



MEMORANDUM

To: Council Members

AGENDA ITEM 9

From: Staff

Date: October 18, 2019

Subject: Management Alternatives for Human Wastewater Biosolids – Presentation by Peter Janicki, CEO of Janicki Bioenergy and Joint Resolution TCSF #19-04

Introduction

One of the by-products or residuals of the wastewater treatment process is called biosolids, or the wet sludge that is left behind after initial processing, which is then collected for further treatment and processing. In Florida, biosolids are either land-applied as a soil amendment to improve agricultural productivity, or disposed of by incineration, deep well injection, or in landfills. It is an important source of water, energy, nitrogen, and phosphorous resources that some suggest could be recovered and used more efficiently. There is also concern statewide that excess nutrients from land application of human waste biosolids reach surface waters as a result of rainfall runoff and increase the occurrence of chronic harmful algal blooms (HABs). The purpose of this item and the attached resolution is to inform the Councils' member counties, municipalities, and their associations about this regional issue and potential solutions.

Peter Janicki, Founder and CEO of Janicki Bioenergy, will provide a presentation on new wastewater treatment technology. Mr. Janicki presented at Treasure Coast Regional Planning Council's Biosolids Symposium in June of 2018 and he will provide an update on development and deployment of his company's innovative technology for processing wastewater.

Background

Today, Florida's central sewer wastewater treatment facilities produce approximately 340,000 dry tons of biosolids. Approximately 100,000 dry tons of biosolids qualify as Class B biosolids, which are treated sewage sludge meeting U.S. Environmental Protection Agency (EPA) guidelines for land application as fertilizer with restrictions, and are allowed to have detectable levels of pathogens. Another 100,000 dry tons of biosolids are deposited in various landfills throughout the state. The final 140,000 dry tons of biosolids are further processed, dried, and typically composted with material from the landscape industry to produce approximately 200,000 tons of Class AA biosolids, which can then be distributed and marketed as fertilizer.

This class of biosolids is unregulated and land-applied mainly on pasture and, to a lesser extent, citrus lands.

Bahia grass pastures in Florida can generally produce satisfactorily without total Phosphorous (TP) fertilization, and every crop in Florida can be grown economically without the use of biosolids as fertilizer. Biosolids are an inefficient form of fertilization that provide only a fraction (less than 40%) of plant available nitrogen that can result in both total Nitrogen (TN) and TP over fertilization, which may negatively affect surface and other coastal waters. Of additional concern are compounds found in human wastewater biosolids which may include: hormones; steroids; bacteria; viruses; polychlorinated biphenyls (PCBs); pharmaceuticals; antibodies; polybrominated diphenyl ethers (PBDE fire retardants); polyfluoroalkyl substances (PFAS) like Teflon, polishes, waxes, paints, and household cleaning products; organics; metals; and artificial sweeteners. Although these materials are applied in a manner that may not be harmful to humans according to EPA guidelines, their accumulated secondary impacts are not entirely known.

Both Class B biosolids and Class AA biosolid fertilizers contain approximately 5.5 % TN and 2.2% TP. Therefore, land application of 300,000 dry tons of Class AA and Class B biosolids deposits over 33 million pounds of TN and 13.2 million pounds of TP on agricultural lands each year. Peer reviewed studies, such as those related to the Lake Okeechobee drainage basins, estimate that +/- 12% of both TN and TP imports will find their way to surface waters. This basin currently receives over 1,000 dry tons of TP from Class AA biosolids, which could amount to 120 dry tons or 240,000 pounds of TP to surface waters. Large areas within Florida such as the basins draining into Lake Okeechobee already contain enough legacy phosphorus to last for the next 25 to 60 years. While the practice of land-applying Class B biosolids was recently banned in the Lake Okeechobee, Caloosahatchee, St. Lucie River and Everglades watersheds, the St. Johns River Upper Basin watershed received nearly 74,000 tons of Class B biosolids in 2016, or approximately 74% of the Class B biosolids produced in Florida.

Analysis

Agricultural crops can be grown profitably without land applying this inefficient nutrient source. There are alternative disposition technologies that should be considered such as: pyrolysis, vapor recompression distillation, boiler technology electric generation, and supercritical water oxidation to improve recovery of resources and sustainable management of biosolids.

As announced during the Treasure Coast Regional Planning Council's (TCRPC) Biosolids Symposium in June of 2018, the Florida Department of Environmental Protection (DEP) formed a statewide Biosolids Technical Advisory Committee to: 1) establish a better scientific understanding of potential nutrient impacts of the land application of biosolids; and 2) evaluate current biosolids management practices and potential opportunities for enhancements to better protect Florida's water resources. After numerous meetings, including expert and public testimony, the Committee concluded that current regulations are not protecting the environment. The DEP started the rulemaking process, and the TCRPC and counties provided comment in August of 2019.

In addition, following the Symposium and last year's point TCRPC-SFRPC, most of the regional planning councils and numerous other organizations adopted resolutions similar to the enclosed Resolution TCSF #19-04 calling for the eventual elimination of land application of biosolids and funding for pilot projects using new advanced wastewater treatment technologies.

Conclusion

Florida's population continues to grow at historic rates. Today, southeast Florida's estimated 6.7 million people on public sewer generate about 280,000 dry tons of biosolids each year. In 30 or 40 years from now that total could increase by 50 percent. With this in mind, the region is encouraged to begin a serious conversation among local elected officials, utility directors, the agriculture industry, and others about what the future of biosolids management should look like in 30 years. Is it the same as we are doing now, or is it something completely different, using new technology to create more strategic, sustainable, and valuable reuse products? All of this starts with increasing awareness about the current status of: 1) how we manage biosolids in Florida; 2) our progress in meeting water quality goals established through approved Basin Management Action Plans and other measures; and 3) new technology aimed at improving biosolids resource recovery and water quality.

Recommendation

The South Florida and Treasure Coast regional planning councils should jointly adopt Resolution TCSF #19-04 and authorize its distribution to local government associations and relevant State agencies.

Joint Council Action – October 25, 2019

Attachments

1. Resolution TCSF #19-04
2. EPA Office of the Inspector General Audit 19-P-0002 "At a Glance" Concerning Sewage Sludge Regulations, dated November 15, 2018
3. Article "What Is Fueling Harmful Algal Blooms in the United States?" in Environment Coastal & Offshore Magazine, September/October 2019
4. Article "Biosolids Mix Human Waste with Toxic Chemicals, then Spread on Crops in the Guardian, October 5, 2019
5. Resolutions of Support for Alternative Technologies for Biosolids Processing

Peter Janicki



Founder & CEO, Janicki Industries
Founder & CEO, Janicki Bioenergy

EDUCATION

M.S. Mechanical Engineering, University of Washington
B.S. Civil Engineering, Notre Dame

PROFESSIONAL EXPERIENCE

As founder and CEO, Peter has led Janicki Industries in establishing itself as a global leader in composite tooling by fundamentally changing the industry approach to large-scale, precision-machined tooling and parts. His core belief is that with intelligence and drive, teams can solve seemingly impossible problems. With Janicki Bioenergy, Peter is taking his expertise in technology development to the sanitation and waste processing sectors—industries he feels have not been able to match the rate of innovation seen in other industries. This work has led to various appearances and awards in recent years. He holds a Master's degree in Mechanical Engineering and a Bachelor's degree in Civil Engineering.

