



## INDIAN RIVER COUNTY, FLORIDA DEPARTMENT OF UTILITY SERVICES

**Date:** October 7, 2018  
**To:** Jason E. Brown, County Administrator  
**From:** Vincent Burke, P.E., Director of Utility Services  
**Subject:** Blue Cypress Lake Informational Update

**BACKGROUND/ ANALYSIS:**

On July 17, 2018, the Indian River County (IRC) Board of County Commissioners (BCC) unanimously approved a six-month moratorium on the land application of Class B biosolids in the unincorporated area of the County. The moratorium is set to expire on January 19, 2019. Prior to that date, County staff had been asked to work with the regulatory agencies to investigate the causes of the increased nutrient levels in and around the Blue Cypress Lake (BCL) watershed area and to determine the origin of said levels.

The purpose of the agenda item is to provide the BCC an update regarding the progress since the July 17th Public meeting and moratorium approval.

| Date            | Description  |
|-----------------|--|
| June 26, 2018   | Indian River County Department of Utility Services (IRCDUS) provided the BCC a BCL Testing Update as a Department Item during the BCC Meeting.   |
| July 17, 2018   | Six-month temporary moratorium on the land application of Class B biosolids in unincorporated IRC. Ordinance 2018-016.   |
| July 19, 2018   | Staff requested data from the Florida Department of Environmental Protection (FDEP) and the St. Johns River Water Management District (SJRWMD).  |
| July 20 2018    | Treasure Coast Regional Planning Council (TCRPC) discusses Management Alternatives for Human Wastewater Biosolids & Resolution. Resolution 18-003 adopted.   |
| July 27, 2018   | IRC contracts with Jones Edmunds & Associates to assist with BCL Water Quality Study.  |
| August 02, 2018 | Fellsmere adopts six-month Class B biosolids land application moratorium. Ordinance 2018-06.   |
| August 08, 2018 | Conference call: IRC, Consultant team - Jones Edmunds & Associates with Janicki Environmental (JE team), FDEP, SJRWMD. Discuss issues and upcoming monitoring plan.  |
| August 17, 2018 | JE team representatives met with SJRWMD staff at SJRWMD HQ to discuss past biosolids analyses and available data.  |
| August 21, 2018 | St. Lucie County unanimously adopts Resolution 18-148 to increase collaboration with surrounding communities and regulatory agencies to prioritize the reduction and eventual elimination of land application of human wastewater biosolids. |
| August 28, 2018 | Second conference call: IRC, JE Team, FDEP, SJRWMD.  |

| Date               | Description  |
|--------------------|--|
| September 05, 2018 | 1 <sup>st</sup> Biosolids Technical Advisory Committee (TAC) meeting in Orlando attended by IRC and JE Team.   |
| September 14, 2018 | Site visit to BCL and IRCDUS BCL Wastewater Treatment Plant (WWTP) by IRCDUS staff and JE team. Discussion on approach to quantifying phosphorus load increases to account for current upward trend. Quantification to be completed with currently available data. |
| September 17, 2018 | Compiled spatial and tabular biosolids data available from SJRWMD for review/use.  |
| September 19, 2018 | JE Team provided to IRC trend analysis for Blue Cypress Lake water quality.  |
| September 18, 2018 | At the 09/11/2018 BCC meeting, BCC voted to adopt the resolution, similar to the TCRPC addressing biosolids and biosolids applications. IRC Resolution 2018-084 was adopted September 18, 2018.  |
| September 25, 2018 | Received DRAFT UFL/IFAS Ranch Soil and Grass Tissue Sampling Plan.   |
| October 03, 2018   | Draft Regulatory Agency Sampling Plan/Model.   |
| October 04, 2018   | JE Team reviews draft water and nutrient budgets available from draft SJRWMD HSPF model with SJRWMD staff.   |
| October 09, 2018   | 2 <sup>nd</sup> TAC meeting scheduled - canceled due to Hurricane Michael.   |
| October 12, 2018   | TCRPC presents Joint Resolution of Support on "Management Alternatives for Human Wastewater Biosolids" at Joint Meeting of the Treasure Coast and South Florida Regional Planning Councils.  |
| November 2018      | JE Team to provide draft estimates on phosphorus load increases and causative factors to IRC.  |

