



Board of County Commissioners
Public Works Department
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August 31, 2021

Stacy Cecil
Environmental Consultant
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
via e-mail: Stacy.Cecil@FloridaDEP.gov

RE: FDEP Task 2 Data-Dependent SWIL Model Update Data Request

Dear Stacy,

Indian River County is submitting the items identified below in support of Florida Department of Environmental Protection's (FDEP) Task 2 Data Dependent SWIL Model Update data request. These supporting files have been placed on FDEP's FTP site in accordance with submittal requests.

- Well coordinates for active groundwater monitoring wells associated with the County's Reuse Water program are being submitted. Although these wells had not been routinely sampled for Total Nitrogen (TN) and Total Phosphorus (TP) as the analytes of interest under the reclaimed water quality monitoring program, the County has recently been collecting TN and TP data in support of the SWIL Model enhancement update. Results for these sampling events are included in the submittal. Should the Department determine that historical Nitrates from these wells be of interest, a summary of that data can be compiled from the Quarterly Monitoring reports submitted in support of the County's Reclaim Water Program under permit numbers: FL0041637, FLA010435, and FLA010431.
- Well coordinates for FDEP installed surficial groundwater wells are included in this submittal. These wells were installed by the FDEP as part of their efforts to use the ArcNLET model for loadings to the South Relief Canal within the County, as well as a later effort to determine septic tank contributions to the St. Sebastian River. In addition to the coordinates, well depths are included where available, as well as results from the 2015 and 2016 sampling events. Well drilling logs for 10 of the wells installed in the southern part of the County is also included for additional soil data.
- Indian River County has been collecting weekly water quality samples from the 3 stormwater drainage canals that together account for a majority of the water reaching the Indian River Lagoon. These 3 canals represent drainage from more than 50,000 acres

within Indian River County with discharge flows recorded at the USGS monitoring stations within the canals. Seasonal fluctuations exist in the recorded flows, with higher flows during the rainy season reflecting stormwater run-off, while the lower flows during the dry season reflect more of the groundwater contributions to the canals. It is during this drier season that the concentrations of Nitrogen and Phosphorus found in the canals appears to represent groundwater concentrations of Nitrogen and Phosphorus, along with flow values. Flows in the canals are not included in this data set, as they are readily available via the USGS database (<https://waterdata.usgs.gov/fl/nwis>). GPS Coordinates for the County's sampling points are included in the spreadsheet.

County staff are aware of additional monitoring that takes place within the stormwater drainage canals in support of various permits such as from the St. Johns River Water Management District and Florida Department of Environmental Protection. We feel including this data in the SWIL Model enhancement effort would be beneficial, but as that data is readily available, we did not include it in this submittal.

- The County recently began collecting data at 2 locations within the St. Sebastian River for Nitrogen and Phosphorus. Although the data doesn't meet the timeframe requirements for inclusion in the SWIL Model enhancement project, the County feels that the weekly concentrations in the River are pertinent to the loadings to the Lagoon and will continue to collect the data. GPS Coordinates for the County's sampling points are included in the spreadsheet.
- The County's Reuse Water Service area network is included in this submittal. Although significant users (in excess of 100,000 gallons per day) are identified in the Utility Department's Domestic Wastewater Treatment Facility (WWTF) permits, the attached GIS file represents the pressurized and non-pressurized reclaimed water network within the County. Please note that in certain areas where Utility infrastructure exists for customers to use reclaimed water, the entities may have elected to not connect to that service. The Monthly Discharge Monitoring Reports (DMRs) filed under WWTF permits FL0041637, FLA010435, and FLA010431 should be used to determine volumes of reclaimed water delivered to each site. GPS Coordinates of the County's reuse water storage as reported in compliance with rules 62-610.464, 62-610.830 and 62-610.870 FAC is also included in the County's submittal.
- Under the subsurface flow model update element, the County is submitting a spreadsheet reflecting the historical Nitrogen and Phosphorus concentrations associated with the Utility Department's Reuse water program, along with volumes of the treated effluent. As stated above, the monthly DMRs filed under the respective WWTF can be used to determine the recipient of the reclaim water flow. Please also note that routine monitoring associated with reclaimed water under the Utility Department's FDEP Permits may not require Total Nitrogen and Total Phosphorus analyses for compliance reporting. In those instances, the Total Nitrogen and Total Phosphorus values are obtained for informational purposes only and submitted in the attached spreadsheet.

- The most current information on the Septic Tank inventory and stakeholder boundaries within Indian River County requested under Task 2 were submitted under Task 1 on July 16, 2021 from the County.

Indian River County appreciates the opportunity to continue to work with the Department on the current SWIL Model update effort.

If you have any questions on this submittal, or need any additional information, please contact me at echarest@ircgov.com.

Sincerely,



Eric Charest
Indian River County
Natural Resources Manager

Cc: Molly Klinepeter, Environmental Specialist
Scott Reynolds, Environmental Compliance