ranch, with Billy Kempfer's permission, as soon as possible; and approved waiving legislative intent.

On September 5, 2019, the Local Planning Agency voted unanimously in support of the Board's proposed moratorium. On September 17, 2019, the Board of County Commissioners voted unanimously in favor of proceeding to the second Public Hearing for adopting the 180-day moratorium on any new applications of biosolids to lands within Brevard County.

Last summer, a toxin producing blue-green algae bloomed in Blue Cypress Lake, located in Indian River County at the headwaters of the St Johns River. Analysis by the state indicated biosolids application at the adjacent Pressley Ranch was likely a key factor contributing excess phosphorus nutrients that fueled the bloom. The Governor established a Biosolids Technical Advisory Committee and the Florida Department of Environmental Protection started drafting rule revisions to Chapter 62-640 that regulates the application of biosolids. During the 2019 Legislative session, the Florida House and Senate considered bills to tighten relevant state rules but no legislation was adopted.

Due to growing concerns, state staff reviewed available data for potential sources of increasing phosphorus 247

concentrations found at water quality stations in the St Johns River, including multiple stations in Brevard County. This analysis identified land application of biosolids as the most likely source large enough to generate the increasing phosphorus concentrations encountered in the river. Using maps and water quality monitoring data, the state concluded that land use changes, development, erosion, commercial fertilizer and septic were unlikely explanations for the large observed changes in phosphorus concentrations. Some scientists reviewing the state staff's analysis objected to the method used to discount the likelihood of commercial fertilizer being a significant factor. Further state monitoring and data analysis is still ongoing.

This summer, a toxin producing blue-green algae bloomed in Lake Washington, a primary drinking water supply for Brevard County. Based on the latest analyses of available data, the most likely contributors appear to be the land application of biosolids and/or commercial fertilizer. In the abundance of caution, the County Commission proposed a 6-month moratorium on any new applications of biosolids to lands in Brevard County and directed staff to conduct additional sampling and analysis and return with data in 6 months or less. The proposed 6-month moratorium is attached.

Clerk to the Board Instructions:

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



FLORIDA DEPARTMENT *of* STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

October 10, 2019

Honorable Scott Ellis
Clerk
Board of County Commissioners
Brevard County
Post Office Box 999
Titusville, Florida 32781-0999

Attention: Deborah Thomas

Dear Mr. Ellis:

Pursuant to the provisions of Section 125.66, Florida Statutes, this will acknowledge receipt of your electronic copy of Brevard County Ordinance No. 2019-20, which was filed in this office on October 10, 2019.

Sincerely,

Ernest L. Reddick
Program Administrator

ELR/lb



Tammy Rowe, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972
Tammy.Rowe@brevardclerk.us

October 30, 2019

MEMORANDUM

TO: Virginia Barker, Natural Resources Management Director

RE: Item H.3., 180-day Moratorium on Any New Applications of Biosolids to Lands within Brevard County

This is to correct memorandum of October 9, 2019. The Board of County Commissioners, in regular session on October 8, 2019, adopted Ordinance No. 19-20, authorizing 180-day moratorium on any new applications of biosolids to lands within Brevard County; **and authorized budget change requests to conduct testing at Deer Park Ranch.** Enclosed is a certified copy of the Ordinance.

Your continued cooperation is greatly appreciated.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Rowe

Tammy Rowe, Deputy Clerk

/ds

Encl. (1)

cc: Finance
Budget



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October 9, 2019

MEMORANDUM

TO: Virginia Barker, Natural Resources Management Director

RE: Item H.3., 180-day Moratorium on Any New Applications of Biosolids to Lands within Brevard County

The Board of County Commissioners, in regular session on October 8, 2019, adopted Ordinance No. 19-20, authorizing 180-day moratorium on any new applications of biosolids to lands within Brevard County. Enclosed is a certified copy of the Ordinance.

Your continued cooperation is greatly appreciated.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Rowe

Tammy Rowe, Deputy Clerk

/ds

Encl. (1)

ORDINANCE NO. 2019- 20

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA AUTHORIZING A TEMPORARY COUNTY-WIDE MORATORIUM FOR 180 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

Officially filed with the Secretary of State on October 10, 2019.

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.