ATTACHMENT 1



RESOLUTION TCSF #19-04

A JOINT RESOLUTION OF THE SOUTH FLORIDA AND TREASURE COAST REGIONAL PLANNING COUNCILS REPRESENTING THE LOCAL GOVERNMENTS OF MONROE, MIAMI-DADE, BROWARD, PALM BEACH, MARTIN, ST. LUCIE, AND INDIAN RIVER COUNTIES, FLORIDA; SUPPORTING COLLABORATION WITH STATEWIDE ORGANIZATIONS, STATE AGENCIES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA AND PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS; AND URGING THE GOVERNOR AND FLORIDA LEGISLATURE TO ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TREATMENT TECHNOLOGIES TO IMPROVE RECOVERY, PROVIDE MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS, AND REDUCE ENVIRONMENTAL IMPACTS

WHEREAS, the South Florida and Treasure Coast Regional Planning Council's seven county geographical area is comprised of Broward, Indian River, Martin, Miami-Dade, Monroe, Palm Beach, and St. Lucie counties and 122 municipalities, which contain over 6.7 million residents or nearly one-third of the State's population, responsible for generating over one-third of the State's gross domestic product; and

WHEREAS, the Councils are multi-purpose regional governmental entities with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, energy, regional health, natural resources, urban planning, and regional transportation; and

WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, the Councils wish to collaborate with the Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED THAT THE SOUTH FLORIDA AND TREASURE COAST REGIONAL PLANNING COUNCILS ENCOURAGE:

1. The State of Florida and its local governments to prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida to establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery, provide more efficient use of human wastewater biosolids resources, and reduce environmental impacts.

DULY ADOPTED by the South Florida and Treasure Coast Regional Planning Councils this 25th day of October, 2019.

Greg Ross
Chair, SFRPC

Susan Adams
Chair, TCRPC



U.S. Environmental Protection Agency
Office of Inspector General

19-P-0002
November 15, 2018

At a Glance

Why We Did This Review

We conducted this audit to determine whether the U.S. Environmental Protection Agency (EPA) has and implements controls over the land application of sewage sludge that are protective of human health and the environment.

Sewage sludge is the solid, semisolid or liquid residue generated during the treatment of domestic sewage. When sludge materials go through additional processing steps and treatment to meet EPA standards for land application, they are referred to as biosolids. Treatment is used to reduce the concentration of disease-causing organisms, called pathogens, and to reduce the attractiveness to mosquitoes, flies, fleas, rodents and birds, as well as other disease-carrying organisms. If the resulting product meets regulatory standards, the product can be used for agricultural and residential soil fertilization.

This report addresses the following:

- *Cleaning up and revitalizing land.*

Send all inquiries to our public affairs office at (202) 566-2391 or visit www.epa.gov/oig.

Listing of [OIG reports](#).

EPA Unable to Assess the Impact of Hundreds of Unregulated Pollutants in Land-Applied Biosolids on Human Health and the Environment

What We Found

The EPA's controls over the land application of sewage sludge (biosolids) were incomplete or had weaknesses and may not fully protect human health and the environment. The EPA consistently monitored biosolids for nine regulated pollutants. However, it lacked the data or risk assessment tools needed to make a determination on the safety of 352 pollutants found in biosolids. The EPA identified these pollutants in a variety of studies from 1989 through 2015. Our analysis determined that the 352 pollutants include 61 designated as acutely hazardous, hazardous or priority pollutants in other programs.

The EPA identified 352 pollutants in biosolids but cannot yet consider these pollutants for further regulation due to either a lack of data or risk assessment tools. Pollutants found in biosolids can include pharmaceuticals, steroids and flame retardants.

The Clean Water Act requires the EPA to review biosolids regulations at least every 2 years to identify additional toxic pollutants and promulgate regulations for such pollutants. Existing controls based on the Clean Water Act and the EPA's Biosolids Rule include testing for nine pollutants (all heavy metals), researching for additional pollutants that may need regulation, reducing pathogens and the attractiveness of biosolids to potential disease-carrying organisms, and conducting compliance monitoring activities. The EPA's risk communication regarding biosolids should also be transparent.

The EPA has reduced staff and resources in the biosolids program over time, creating barriers to addressing control weaknesses identified in the program. Past reviews showed that the EPA needed more information to fully examine the health effects and ecological impacts of land-applied biosolids. Although the EPA could obtain additional data to complete biosolids risk assessments, it is not required to do so. Without such data, the agency cannot determine whether biosolids pollutants with incomplete risk assessments are safe. The EPA's website, public documents and biosolids labels do not explain the full spectrum of pollutants in biosolids and the uncertainty regarding their safety. Consequently, the biosolids program is at risk of not achieving its goal to protect public health and the environment.

Recommendations and Planned Agency Corrective Actions

We recommend that the Office of Water address control weaknesses in biosolids research, information sharing with the public, pathogen control and training. Further, we recommend that the Office of Water and Office of Enforcement and Compliance Assurance improve the consistency of compliance monitoring and better record inspection data. The EPA provided acceptable corrective actions and milestone dates in response to eight of the 13 recommendations. Those recommendations are resolved with corrective actions pending. Five of the recommendations in this report (7, 9, 10, 11 and 13) are unresolved with resolution efforts underway.

ATTACHMENT 3

[http://digital.ecomagazine.com/publication/?i=620331&ver=html5&p=1#{"page":40,"issue_id":620331}](http://digital.ecomagazine.com/publication/?i=620331&ver=html5&p=1#{)



What is Fueling Harmful Algal Blooms in the United States?

By Gary N. Roderick, Environmental Consultant,
Former Environmental Administrator, S.E. District Florida Department of Environmental Protection
September/October 2019

Alongside climate change, the increasing amounts of nutrient pollution flowing into our coasts and lakes have meant that Harmful Algal Blooms (HABs) are now a national concern, problematic in all 50 U.S. states¹.

In 2017, the American Geophysical Union estimated that 54 percent of the human total phosphorus (TP) flowing into the world's surface waters comes from domestic human waste, with agriculture contributing 38 percent. In total these two human sources contribute an attention-grabbing 92 percent²; industrial sources adding the remaining eight percent.

Between 2003 and 2011, there was a 22 percent reduction in total nitrogen (TN), which includes both organic and inorganic, and a 33 percent reduction of TP purchased as manufactured fertilizer in Florida³. We don't yet know whether this reduction is from planted area attrition, greater use of biosolid fertilizers or from the implementation of agricultural Best Management Practices (BMPs).

Whatever the causes, it's unlikely to attain much more efficacy out of a voluntary agricultural BMP Program that grants "presumption of compliance" for water quality and is protected under Federal and State "Right to Farm Acts."

Disposing of Nutrient Sources

Our current disposal of domestic human waste is to incinerate, add to a landfill or apply the material onto our rural agricultural lands.

One thing is clear, the land application of biosolids must be substantially reduced or eliminated if we are ever going to reduce nutrient pollution in our surface waters.

Domestic human waste is normally “treated” by either onsite sewage disposal systems (OSDS) — also known as septic tanks — or the waste is collected into a central sewer system equipped with a wastewater treatment facility.

Properly operating domestic septic tank systems allow a small amount of TN to be discharged to surface waters, but failing septic systems can contribute problematic amounts. Fortunately, domestic areas serviced by septic tank systems normally do not contribute TP to surface waters as phosphorus is “attenuated” or immobilized within two to three feet below the septic tank drain field.

Central sewer systems are also problematic to surface waters. While wastewater treatment reduces some TN through a process called denitrification, the effluent leftover will still contain nitrogen (5-9 percent) and it does nothing to remove phosphorus (2-5 percent).

