

BMAP for the Upper Wakulla River Recommendations for the Phases and Milestone of the first 5 years

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October 16, 2013

The proposed phases and milestones therein for the first 5 years of BMAP for the Upper Wakulla River will not result in any effective nitrogen reduction from OSTDS. The entire 5 years is proposed to be spent on identifying strategies and having stakeholders weigh in on their responsibilities. Implementation of these strategies and therefore even the chance of effective and persistent nitrogen reduction from existing and new OSTDS due to development during this period is being postponed unnecessarily for 5 years.

I hope you are willing to consider revising the current proposed phases so that by the end of the first 5 years at least nitrogen reduction management strategies have been fully implemented. **Within the first 5 years of the BMAP, a sufficiency of effort should include the establishment of a comprehensive wastewater management plan and utility to implement this plan for the unincorporated areas, at least within the Priority 1 area of the BMAP.** However, it should be recognized that the management of all OSTDS throughout the counties will be necessary to fully protect human and environmental health and to provide for future sustainable development that realizes local future land use plans.

The second 5 years of the BMAP should be the actual retrofit and construction of facilities.

I recognize that the State legislature has hamstrung local government from actively reducing nitrogen due to existing OSTDS and putting into question whether they can require new development to use nitrogen reducing systems in the Wakulla Springs basin, even in the priority area identify during the current BMAP process. Meanwhile the State (and Federal) governments are insisting that the springsheds and aquifer be protected and restored, but the State has refused local authority to do so. The authority to implement legislation and regulatory requirements that will accomplish nitrogen reduction needs to be provided to local governments.

However, until the time that the logic of such legislative is acknowledged, local governments can implement nitrogen reduction strategies for OSTDS as allowed by current law. Not everything is disallowed. Nor should the current state of inadequate legislative authority be used as a cover for spinning wheels for 5 more years.

OSTDS are and will continue to be a necessary, and in many places a sufficient component of wastewater treatment. However, OSTDS are “systems” and collectively have significant and growing impact on water quality above and below ground. Therefore, OSTDS, just as a “big pipe” sewer system or a “package plant” need to be managed more than only at the initial stage of

construction.

Also, the types and capacities of OSTDS will change over time. The effective development of a passive nitrogen reduction systems is NOT a panacea. No technology, however effective, will not significantly reduce nitrogen UNLESS there is a management (government) entity that requires nitrogen reduction. Conventional septic tanks will always be cheaper since they pass on the real cost of effective wastewater treatment onto the public and future generations.

New engineering, technology and site-specific implementation will be constantly developed. In fact, if the State government would allow and require nitrogen reduction strategies in regards to OSTDS technology, I suspect there would be a significant increase in the speed at which technologies get developed, brought to market, improved AND the price lowered. Capitalism and entrepreneurship could be put to excellent use in protecting our public water sources AND encouraging sustainable development.

I request that the recommendations for evidence of sufficiency of effort for Leon and Wakulla counties be not only to “identify nitrate reducing management strategies” but also to begin their implementation, as allowed by state law. This should allow for all planning, utility establishment including initial financing, development of a long range financing plan for infrastructure and financial assistance to private property owners, inventory of OSTDS which should include inspections and identification of both human and environmental health problems. The last can be done even if no requirement for repair can be made – the identification of problems is the first step.

Therefore please be explicit that by the end of the 5 years, Leon and Wakulla counties should have developed, adopted AND implemented.

Wastewater Infrastructure Management: Planning and Implementation

Evidence of Sufficiency of Effort should include the fully realized process of planning, financing and implementing a management system for all existing OSTDS and the area where they would be permitted in the unincorporated area.

I propose that counties each develop a long-range plan that addresses the full range of diversity of environmental and land use need for wastewater infrastructure AND management in their unincorporated areas; identifying a revenue and funding source that can be sustained in order to accomplish the retrofit of thousands of septic systems and provide for new development; and provide centralized management. This should include all stakeholders; governments and citizens. It will take time, probably most of the 5 years of the BMAP. But the end result should be a **fully implemented set of strategies for nitrogen reduction**, not just the plans to implement.

