



May 23, 2018

Moira Homann, Basin Coordinator
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Draft Wekiwa Spring & Rock Springs BMAP

Dear Moira,

The Friends of the Wekiwa River (FOWR) commends FDEP for preparing this evaluation of nitrogen sources and loads within the Wekiwa Spring & Rock Springs springshed. This is an important first step in restoring and protecting water quality in the springs and Wekiwa River. We offer the following comments on the draft BMAP document dated May, 2018:

1. The FOWR believes strongly that FDEP's proposed remediation plan will **not** be sufficient to meet the TMDL for Nitrogen (N) in the springs within 20 years, which is the stated purpose of the BMAP and OSTDS Remediation Plan. FDEP's TMDL for the two springs requires the N concentration be reduced to 0.286 mg/L. The N concentrations in Wekiwa and Rock Springs currently average around 1 mg/L. Therefore, a 70% reduction in the N concentration will be required to meet the TMDL. However, FDEP is proposing to only reduce the total N load to groundwater from sources within the springshed by about 20% (from about 1 million pounds of N/year to 209,428 pounds/year). FDEP has not provided a scientifically sound explanation of how a 20% reduction in the total N load will reduce the concentration of N in the springs by 70%. To achieve the TMDL, FOWR recommends that the goal of the BMAP and the OSTDS Remediation Plan should be to reduce the total N load from all sources within the springshed by 70%.
2. The draft BMAP is not clear that all existing conventional OSTDS in the PFA must be either sewerred or upgraded to include nitrogen-reducing treatment systems. During a conference call with Drew Bartlett on May 21, 2018, the FOWR representatives understood him to say that FDEP will require all existing septic tanks within the PFA on lots less than 1 acre to either be connected to sewer or upgraded to provide enhanced nitrogen removal within the next 15 years.

The OSTDS Remediation Plan discusses FDOH requirements for modifying or repairing existing septic tanks. But it does not provide a plan for remediating the N loading from existing septic tanks within the PFA. Section D.1.3 of the OSTDS Remediation Plan states: "All conventional OSTDS in areas subject to the remediation policy for existing systems are required to adopt enhanced treatment of nitrogen no later than 20 years after BMAP adoption." FOWR believes that this statement could be interpreted as referring only to existing septic tanks that are modified or repaired. Based on our conversation with Drew Bartlett, FOWR recommends that the OSTDS

Remediation Plan should clearly state that all existing OSTDS within the PFA on lots less than 1 acre must be upgraded or connected to sewer within 15 years from the date the BMAP is adopted.

3. FDEP is apparently counting all the N reductions listed for the projects in Appendix B (starts on page 66) regardless of whether they are in the PFA. For example, Table 6 lists a reduction of 126,497 lb N/year from FDEP's WWTF Policy for the PFA and the Projects Listed in Appendix B. This apparently includes a City of Orlando project for Nutrient Reduction at their Conserv II WWTF (ORL-28), which is listed in Appendix B as reducing their N load by 69,436 lb/year. This raises 3 questions:

First, is this the entire N reduction to be achieved by the City of Orlando's Conserv II WWTF Nutrient Reduction project, or only the portion of the N reduction that will be applied within the springshed? If the latter, how long will it take the groundwater in that part of the springshed to reach the springs? Our understanding is that studies of the groundwater from the extreme southern portions of the springshed may take many years to reach the springs. If the former, we recommend adding a footnote to explain the estimated N reduction within the springshed.

Second, FOWR questions whether N reductions outside the PFA should be considered as equal in benefit to N reductions within the PFA because of the time required before the N reductions from sources outside the PFA would be seen at the springs. FOWR recommends that FDEP should only count N load reductions from projects within the PFA in order to provide the best opportunity of realizing the results at the springs within the 15 year target time frame.

Third, the NSILT applied attenuation and recharge weighting factors to the N loads from the various sources (FDEP Presentation to OSTDS Advisory Committee on August 15, 2017). For example, an attenuation factor of 25% was applied to the N load from WWTF effluent discharged to RIBs. In addition, recharge weighting factors were also applied for loads within high (90%), moderate (50%) and low (10%) recharge areas. Were the same attenuation factors and recharge weighting factors applied to the estimated load reductions from Orlando's Conserv II Nutrient Reduction project and from the other projects listed in Appendix B to estimate the N load reductions to groundwater? If not, why not? If so, Appendix B should be modified to document these factors.

4. The springs legislation requires more stringent treatment standards for existing WWTFs in the PFA that use RIBs, reuse or other land disposal (Table 13 in Section 2.8.2). These new standards will require WWTFs larger than 100,000 gallons/day to provide advanced wastewater treatment (AWT) with an effluent N concentration of 3 mg/L or less if the effluent is reused. This policy will affect the Apopka WWTF, the Orange County NW WRF, the Altamonte Springs WRF and the Sanlando WWTF. This policy will increase the user charges to the residents who are connected to sewer and served by these WWTFs.

But FDEP is proposing to require residents on OSTDS to only reduce N loads by 65%, meaning that septic tank effluent could contain anywhere from 10 to 30 mg/L of N after the enhanced N removal (depending on whose data you use for septic tank effluent). So, one (1) house on an "enhanced" septic tank (N reduction of 65%) could contribute as much N to groundwater as 3 to 10 houses on sewer with AWT. This doesn't seem fair to the sewer customers. FOWR recommends that more stringent standards be set for N reductions from OSTDS within the PFA

to more equitably distribute the costs of reducing N loads and to have a better chance of achieving the TMDL within the 20 year target.

In summary, while FDEP's efforts are commendable, the FOWR believes that a much more aggressive approach to reducing nitrogen loads from all sources, especially those within the PFA, will be needed to meet the TMDL in Wekiwa and Rock Springs within the next 20 years.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Cliburn".

Michael Cliburn, P.E.

FOWR Representative to OSTDS Advisory Committee

Cc: Kevin Coyne, FDEP
Drew Bartlett, FDEP
Tiffany Busby, Wildwood Consulting
Jay Exum, Ph.D., FOWR
John Pottinger, FOWR President
Nancy Prine, FOWR Technical Committee
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