The conveyance systems for wastewater treatment also need to be maintained and periodically replaced to prevent failure and subsequent discharge. Across the nation, discharge from wastewater treatment facilities can flow into surface waters, especially in states like Florida which still permits some direct ocean discharge, primarily in some southeast coastal counties.

The effluents from wastewater treatment facilities that are not directly discharged are further processed and dewatered into two types of organic matter for use in agriculture, known as biosolids. Class B biosolids are regulated but can be further processed into Class AA (or as designated in some States, Class A) biosolids which are considered “fertilizer” and are unregulated by Federal or State Statute.

As of 2019, Florida is producing approximately 350,000 dry tons of biosolids a year. Virtually no biosolids are incinerated in Florida, but approximately 100,000 dry tons are disposed of in local county landfills. Another 110,000 dry tons are regulated and “land disposed” of as Class B biosolids.

The remaining 140,000 dry tons of Class B biosolids are further chemically treated, processed and composted with landscape material to produce approximately 200,000 dry tons of Class AA biosolids. These Class AA biosolids are marketed and distributed as fertilizer which, therefore, can be land applied without regulation as a normal agricultural practice.

While all crops can be grown profitably without using biosolids as a nutrient source, most of the biosolids are disposed on pasture because the agricultural industry avoids the use of human waste on crops being grown for human consumption.

From land to water

Over 310,000 dry tons a year of Class AA and Class B biosolids are land applied in Florida.

Using a conservative estimate of 5.5 percent for nitrogen and 2.2 percent phosphorus, this amounts to around 17,050 tons (34.1 M lbs) and 6,800 tons (13.6 M lbs) a year, respectively. If a conservative estimate of 12 percent of the nutrients is being discharged to surface waters from stormwater runoff⁴, this would result in at least 2,050 tons (4.1 M lbs) of nitrogen and 800 tons (1.6 M lbs) of phosphorus discharged to Florida surface waters.

A staggering figure when you consider the adopted value regulators use for water quality standards in Lake Okeechobee is 140 tons of TP (or 280,000 lbs) per year. Currently, the TP loading to Lake Okeechobee can vary from 400 tons to over 600 tons per year. A conservative estimated load at 400 tons would still require a reduction of 260 tons (520,000 lbs) of TP per year.

State agencies may claim that “biosolids” are no longer disposed on lands within the Lake Okeechobee drainage basins, according to the Lake Okeechobee and Northern Estuaries Protection Plan.

However, an estimated 55,000 dry tons of “unregulated” Class AA biosolid “fertilizer” is contributing over 1,200 tons of TP annually to the Lake Okeechobee watersheds⁵. If 12 percent of the TP ends up in rainfall-runoff, this could mean 144 tons (288,000 lbs) of phosphorus are contributing to the surface waters draining into Lake Okeechobee.

This is an unnecessary nutrient reduction burden on agriculture from urban sources that could be avoided without new regulation by implementing alternative technologies.

Adopting Alternatives

Alternative technologies to the land application of biosolids, including advanced gasification, pyrolysis, varcor processing, omni processing, supercritical water oxidation, and other nutrient resource recovery, are available today and afford better alternatives for nutrient management.



Omni Processor. Photo courtesy of Sedron Technologies.

If the Waste Water Treatment industry implemented alternatives, there would be several benefits including significant cost savings. The estimated cost for the utilities to land-applied biosolids is expensive, between \$50 to \$200 per dry ton⁶. Therefore, land applying 310,000 dry tons of biosolids taking an average cost of \$125 per dry ton would amount to \$38.8 million.

The cost of removing nutrients from surface waters using constructed stormwater treatment areas is approximately \$26 per lb. for TN and \$130 per lb. for TP⁷, so by removing the need, the State of Florida could save a total of \$315 million a year.

In November of 2018, the Inspector General of the U.S. Environmental Protection Agency indicated the agency (USEPA)⁸ lacked the data or risk assessment tools needed to decide on the safety of 352 pollutants found in biosolids, including 61 designated as acutely hazardous, hazardous or priority pollutants in other programs.

In an October 2017 report to the Governor and the General Assembly of Virginia, the following was stated about potential public harm from bacteria and viruses such as Hepatitis A from the land application of biosolids⁹:

"The most likely pathway of exposure for members of the public is through inhaling aerosolized contaminants during application of biosolids. Even the health risk from this pathway is low overall because certain conditions are needed for aerosolization to occur...".

As stated, the exposure level to human health from radicals such as Hepatitis A is low but, is any exposure level acceptable especially if alternatives exist that would eliminate the exposure threat?

In June of 2018, the Treasure Coast Regional Planning Council (TCRPC) held a "Regional Biosolids Symposium" which included talks by representatives of several alternative technologies to the land application of biosolids¹⁰.

<http://www.tcrpc.org/announcements/Biosolids/Summit.html>

Subsequently, nine of Florida's ten Regional Planning Councils representing 61 of 67 counties and their major municipalities have adopted a similar resolution that recommends:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of biosolids; and,
2. The State of Florida establish a Pilot Projects Program for supplemental funding of local utilities to implement new state of the art treatment technologies.

These recommendations contain two unusual traits: no new required regulation and nearly unanimous consensus.

While Florida's situation is immediate with devastating economic consequences, the chronic occurrence of HABs are not just a concern for this one State. With 92 percent of the human TP load coming from domestic human waste and agricultural sources, the citizens of Florida look to our elected officials, the legislature and the Governor to provide leadership on this issue and serve as a progressive example of innovation to the nation.

References:

1. US Environmental Protection Agency, Waters Assessed as Impaired due to NutrientRelated Causes, 2016, <https://www.epa.gov/nutrientpollution/harmful-algal-blooms>
<https://www.epa.gov/nutrient-policy-data/waters-assessed-impaired-due-nutrientrelated-cause>
2. Mesfin M. Mekonnen, Arjen Y. Hoekstra, Global Anthropogenic Phosphorus Loads to Freshwater and Associated Grey Water Footprints and Water Pollution Levels: A High-Resolution Global Study: GLOBAL ANTHROPOGENIC PHOSPHORUS LOADS, 2017, DOI:10.1002/2017wr020448, <https://pdfs.semanticscholar.org/4794/a984e5f4d1c2da3560f69f3030143818cca2.pdf?ga=2.192519726.561306995.15543847531207797451.1554384753>
3. US Environmental Protection Agency, Nutrient Policy Data, Commercial Fertilizer Purchased, <https://www.epa.gov/nutrient-policy-data/commercial-fertilizer-purchased>
4. Florida Audubon, Disposal of Sewage Sludge in the Lake Okeechobee Watershed Is Hurting Everglades Restoration, June 2009. <http://audubonoffloridaneews.org/wpcontent/uploads/2009/06/FINAL%20Residuals%20Report%20June%202009.pdf>
5. South Florida Water Management District, Nutrient Budget Analysis for the Lake Okeechobee Watershed, Final Comprehensive Report, September 2010
6. Maria Silveira, University of Florida, Utilization of Biosolids for Pasture Utilization, (Obreza 2006 personal communication) UF – IFAS, 2008