Phase I: (4 months)

1. *Review existing estimates of OSTDS impact*

There are already many of them. Acceptable estimates should include:

- Additional growth in the number of OSTDS and COT sewer capacity
- Understanding of water flow between Wakulla and Spring Creeks such that the maximum loading and concentrations are acknowledged

2. *Identify potential management strategies*

These strategies should recognize that:

- COT sewer facility cannot economically be further improved
- OSTDS facilities can be immensely improved
- Cluster facilities are not the equivalent of notorious “package plants”
- Responsible management entities, aka utilities, for OSTDS already in use throughout the United States. “Not invented here” should not be used as a reason for not adopting a management strategy.
- Implementation of an comprehensive management strategy that includes an RME may attract federal and state funding compared to requesting support for sewer extension.

Phase II: (36 months)

1. **Provide options for establishment of a responsible management entity (RME) that has characteristics of an EPA Level 4 or 5 of entity including:**

- *Scope and Responsibilities*
- *Oversight and Administrative Structure*
- *Planning and Financing of RME itself (not facilities)*
- Examples of existing RMEs of various levels of complexity
<http://water.epa.gov/infrastructure/septic/demos.cfm>

In my opinion, the RME should NOT a “super planning” agency. It is an agency that implements wastewater management following existing county policies and regulations. Using the existing land use maps, zoning allowances, environmental overlays and known conditions, the RME would use experts (in-house or consultants) to identify the types of wastewater treatment engineering or facilities would be appropriate to a given location based on environmental conditions and land use.

Do something different than point to the Lombardo study as an RME that isn't viable. This study provided a pro-forma structure and financing for an RME. Instead, IMPLEMENT the recommendations of the Lombardo study which are to create a management entity that will function here and now in Leon County.

2. **Involve all stake holders in the development of these options.**

The public needs to be much better informed about the impact of OSTDS

including how it limits development and the realization of zoning allowances for land owned that is inside the Urban Services Boundary (of Leon County) and the Rural Communities (such as Woodville). To date only fear mongering and rhetoric has been used, mostly against the County's efforts. But new efforts should be initiated. The actual owners of the OSTDS need to be involved – both south and north of the Cody Scarp.

3. Establish regulations following Board of County Commission directives for:

- *Wastewater Treatment Standards*
These standards should recognize the different aquifer and surface water vulnerabilities found throughout the counties. It should also reflect the current local Future Land Use and Long Term Regional Transportation Plans so that areas currently zoned or intended for high density development and growth. The standards should reflect human and environmental health needs, but the engineering should reflect the existing and intended development and growth.
- *Requirements for connection to facilities upon their completion*
This should include public and private facilities, new and existing ones. If connection does not take place, then nitrogen reduction has not occur.

4. Identify and adopt Stormwater Facility Engineering Standards that will decrease nitrogen in the BMAP Priority 1 area

- *Identify areas within the Woodville Basin that need nitrogen reducing stormwater treatment standards*
Therefore, Leon County should perform a Woodville Basin Stormwater Treatment, Flooding and Management Plan. The Plan should consider new stormwater engineering treatment standards that require retention of water above the surface (or groundwater) for a period of time, in a biologically active community, that can result in substantial denitrification.
- *Adopt said Stormwater treatment standards*
Stormwater runoff in many parts of the PSPZ/BMAP priority 1 area percolates rapidly through the surface. This is a common characteristic of the high aquifer vulnerability of the area. In order for nitrogen to be removed from stormwater, it needs to sit above the water table in a biological active environment that supports the community of plants, bacteria and other organisms that will denitrify the runoff. This takes time. Rapidly percolating water is NOT treated.

As wastewater that supports higher density development is made available through public or private investment, more stormwater will be generated. There are also areas of relatively poor percolation in which flooding will be exacerbated with greater intensity of development.

5. Initiate an inventory and inspection of OSTDS

- One of the first actions of the RME should be to inventory all existing OSTDS
- Inventory should include site location of all components and description of their condition
- Inspection of the components and identification of existing problems
- Proposed recommendations for solutions to existing problems
- Requirement of fixing existing OSTDS problems will have to conform to current law, but identification and recommendations can be done now
- Expect completion in 5 years, in time for the second BMAP
- The RME can be established with oversight of existing OSTDS even without a “perfect” inventory. It’s establishment will assist the inventory process. Customers of the RME will speak up about mistakes in assessment.