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 waters¹; 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 concentrations²; 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 concentrations¹; 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 concentrations¹; and

WHEREAS, watersheds receiving biosolids and experiencing increasing phosphorus concentrations in downstream waters are not showing significant changes in land use, reducing the likelihood that development is the source of increasing phosphorus concentrations²; 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

² 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.

to potentially explain the increasing phosphate level trends in the Upper Basin of the St Johns River, including Brevard² 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 land applied 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 Basin²; and

WHEREAS, biosolids application in the Upper Basin tripled in 2013, continuing thereafter, in response to rule revisions to protect the Everglades became fully effective²; 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 likely to continue to trend upward under existing 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 supply²; and

WHEREAS, increasing phosphate levels increase the risk of algal blooms, especially taxa that produce toxins such as microcystins and saxitoxins²; 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 supplies²; 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 taxpayers are required to reduce total phosphorus loading from the sum of sources by as much as 52%³; and

WHEREAS, approximately \$250 million has been invested in state and federal Upper Basin restoration work to restore historic flows and levels²; 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

³ 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

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 is using the recommendations of the Technical Advisory Committee to draft rule revisions that are anticipated to be considered for Legislative ratification during the 2020 session; 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, to allow time for the state to complete additional data analyses and their on-going rule revision process, 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, County staff has met with owners of agricultural properties currently permitted through the Florida Department of Environmental Protection to land apply Class B biosolids and their use of bio-solids in Brevard in 2019 is significantly less than their use in 2018; 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, the owners of agricultural properties currently permitted to land apply Class B biosolids in Brevard County have indicated a good faith willingness to voluntarily comply with most of the state’s proposed provisions of Chapter 62-640 of the

Florida Administrative Code for all placement of biosolids in Brevard County until the new provisions are implemented by the State of Florida; 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, research has shown that organic sources of fertilizer such as biosolids are much less water soluble than commercial chemical fertilizer⁴; and

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

WHEREAS, the Board specifically finds that this 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.

⁴ 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

Section 3. Temporary Moratorium.

Beginning on the effective date of this Ordinance and continuing for a period of 180 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 180 days from the effective date of this Ordinance. The moratorium may be extended or terminated early by adoption of an ordinance 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 8 day of Oct., 2019.

Attest:

BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA



Scott Ellis, Clerk



Kristine Isnardi, Chair

(As approved by the Board on

Oct. 8, 2019)



Natural Resources Management Department

2725 Judge Fran Jamieson Way
Building A, Room 219
Viera, Florida 32940

BOARD OF COUNTY COMMISSIONERS

TO: Local Planning Agency (LPA)

FROM: Virginia Barker, Director, Natural Resources Management Department

DATE: August 23, 2019

SUBJECT: Biosolids Moratorium

Attached please find for your approval a proposed 180-day moratorium on any new applications of biosolids to lands within the County.

In regular session on August 20, 2019, the Board of County Commissioners approved a motion to develop an ordinance banning any new applications of biosolids to lands within the County for 6 months, and directing staff to come back to the Board in six months for re-evaluation; authorized the Natural Resources Office to test for any contaminants of emerging concern, such as Perfluoroalkyl Substances (PFAS), pharmaceuticals, or any other chemical substances that may be of concern; approved beginning testing at Deer Park Ranch, with Billy Kempfer's permission, as soon as possible; and approved waiving legislative intent.

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State staff reviewed available data for potential sources of increasing phosphorus concentrations found at multiple water quality stations in the St Johns River including stations in Brevard County. This analysis identified land application of biosolids as the most likely source large enough to generate the increasing phosphorus concentrations encountered in the river. Using land use and other water quality monitoring data, the state concluded that land use changes, development, erosion, commercial fertilizer and septic were unlikely explanations for the observed changes in phosphorus concentrations. University of Florida scientists reviewing the state's analysis objected to the method used to discount the likelihood of commercial fertilizer being a significant factor or not. State analysis is still ongoing.

This summer, a toxin producing blue-green algae bloomed in Lake Washington, a primary drinking water supply for Brevard County. Based on the latest analyses of available data, the most likely contributors appear to be the land application of biosolids or commercial fertilizer. In the abundance of caution, the County Commission proposed a 6-month moratorium on biosolids and directed staff to conduct additional sampling and analysis and return with data in 6 months or less. The proposed 6-month moratorium is attached..

Attachment A – Draft Moratorium