7. Mary Oakley, University of Florida Center for Landscape Conservation Planning, Prepared for the South Florida Water Management District, Interim Report for the Water Farming Demonstration Project Options Assessment and Opportunities Identification: For Nutrient Load Reduction and Surface Water Storage in the St. Lucie River Watershed, August 2016
8. US Environmental Protection Agency, Office of the Inspector General, At a Glance, EPA Unable to Assess the Impact of Hundreds of Unregulated Pollutants in Land-Applied Biosolids on Human Health and the Environment, November 2018, https://www.epa.gov/sites/production/files/2018-11/documents/_epaig_20181115-19-p-0002_glance.pdf
<https://www.epa.gov/officeinspector-general/report-epa-unable-assess-impact-hundreds-unregulated-pollutants-land>
9. Virginia General Assembly, Joint Legislative Audit Commission, Land Application of Biosolids and Industrial Residuals, 2017.
<http://jlarc.virginia.gov/2017-biosolids.asp>
10. Treasure Coast Regional Planning Council, Regional Biosolids Symposium, Indian River State College, Wolf High-Technology Center, June 8, 2018.
<http://www.tcrpc.org/announcements/Biosolids/Summit.html>

<https://www.theguardian.com/environment/2019/oct/05/biosolids-toxic-chemicals-pollution>

The Guardian

Biosolids: mix human waste with toxic chemicals, then spread on crops



▲ Dairy cows rest outside at Stoneridge Farm in Arundel, Maine, in August 2019. The farm was forced to shut down after sludge spread on the land was linked to high levels of PFAS in the milk. Photograph: Robert F Bukaty/AP

[Tom Perkins](#)

Sat 5 Oct 2019 02:00 EDT Last modified on Sat 5 Oct 2019 02:20 EDT

Residual sludge from treating waste water has been turned into a money-spinner but what are the costs to health of 'the most pollutant-rich manmade substance on Earth'?

Dairy cows rest outside at Stoneridge Farm in Arundel, Maine, in August 2019. The farm was forced to shut down after sludge spread on the land was linked to high levels of PFAS in the milk.

By some estimates, Americans send about 300m pounds of feces daily from the nation's toilets to wastewater treatment plants.

While the water is cleaned and discharged, the remaining toxic sewage sludge stays at the treatment plant, and it's what Sierra Club environmentalist Nancy Raine calls "the most pollutant-rich manmade substance on Earth".

This "biosolid" sludge is expensive to dispose of because it must be landfilled, but the waste management industry is increasingly using a money-making alternative – repackaging the sludge as fertilizer and injecting it into the nation's food chain. Now the practice is behind a growing number of public health problems. Spreading pollutant-filled biosolids on farmland is [making people sick](#), [contaminating drinking water](#) and [filling crops, livestock](#) and [humans](#) with everything from pharmaceuticals to PFAS.

As more biosolid-linked crises develop, some farmers and environmentalists are calling for a ban on the practice.

In 2019, about 60% of sewage sludge produced by treatment facilities will be spread on farmland and gardens, as well as schoolyards and lawns. Sludge holds nitrogen, phosphorus and other nutrients that help crops grow, so the waste management industry lightly treats it and sells it cheaply to farmers who view it as a cost-saving product.

But in fact the excrement from which sludge derives has mixed with any number of 80,000 manmade chemicals that are discharged from industry's pipes or otherwise pumped into the sewer system. By the time the mix lands in treatment plants, it can teem with pharmaceuticals, hormones, pathogens, bacteria, viruses, protozoa and parasitic worms, as well as heavy metals like lead, cadmium, arsenic or mercury. It often includes PCBs, PFAS, dioxins, BPAs and dozens of other harmful substances ranging from flame retardants to hospital waste.

"Spending billions of dollars to remove hazardous chemicals and biological wastes from water, only to spread them on soil everywhere we live, work and play defies common sense," said David Lewis, a former Environmental Protection Agency scientist who opposed spreading sludge on cropland in the mid-1990s as the agency approved the use.

Previously treatment facilities burned sludge or dumped it in the ocean, but the federal government barred the practices because doing so violated clean air rules or created marine dead zones. The EPA now insists spreading the same toxic substance on farmland is safe.

Raine questioned that conclusion, noting that there is very little regulation, very little testing and no knowing what's in each batch of sludge as compositions vary. In what biosolid testing the EPA has conducted, it identified more than 350 pollutants. That includes 61 it classifies "as acutely hazardous, hazardous or priority pollutants",

but the law requires only nine of those be removed. Moreover, the EPA and wastewater treatment plants don't test for or otherwise analyze most of the 80,000 manmade chemicals.

In a scathing [2018 report](#), the EPA office of inspector general noted the agency couldn't properly regulate biosolids, even if it sincerely tried, because "it lacked the data or risk assessment tools needed to make a determination on the safety of 352 pollutants found in biosolids".

Though regulators and industry don't know what's in biosolids, there's strong evidence that it can be dangerous.

A University of North Carolina [study](#) found 75% of people living near farms that spread biosolids experienced health issues like burning eyes, nausea, vomiting, boils and rashes, while others have contracted MRSA, a penicillin-resistant "superbug".

In South Carolina, sludge containing high levels of carcinogenic PCBs was [spread on cropland](#), and in Georgia sludge [killed cows](#). Biosolids are also thought to be partly [responsible for toxic algae blooms](#) in the Great Lakes and Florida, and biosolid treatment centers regularly [pollute the air](#) around them.

Meanwhile, sewage sludge is behind a widening PFAS crisis that has contaminated farms in Maine, [Michigan](#), Wisconsin, Alabama and Florida. PFAS, or "forever chemicals", are linked to a range of serious health problems like cancer, thyroid disorders, immune disorders and low birth weight. The chemicals are a product used to make non-stick or water-resistant products, and are found in everything from raincoats to dental floss to food packaging.

Maine's testing of 44 fields sprayed with biosolids earlier this year consistently [found alarming PFAS levels](#) in the ground, cows and [farmers' blood](#), which forced one dairy farm to shut down.

"They're [finding](#) kilograms of PFAS in sewage sludge when nanograms are harmful to humans, so you can't regulate it as a fertilizer," said Laura Orlando, a civil engineer who tracks problems with biosolids.

Still, state governments continue to allow biosolids to be spread on farmland or sold in compost. In Michigan, an environmental official [recently said](#) the state won't test for PFAS in milk because it doesn't want to put farmers out of business. A spokesperson for Michigan's department of environment, Great Lakes and energy did not respond to specific questions about biosolid use, but said the state had increased PFAS testing, and in 2017 it issued suggestions for biosolids applications.

However, the Sierra Club's Great Lakes manager, Christy McGillivray, noted that Michigan doesn't have PFAS standards, so "that makes it impossible to regulate". As of now, states aren't testing for most of the thousands of chemicals known to be in sludge beyond PFAS.

Biosolids are also creating tension in some rural communities as farmers who use it pollute watersheds, contaminate neighbors' wells or sicken neighbors.

Don Dickerson, a farmer with land in Michigan and Ohio, told the Guardian biosolid dust from an adjacent field had coated his home and crops in the substance. Paul Wolfarth, a resident of Riga Township, Michigan, said sludge was contaminating his well, and charged that biosolids from the state's cities were "turning Riga Township into a waste dump".

"When you put heavy metals, PFAS, plastics, pharmaceuticals and all that in the soil, sooner or later it gets toxic, and you can't wish that stuff away. You're ruining the topsoil forever," he said.

Though the government is reacting slowly or ignoring problems, companies like [Whole Foods](#), Dole, [Heinz and Del Monte](#) won't buy crops grown in biosolids, while [Switzerland](#), the Netherlands and other countries have banned it.

Still, the wastewater industry has strongly denied that health issues exist and regularly calls any contrary evidence anecdotal.

The Great Lakes water authority, which operates one of the nation's largest biosolid programs, declined interview requests from the Guardian. Despite sludge's chemical makeup, the wastewater industry bills biosolids as "green" and even [sells it](#) as organic fertilizer in stores like Walmart and Lowe's, though packaging doesn't indicate that it's composed of human and industrial waste.