Phase III: (8 months)

1. Adopt preferred options and establish the RME

The Leon County Board of Commissioners has already considered one version of an RME: the pro-forma version outlined in the Lombardo Associates report. However, this proposal included immediate implementation of a county-wide management system that also immediately financed the estimated \$221 million infrastructure deficit due to the need to retrofit all existing OSTDS in the Leon County Primary Springshed Protection Zone to AWT standards in very few years. This would require a monthly payment nearly equal to or surpassing the current COT sewer utility customer cost. While this does reflect the simple fact that removing nitrogen from wastewater is expensive and meeting AWT standards costs the same no matter what scale of technology and engineering is used (from OSTDS, cluster to big-pipe sewer), this clearly is not a politically nor economically viable approach.

BUT, voting against this particular form of an RME does NOT preclude the value of a differently structured and financed level 4 or 5 RME. Leon County should be directed to reconsider a more sensible economic and political solution.

The most difficult step in the establishment of a regional management systems will to get buy-in from the citizens that the OSTDS in their “back yards” are part of a regional wastewater management system that needs to be managed and facilities need to be built to serve those in need of wastewater treatment that is not going to be provided by a centralized sewer utility. The citizens of Leon County have been paying a stormwater management fee which helps to mitigate the impacts of stormwater from private property all

over the county. This same need exists for wastewater.

Phase IV (remainder of BMAP first 5 years)

The planning for the management, potential location and engineering of wastewater treatment facilities should be initiated with Phase II – the provision of options for management. Both are essential and strongly connected parts of a comprehensive wastewater management plan. However, once a management plan has been adopted, the study and development of facilities plans should become the focus the sufficiency of effort for the BMAP.

1. Wastewater Treatment Facilities Plan

- *Develop an engineering study for the Primary Springshed Protection Zone (PSPZ) or the BMAP Priority 1 area to determine appropriate scale, capacity and location of facilities: sewer, cluster and onsite septic systems that reflect need for nitrogen reduction, existing land use and future land use. Wakulla and Leon county should both do this for their respective areas of the BMAP Priority areas at a minimum.*
- *Develop and institute engineering standards for privately built facilities*
Be prepared for any private application to build facilities for new development that does not use connection to centralized sewer. Essentially, allow for the private development of cluster systems, but require continuing oversight by the RME.

2. Management and Facilities Financing Plan

- Develop plans for financing the capital costs of facilities
- Develop plans for aid in retrofitting onsite septic systems when allowed by State law
- Establish policies for determination of user fees for operations and maintenance of facilities with specific values to be determined as facilities are built

3. Extension of COT sewer

- *Extend COT sewer into unincorporated areas of the USA in the PSPZ/BMAP priority 1 area (aka Lake Munson area)*
The timing of this will largely depend upon the identification of financing. However, such a project SHOULD be part of the a comprehensive wastewater management plan, including it's financing.
- *Create a long term financing system that supports this extension AND connection for ALL existing OSTDS and new development in these areas to sewer where feasible*

The current Leon County Wastewater management plan consists of identifying locations where septic tanks are failing en-mass or where

zoning allows development that cannot be supported by conventional septic tanks and then waiting for “manna from heaven” to arrive in the form of some large capital fund such as the proposals for the renewal of the Leon County Sales Tax. There is no comprehensive plan that addresses problems, sustainable financing and management. Leon County needs to be encouraged and supported in doing this instead of simply seeking money to write a check to COT sewer utility.

4. Create a connection assistance funding program

- Devise fiscal tools to assist in retrofit/connection of existing homes and businesses to nitrogen reducing wastewater treatment facilities
- Be cognizant of how “incentives” have failed in the past AND that two-thirds of the County residents, rich or poor, are already paying for nitrogen reduction of their wastewater without direct public assistance.
- Recall what has happened in Killearn Lakes: \$5.3 million spent on centralized sewer infrastructure for 1365 residences, but only 198 homes have connected to this system. It is infrastructure left significantly under utilized while the problem of human waste polluting surface waters, yards, road and homes, remains (especially during heavy rains).

5. Encourage private investment in wastewater systems that meet adopted standards

- Allow private cluster systems to be built which will allow private landowners to develop to the current zoning capacity
- Provide incentives to include capacity for retrofitting of existing development, similar to the manner in which existing stormwater problems are sometimes resolved with capacity from facilities for new private development.