Long term Phosphorus Analysis to be conducted by UF/IFAS indicates a tentative schedule as follows:

| Task  | 2018 |     |     | 2019 |     |     |     |     |     |     |     |     |
|---|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
|   | Oct  | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Detailed Project Plan, Selection of Sites, Landowner Contacts |      |     |     |      |     |     |     |     |     |     |     |     |
| Field Data Collection   |      |     |     |      |     |     |     |     |     |     |     |     |
| Analysis, Modeling, and Interpretation                        |      |     |     |      |     |     |     |     |     |     |     |     |
| Final Report, Presentations and Recommendations               |      |     |     |      |     |     |     |     |     |     |     |     |

Based on what IRC staff recently learned, it appears that there have been some delays encountered by regulatory oversight agencies to coordinate available resources, solidify contractual obligations, and to determine the best course of action regarding the BCL watershed assessment. Since the BCC-approved moratorium was implemented, some progress has been made by the agencies to include:

- Autosampler equipment has been installed.
- UF/IFAS draft sampling soil and grass analysis work detailed.
- SJRWMD entered a contract with firm to perform tracer analyses.
- Specific locations identified for groundwater and surface water sampling.
- Surface water quality monitoring network locations are set, though a few more details need to be finalized, such as the frequency, constituent lists, access and coordinates.

- General locations for soil water sampling are set, though field recon will be necessary to identify the exact locations and numbers of sites.
- Investigations will entail assessing the budget and fate of biosolids Phosphorous for ranchlands in the Upper St. Johns watershed.
- Hydrologic Simulation Program Fortran (HSPF) Model data added to data available to IRC.

Understanding the BCL watershed water quality issue is complex and deals with variety of factors. The regulatory agencies are pulling resources to implement the best course of action for the investigation. There is willingness from the property owner to allow access to certain locations on private property for this investigation.

However, it must be noted that 78+ calendar days have transpired during this planning process. Given that staff must come back to the BCC in late November or December 2018, only two months remain in which to formulate a recommendation to the BCC based on currently-available and limited-new data. Based on the draft sampling plan created by SJRWMD, it is unlikely that robust results will come back in this remaining two-month window but more likely in the mid to late part of 2019. Staff will be relying on historical data to present for BCC review until such time as the updated information is obtained. The FDEP-created Technical Advisory Committee (TAC) has postponed the October 9, 2018 meeting (TAC meeting #2) due to Hurricane Michael. An excerpt from an email blast states:

*To allow the opportunity for TAC stakeholders, TAC members and DEP staff to prepare for Tropical Storm Michael, the second Biosolids TAC meeting scheduled for Tuesday, October 9, 2018, in Orlando is cancelled. The safety of you and your family is our top priority, and we want to ensure that all interested participants are able to join this meeting in person or via webinar, without taking away from important focus on storm preparedness. We remain focused on the goals of the TAC and the overall timing of TAC recommendations; therefore, this meeting will be rescheduled as soon as possible following the storm event. The meeting schedule will be adjusted to continue to ensure TAC recommendations are in place by February 2019, in advance of 2019 Legislative Session*

Staff does not recommend trying to formulate an additional sampling plan outside of the regulatory agency process. This effort may be duplicative and the County may not have the same level of access to private property as has been granted to the SJRWMD and FDEP for this investigation. Rather, staff will continue to work with our consultant and the regulatory agencies to collect any and all data, and to bring to the BCC Water Quality Study findings before the end of Calendar Year (CY) 2018.

#### **RECOMMENDATION:**

Staff recommends that the Board of County Commissioners (BCC) direct staff to continue coordination with the regulatory agencies, not duplicate sampling efforts, and bring any and all available Blue Cypress Lake data and Water Quality Study findings back to the BCC in December 2018.

#### **ATTACHMENTS:**

1. Pounds of Total Phosphorus from Class B Biosolids Application on Ranches around Blue Cypress Lake
2. Class B Biosolids Land Application Sites around Blue Cypress Lake