The waste management industry treats sludge in several ways before labeling it fertilizer – air drying, pasteurization and composting are among common methods. Lime is employed to raise the pH level to eliminate odors, and about 95% of pathogens, viruses and other organisms are killed in the process.

But Raine stressed that none of the thousands of chemicals known to be in biosolids, or tens of thousands of manmade chemicals for which the government doesn't test, are removed.

"It has a technical song that sounds pretty good. However, nothing that is done to the sludge removes the chemicals," Raine said. "They just spend a little money on PR to convince us it's nice fertilizer and fail to mention all the other things that are in it."

Resolutions of Support for Alternative Technologies for Biosolids Processing

▪ Apalachee RPC	Resolution #18-12	dated 9-13-18
▪ Central Florida RPC	Resolution #2018-10A	dated 10-10-18
▪ East Central Florida RPC	Resolution #02-2018	dated 9-19-18
▪ North Central Florida RPC	Resolution #2018-22	dated 12-13-18
▪ Northeast Florida Regional Council	Resolution # 2018-13	dated 10-4-18
▪ South Florida & Treasure Coast RPCs	Resolution #TCSF 18-03	dated 10-12-18
▪ Treasure Coast RPC	Resolution #18-03	dated 7-20-18
▪ West Florida RPC	Resolution #2018-03	dated 9-25-18
▪ City of St. Augustine Commission	Resolution #2018-41	dated 9-24-18
▪ Clean Water Coalition of IRC		
▪ Friends of St. Sebastian River	Letter of Support	dated 9-14-18
▪ Indian River Lagoon Council	Resolution #2019-02	dated 2-8-19
▪ Indian River County BOCC	Resolution #2018-084	dated 9-11-18
▪ Martin County BOCC	Resolution #18-8.15	dated 8-23-18
▪ St. Lucie County BOCC	Resolution #18-148	dated 8-21-18

RESOLUTION #18-12

A RESOLUTION OF THE APALACHEE REGIONAL PLANNING COUNCIL SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the Apalachee Regional Planning Council's (ARPC) geographical area is comprised of Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty and Wakulla counties and the 28 municipalities contained therein; and

WHEREAS, the ARPC is a multi-purpose regional governmental entity with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, energy, regional health, natural resources and regional transportation, and


WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, the ARPC wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED THE APALACHEE REGIONAL PLANNING COUNCIL ENCOURAGES THAT:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

DULY ADOPTED by the Apalachee Regional Planning Council this 13th of September 2018.



Randy Merritt
Chair



Chris Rietow
Executive Director

RESOLUTION #2018-10A

A RESOLUTION OF THE CENTRAL FLORIDA REGIONAL PLANNING COUNCIL SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF AND SOLUTIONS FOR BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA

WHEREAS, the CFRPC coordinates with our local governments, with our state agencies, and with our statewide partners that mutually look for efficient solutions to mutual problems; and

WHEREAS, our programs include supporting water resource and infrastructure planning for local governments and natural resource planning for a variety of grants and initiatives: and

WHEREAS, the current and future biosolids management issues have potential impacts in the CFRPC region and impact our local governments; and


WHEREAS, the CFRPC wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to find mutually beneficial ways to mitigate these impacts.

NOW THEREFORE BE IT RESOLVED:

- The Central Florida Regional Planning Council will work with other RPCs and State partners to find solutions to biosolids management; and
- Support establishment of a voluntary Pilot Projects Program to fund local utilities to implement new state of the art wastewater treatment technologies to improve biosolids management.

DULY PASSED AND ADOPTED THIS 10TH DAY OF OCTOBER, 2018

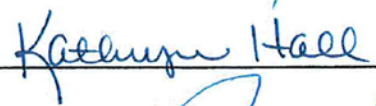
CENTRAL FLORIDA REGIONAL PLANNING COUNCIL

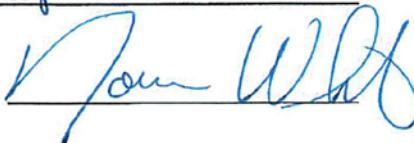


Mike Thompson, Chairman

ATTEST:

COUNCIL ATTORNEY:







East Central Florida Regional Planning Council

455 N. Garland Avenue, Orlando, FL 32801
Phone 407.245.0300 • Fax 407.245.0285 • www.ecfrpc.org

Hugh W. Harling, Jr. P.E.
Executive Director

Resolution #02-2018

ADOPTED AT A MEETING OF THE EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL

Support of Biosolids Applications and Technology

WHEREAS, I certify that I am Chair of the East Central Florida Regional Planning Council (ECFRPC) duly organized under the laws of the State of Florida.

WHEREAS, the following is a true and correct copy of a resolution duly adopted at a meeting of the ECFRPC on the 19th day of September 2018, at which a majority of voting members was present, constituting a quorum and notice of said meeting was given in accordance with the Bylaws; and

WHEREAS, the ECFRPC is a multi-purpose regional governmental entity with policy responsibility in the areas of planning, affordable housing, economic development, emergency preparedness, energy, regional health, natural resources and regional transportation; and

WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, the ECFRPC wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

Executive Committee

Chair
Leigh Matusick
Vice Mayor
Volusia County League
of Cities

Vice Chair
Jim Barfield
County Commissioner
Brevard County

Secretary
Garry Breeden
County Commissioner
Sumter County

Treasurer
John Lesman
Gubernatorial Appointee
Seminole County

Member at Large
Lee Constantine
County Commissioner
Seminole County

Serving Brevard, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia Counties

NOW, THEREFORE BE IT RESOLVED, that the East Central Florida Regional Planning Council encourages that:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

Adopted by the East Central Florida Regional Planning Council at a regular meeting, assembled in Orlando, Florida, on the nineteenth day of September 2018.

Attest:

**EAST CENTRAL FLORIDA
REGIONAL PLANNING COUNCIL**



Leigh Matusick
Chair, ECFRPC



Hugh W. Harling, Jr.
Executive Director

Executive Committee

Chair

Leigh Matusick
Vice Mayor
Volusia County League
of Cities

Vice Chair

Jim Barfield
County Commissioner
Brevard County

Secretary

Garry Breeden
County Commissioner
Sumter County

Treasurer

John Lesman
Gubernatorial Appointee
Seminole County

Member at Large

Lee Constantine
County Commissioner
Seminole County

Serving Brevard, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia Counties

RESOLUTION NO. 2018-22

A RESOLUTION OF THE NORTH CENTRAL FLORIDA REGIONAL PLANNING COUNCIL SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURAL AND CONSUMER SERVICES AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS AND ESTABLISH A PILOT PROJECT PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the geographic area of the North Central Florida Regional Planning Council is comprised of Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Madison, Suwannee, Taylor and Union Counties and the municipalities contained therein; and

WHEREAS, the North Central Florida Regional Planning Council is a multi-purpose regional government entity with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, natural resources and regional transportation; and

WHEREAS, it is time to work together as a region, and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, the North Central Florida Regional Planning Council wishes to collaborate with the Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agricultural and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED THE NORTH CENTRAL FLORIDA REGIONAL PLANNING COUNCIL ENCOURAGES THAT:


1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida establish a Pilot Project Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

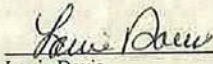
DULY ADOPTED this 13th day of December 2018.

Attest:

NORTH CENTRAL FLORIDA
REGIONAL PLANNING COUNCIL

SEAL


Scott R. Koons
Executive Director


Louie Davis
Chair

Resolution

Northeast Florida Regional Council

2018-13

SUPPORTING INCREASED AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA

WHEREAS, the Northeast Florida Regional Council's (NEFRC) geographical area is comprised of Baker, Clay, Duval, Flagler, Nassau, Putnam and St. Johns counties and the 26 Municipalities contained therein; and

WHEREAS, the NEFRC is a multi-purpose regional governmental entity with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, energy, regional health, natural resources and regional transportation, and

WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, the NEFRC wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED that the policy body of the Northeast Florida Regional Council encourages that:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

Unanimously adopted by the Northeast Florida Regional Council in a regular meeting assembled in the City of Jacksonville, on the fourth day of October, 2018.



Catherine Robinson

President

Brian D. Teeple

Chief Executive Officer



RESOLUTION TCSF #18-03

A RESOLUTION OF THE SOUTH FLORIDA AND TREASURE COAST REGIONAL PLANNING COUNCILS SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the South Florida and Treasure Coast Regional Planning Council's seven county geographical area is comprised of Broward, Indian River, Martin, Miami-Dade, Monroe, Palm Beach, and St. Lucie counties and 123 municipalities which contain 6.7 million residents or nearly one-third of the State's population, responsible for generating one-third of the State's gross domestic product; and

WHEREAS, the Councils are multi-purpose regional governmental entities with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, energy, regional health, natural resources and regional transportation; and

WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

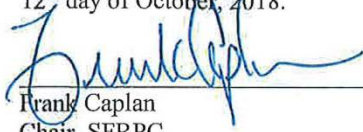
WHEREAS, the Councils wish to collaborate with the Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED THAT THE SOUTH FLORIDA AND TREASURE COAST REGIONAL PLANNING COUNCILS ENCOURAGE:


1. The State of Florida and its local governments to prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and

2. The State of Florida to establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

DULY ADOPTED by the South Florida and Treasure Coast Regional Planning Councils this 12th day of October, 2018.



Frank Caplan
Chair, SFRPC



Reece J. Parrish
Chair, TCRPC

RESOLUTION #18-03

A RESOLUTION OF THE TREASURE COAST REGIONAL PLANNING COUNCIL SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the Treasure Coast Regional Planning Council's (TCRPC) geographical area is comprised of Indian River, Martin, St. Lucie, and Palm Beach counties and the 52 Municipalities contained therein; and

WHEREAS, the TCRPC is a multi-purpose regional governmental entity with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, energy, regional health, natural resources and regional transportation, and

WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, the TCRPC wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

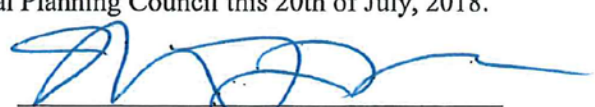
NOW, THEREFORE, BE IT RESOLVED THE TREASURE COAST REGIONAL PLANNING COUNCIL ENCOURAGES THAT:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

DULY ADOPTED by the Treasure Coast Regional Planning Council this 20th of July, 2018.



Reece J. Parrish
Chair



Michael J. Busha
Executive Director

RESOLUTION WFRPC 2018-03

A RESOLUTION OF THE WEST FLORIDA REGIONAL PLANNING COUNCIL SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the West Florida Regional Planning Council's (WFRPC) geographic area includes Escambia, Santa Rosa, Okaloosa, Walton, Washington and Holmes Counties; and Bay

WHEREAS, the WFRPC is a multi-purpose regional governmental entity with policy responsibility in the areas of affordable housing, economic development, and emergency preparedness, as well as land-use, environmental, and transportation planning; and

WHEREAS, it is time to work together as a region and as a state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

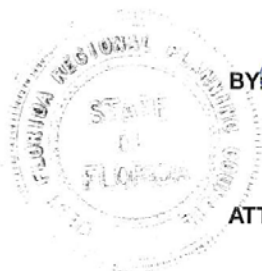
WHEREAS, the WFRPC wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida;

NOW, THEREFORE, BE IT RESOLVED by the West Florida Regional Planning Council encourages that:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and
2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

Duly passed and adopted by the West Florida Regional Planning Council on this 25th day of 2018.

WEST FLORIDA REGIONAL PLANNING COUNCIL



BY: Kasey Cuchens
Kasey Cuchens, Chair

ATTEST: Austin Mount
Austin Mount, Executive Director



RESOLUTION 2018-41

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF ST. AUGUSTINE SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND SUPPORTING THE ESTABLISHMENT OF A STATE PILOT PROJECT PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS.

WHEREAS, Florida's population continues to grow at historic rates resulting in increasing impacts on wastewater treatment processing and biosolid disposal; and

WHEREAS, The City of St. Augustine's wastewater collection system is composed of 79.3 miles of gravity sewer conveyance system, 60.7 miles of forcemains, 75 lift stations and 2,100 manholes, which produces approximately 3,395 tons of biosolids annually; and

WHEREAS, it is time to work together to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, The City Commission of the City of St. Augustine wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

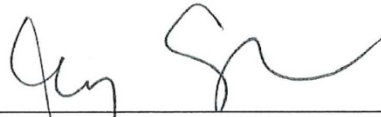
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ST. AUGUSTINE, FLORIDA:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and

2. The City Commission of the City of St. Augustine supports the State of Florida's efforts to establish a Pilot Project Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.


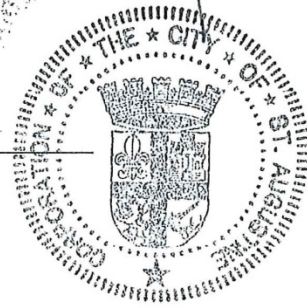
ADOPTED in Regular Session of the City Commission of the City of St. Augustine, Florida on this 24TH day of September, 2018.

CITY OF ST. AUGUSTINE, FLORIDA



Nancy E. Shaver, Mayor/Commissioner

Attest:


Darlene Galambos, City Clerk

**Resolution
Clean Water Coalition of Indian River County**

TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, The Clean Water Coalition of Indian River County (“CWC”) is dedicated to the protection and restoration of waters within Indian River County, Florida, through advocacy, education, conservation, and restoration by CWC members in collaboration with private and government entities;

WHEREAS, there are four Biosolid Site Permits from the SE District of Florida Department of Environmental Protection for four properties located in Indian River County.

WHEREAS, the 2013 FDEP Summary, indicates that Indian River County received 12,472 Dry Tons of Biosolids in 2013;

WHEREAS, Indian River County manages its own biosolids by collecting, dewatering and landfilling without land application;

WHEREAS, Indian River County contains Blue Cypress Lake which has suffered from a Harmful Algal Bloom (HAB) “Microcystis” and is located adjacent to a permitted Biosolid Site;

WHEREAS, it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices and explore new wastewater treatment technologies to improve biosolids resource recovery and management options;

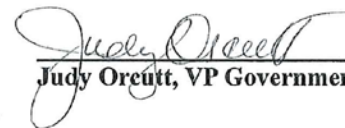
WHEREAS, the CWC wishes to support the efforts of the Treasure Coast Regional Planning Council and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE BE IT RESOLVED that the board of the Clean Water Coalition of Indian River County urges that:

- 1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and**
- 2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies that improve recovery and use of human wastewater biosolids and water resources - with minimal adverse environmental impacts.**



Paul Fafalita, President



Judy Orcutt, VP Governmental Affairs



Friends of St. Sebastian River

P. O. Box 284 • Roseland, Florida 32957
www.fssr.org – info@fssr.org

RECEIVED

SEP 17 2018

TREASURE COAST
REGIONAL PLANNING COUNCIL

Officers

September 14, 2018

Tim Glover
President

Michael J. Busha
Executive Director
Treasure Coast Regional Planning Council
421 SW Camden Avenue
Stuart, Florida 34994

Buzz Herrmann
Vice President

Re: June 20, 2018 Treasure Coast Regional Planning Council Resolution on the Land Application of Biosolids

Bill Brennan
Treasurer

Dear Mr. Busha,

Mark Bondy
Secretary

Please accept this letter of support from the Friends of St. Sebastian River for the Council's recent July 20, 2018 unanimous vote on Resolution # 18-03 that requested:

Directors

Tom Bauer
Judy Grabenbauer
Lee Ann Kluepfel
Jane Schnee
Bob Stephen
Lynn Stieglitz
Bruce Zingman

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and

2. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

Florida surface waters are experiencing historic degradation from nutrients specifically nitrogen and phosphorus that are chronically creating Harmful Algal Blooms throughout the entire State of Florida.

Studies have indicated Bahia grass pastures in Florida can generally produce satisfactorily without total phosphorous (TP) fertilization, and every crop in Florida can be grown economically without the use of biosolids as fertilizer. Of additional concern are compounds found in human wastewater biosolids which may include: hormones; steroids; bacteria; viruses; polychlorinated biphenyls (PCBs); pharmaceuticals; antibodies; polybrominated diphenyl ethers (PBDE fire retardants); polyfluoroalkyl substances (PFAS) like Teflon, polishes, waxes, paints, and household cleaning products; organics; metals; and artificial sweeteners.

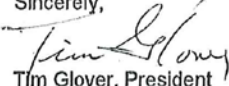
Founding Member

Frank DeJoia
1924-2017

The Friends of St. Sebastian River encourages all local governments to adopt similar resolutions on biosolids and forward them to the Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services and the Governor of the State of Florida. It is time for Florida to look for alternative disposal methods and reuse for the nutrient laden effluent waste generated from our urban central sewer wastewater treatment facilities.

Director Emeritus

Frank Wegel

Sincerely,

Tim Glover, President
Friends of St. Sebastian River

The mission of the Friends of St. Sebastian River is to maintain and improve the health and beauty of the St. Sebastian River and its watershed.

IRL COUNCIL RESOLUTION 2019-02

A RESOLUTION OF THE IRL COUNCIL, A SPECIAL DISTRICT OF THE STATE OF FLORIDA AND INDIAN RIVER LAGOON NATIONAL ESTUARY PROGRAM SUPPORTING REDUCTION OF NUTRIENTS AND OTHER POLLUTANTS THAT ENTER FLORIDA SURFACE AND GROUND WATERS FROM THE HUMAN WASTEWATER STREAM

WHEREAS, the IRL COUNCIL, an Independent Special District of the State of Florida, serves as the host agency for the Indian River Lagoon National Estuary Program (IRLNEP); and

WHEREAS, the IRLNEP is a non-regulatory program, authorized by the U.S. Congress within Section 320 of the Clean Water Act, to convene a Management Conference with the following purposes:

- a) Assess trends in water quality, natural resources, and uses of the estuary; Collect, characterize, and assess data on toxics, nutrients, and natural resources to identify the causes of environmental problems;
- b) Develop the relationship between the in-place loads and point and nonpoint loadings of pollutants to the estuarine zone and the potential uses of the zone, water quality, and natural resources;
- c) Develop a Comprehensive Conservation and Management Plan (CCMP) that recommends priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the estuary, including restoration and maintenance of water quality, a balanced indigenous population of shellfish, fish and wildlife, and recreational activities in the estuary, and assure that the designated uses of the estuary are protected;
- d) Develop plans for the coordinated implementation of the CCMP by local, state and federal partners participating in the Management Conference;
- e) Monitor the effectiveness of actions taken pursuant to the CCMP; and
- f) Review all Federal financial assistance and development projects to determine whether such assistance program or projects are consistent with and further the purposes and objectives of the CCMP; and

WHEREAS, the final draft of the IRLNEP CCMP- "*Looking Ahead to 2030*" was submitted to the U.S. EPA for certification in December 2018. Adoption by the IRL Council is anticipated in 2019; and

WHEREAS, the revised IRLNEP CCMP addresses direct and indirect contributions of nutrient and other pollutants to surface and ground waters from all wastewater sources including wastewater treatment plants, onsite sewage treatment and disposal systems (septic systems), biosolids and reclaimed water; and

WHEREAS, the IRLNEP CCMP Wastewater-1 Action Recommendation calls for compliance with the intent of the Indian River Lagoon Act (Chapter 90-262, Laws of Florida) that prohibited direct discharge of nutrients and pollutants from the human waste stream; and

WHEREAS, Florida's projected human population growth and future economic vitality require local, regional and state partners to examine potential water quality impacts from current practices, and explore new wastewater treatment technologies to improve biosolids and reclaimed water resource recovery and management options from Florida's wastewater systems; and

WHEREAS, the IRL COUNCIL and IRLNEP wish to collaborate with the Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, Florida Department of Health and other state and local partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED THAT THE IRL COUNCIL and IRLNEP WILL WORK WITH OUR STATE AND LOCAL PARTNERS TO SUPPORT THE FOLLOWING ACTIONS:

- 1. Focus on sustainable nutrient management strategies (including consideration of water quality goals to guide biosolid application and reclaimed water use) with the ultimate goal to reduce and eliminate negative impacts to the quality of surface and ground waters.**
- 2. Support state funding of an innovative pilot projects cost-share program for local communities and utilities to evaluate and implement new state-of-the-art wastewater treatment technologies that improve nutrient and pollutant recovery and deliver more efficient, effective and sustainable beneficial uses of human wastewater biosolids and reclaimed water resources.**

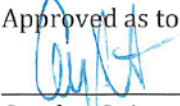
DONE at New Smyrna Beach, Florida, this 8th day of February, 2019.

By: 
Deb Denys, Chair IRL Council

ATTEST:


Stacey Hetherington, Secretary IRL Council

Approved as to legal form and sufficiency:


Carolyn S. Ansay
IRL Council, Legal Counsel

RESOLUTION 2018-084

A TRUE COPY
CERTIFICATION ON LAST PAGE
J.R. SMITH, CLERK

A RESOLUTION OF THE INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS SUPPORTING COLLABORATION WITH THE TREASURE COAST REGIONAL PLANNING COUNCIL, FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZING THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISHING A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the Treasure Coast Regional Planning Council's (TCRPC) geographical area is comprised of Indian River, Martin, St. Lucie, and Palm Beach counties and the 52 Municipalities contained therein; and

WHEREAS, the TCRPC is a multi-purpose regional governmental entity with policy responsibility in the areas of affordable housing, economic development, emergency preparedness, energy, regional health, natural resources and regional transportation, and

WHEREAS, the TCRPC adopted Resolution 18-03, which encourages 1) the State of Florida and its local governments to prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and 2) the State of Florida to establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources; and

WHEREAS, the Indian River County Board of County Commissioners supports the TCRPC with respect to the land application of human wastewater biosolids; and

WHEREAS, the Indian River County Board of County Commissioners wishes to collaborate with the TCRPC, Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY, FLORIDA THAT:

1. The Indian River County Board of County Commissioners encourages the State of Florida and other local governments to prioritize the reduction and eventual elimination of the land application of human wastewater biosolids; and

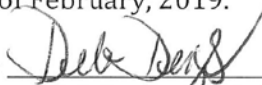
WHEREAS, Florida's projected human population growth and future economic vitality require local, regional and state partners to examine potential water quality impacts from current practices, and explore new wastewater treatment technologies to improve biosolids and reclaimed water resource recovery and management options from Florida's wastewater systems; and

WHEREAS, the IRL COUNCIL and IRLNEP wish to collaborate with the Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, Florida Department of Health and other state and local partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED THAT THE IRL COUNCIL and IRLNEP WILL WORK WITH OUR STATE AND LOCAL PARTNERS TO SUPPORT THE FOLLOWING ACTIONS:

- 1. Focus on sustainable nutrient management strategies (including consideration of water quality goals to guide biosolid application and reclaimed water use) with the ultimate goal to reduce and eliminate negative impacts to the quality of surface and ground waters.**
- 2. Support state funding of an innovative pilot projects cost-share program for local communities and utilities to evaluate and implement new state-of-the-art wastewater treatment technologies that improve nutrient and pollutant recovery and deliver more efficient, effective and sustainable beneficial uses of human wastewater biosolids and reclaimed water resources.**


DONE at New Smyrna Beach, Florida, this 8th day of February, 2019.

By: 
Deb Denys, Chair IRL Council

ATTEST:


Stacey Hetherington, Secretary IRL Council

Approved as to legal form and sufficiency:



Carolyn S. Ansay
IRL Council, Legal Counsel

BEFORE THE BOARD OF COUNTY COMMISSIONERS
MARTIN COUNTY, FLORIDA

RESOLUTION NO. 18-8.15

A RESOLUTION OF THE MARTIN COUNTY BOARD OF COUNTY COMMISSIONERS SUPPORTING COLLABORATION WITH THE FLORIDA REGIONAL COUNCILS ASSOCIATION, FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, ALL FLORIDA COUNTIES AND MUNICIPALITIES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, IMMEDIATELY IDENTIFY ALL NON-RESIDENTIAL LAND APPLICATION LOCATIONS OF ALL CLASSIFICATIONS OF BIOSOLIDS, TRACK QUARTERLY VOLUMES APPLIED AT EACH NON-RESIDENTIAL LAND APPLICATION, MONITOR OFFSITE NUTRIENT RUNOFF FROM THE IDENTIFIED BIOSOLID LAND APPLICATION LOCATIONS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, on August 14, 2018, the Martin County Board of County Commissioners (Martin County) unanimously voted to support the Treasure Coast Regional Planning Council's Resolution No. 18-03 regarding biosolids management issues in Florida; and

WHEREAS, Martin County recognizes it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options; and

WHEREAS, this Resolution will use the U.S. Environmental Protection Agency's definition of biosolids, which is as follows: "nutrient-rich organic materials resulting from the treatment of domestic sewage in a treatment facility...that can be recycled and applied as fertilizer..."; and

WHEREAS, Martin County wishes to collaborate with Florida Regional Councils Association, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, all Florida counties and municipalities and other partners to accomplish these objectives and rethink 21st Century human waste and biosolid management practices in Florida.

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MARTIN COUNTY, FLORIDA, THAT:

1. The State of Florida and its local governments prioritize the reduction and eventual elimination of the land application of biosolids.
2. The State of Florida immediately establish standard protocols and fund the identification, quarterly tracking and monitoring of non-residential biosolid application.
3. The State of Florida establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of biosolids resources.

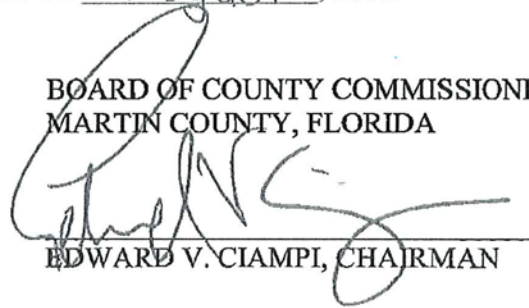
DULY PASSED AND ADOPTED this 23 DAY OF August, 2018.

ATTEST:



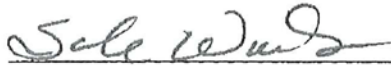
CAROLYN TIMMANN, CLERK OF THE
CIRCUIT COURT AND COMPTROLLER

BOARD OF COUNTY COMMISSIONERS
MARTIN COUNTY, FLORIDA



EDWARD V. CIAMPI, CHAIRMAN

APPROVED AS TO FORM & LEGAL
SUFFICIENCY:



SARAH WOODS, COUNTY ATTORNEY

RESOLUTION NO. 18-148

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF ST. LUCIE COUNTY, FLORIDA, SUPPORTING THE COLLABORATION WITH FLORIDA ASSOCIATION OF COUNTIES, FLORIDA LEAGUE OF CITIES, FLORIDA SMALL COUNTY COALITION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND OTHER PARTNERS TO INCREASE AWARENESS OF BIOSOLIDS MANAGEMENT ISSUES IN FLORIDA, PRIORITIZE THE REDUCTION AND EVENTUAL ELIMINATION OF THE LAND APPLICATION OF HUMAN WASTEWATER BIOSOLIDS, AND ESTABLISH A PILOT PROJECTS PROGRAM FOR FUNDING NEW STATE OF THE ART WASTEWATER TECHNOLOGIES TO IMPROVE RECOVERY AND AFFORD MORE EFFICIENT USE OF HUMAN WASTEWATER BIOSOLIDS

WHEREAS, the Board of County Commissioners has made the following determinations:

1. The Treasure Coast Regional Planning Council's (TCRPC) geographical area is comprised of Indian River, Martin, St. Lucie, and Palm Beach counties and the 52 Municipalities contained therein.
2. On July 20, 2018, the TCRPC adopted Resolution No. 18-003 pertaining to biosolids management issues in Florida.
3. The Board agrees with TCRPC that it is time to work together as a region and state to increase awareness of current and future biosolids management issues, examine potential water quality impacts from our current practices, and explore new wastewater treatment technologies to improve biosolids resource recovery and management options.
4. The Board wishes to collaborate with the TCRPC, Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to accomplish these objectives and rethink 21st Century human wastewater management practices for Florida.

NOW, THEREFORE, BE IT RESOLVED by the St. Lucie County Board of County Commissioners:

1. This Board does hereby encourage the State of Florida and its local governments to prioritize the reduction and eventual elimination of the land application of human wastewater biosolids.
2. The Board further encourages the State of Florida to establish a Pilot Projects Program for funding local utilities to implement new state of the art wastewater treatment technologies to improve recovery and afford more efficient use of human wastewater biosolids resources.

3. This Resolution shall become effective immediately upon adoption.
4. The County Administrator is directed to send a copy of this resolution to the County's state and federal legislative delegation and to the partners identified in this Resolution.

After motion and second, the vote on this resolution was as follows:

Commissioner Frannie Hutchinson, Chair	AYE
Commissioner Linda Bartz, Vice Chair	AYE
Commissioner Chris Dzadovsky	AYE
Commissioner Anthony Bonna	AYE
Commissioner Cathy Townsend	AYE

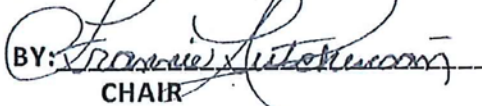
PASSED AND DULY ADOPTED this 21st day of August 2018.

ATTEST:


 DEPUTY CLERK



**BOARD OF COUNTY COMMISSIONERS
 ST. LUCIE COUNTY, FLORIDA**

BY: 
 CHAIR

APPROVED AS TO LEGAL FORM


 COUNTY ATTORNEY