

**Wakulla Springs Alliance**

**9-18-15 Board Meeting Minutes**

The Wakulla Springs Alliance held a Board meeting on September 18, 2015 at the Renaissance Center. The draft agenda and list of participants can be found in Appendices A and B. Review the action items underlined below for your commitments and actions you can help with. This report is based on the secretary’s notes and does not capture everything or exactly what was said.

**Opening**

Chairman Sean McGlynn welcomed everyone, reviewed the meeting agenda and everyone introduced themselves. The treasurer’s report (Appendix C) was presented and approved.

**Leon County Septic Tank Inventory -** Alex Mahonand Luke Tabbert

The recently completed inventory of septic systems in Leon County is estimated to be 98% accurate. There are 108,000 parcels in Leon County and about 20% are in the Primary Springs Protection Zone. There are 5287 septic systems in the Primary Focus Area 1 and 33,558 in all of Leon County. Keith Lawhon has data for Wakulla County (PFA 2). There is no way to tell if the systems are designed or functioning adequately. Older systems may have concrete block sides and no bottom or other designs that do not provide treatment. Only performance based systems reduce nutrients. The data will be updated monthly using permit information. All of the data will be available on the County GIS website. This information can be used in prioritizing sewering projects and advocating for a responsible management entity for septic systems in Leon County.

**Parks in Peril -** Jim Stevensonand Albert Gregory

Jim and Albert reported that they had been to the Capital the day before. Support groups have been formed for Myakka and Paynes Prairie State Parks. They are also reaching out to garden, wildflower, canoe/kayak and other clubs. Everyone was encouraged to attend the Leon County Legislative Delegation Meeting the following Monday. A motion was made and approved to send a WSA letter that will be refined and approved by the Executive Committee. There was a suggestion to consider a petition for rulemaking. See Appendix D for a position statement.

**BMAP Comments from the WSA -** Seán McGlynn and Debbie Lightsey

The deadline for comments on draft Basin Management Plan for the attaining the Total Maximum Daily Load for Nutrient (Biology) in the Upper Wakulla River and Wakulla Springs Basin, was extended until 5:00 PM on the day of the this meeting. Debbie reported that she and Pam Hall have sent detailed comments addressing OSTDS impacts, use of the term “sufficiency of effort,” allocation of responsibility for nutrients, the need for specific projects, establishment of a Responsible Management Entity (RME), etc. Tom Swihart made a motion, seconded by Howard Kessler, that was approved unanimously to summit comments that support comments sent by Debbie and Pam (to be attached) and add recommendation for:

1. Expanding biological monitoring beyond the current indices
2. Additional cave monitoring at R&Q (?) caverns coming from the national forest
3. Using additional tracers for dye studies
4. Considering all karst features (sinking lakes) in the sinking creeks category
5. Monitoring biological conditions quarterly rather biannually

**Floridians Against Fracking** - Howard Kessler

Howard has circulated information on the issue and the group. Jim Stevenson made a motion to join group, that was seconded by Cal Jamison and approved unanimously without quorum. [This may be approved by the Executive Committee]

**Highway 319 Widening Update** – Albert Gregory

Bob Deyle sent an email saying, “Zoe K agrees that DOT needs to do more deep electrical resistivity analysis at the pond sites at New Light Church/Spear roads and on the Duggar property. I hope to catch up with her in person soon but may have to go out of town next week.” The sinkhole is about 230’ north of the holding pond on the Dugger property. Everyone is encouraged to attend the DOT public meeting, at Wakulla County Community Center on Shadeville Hwy and Trice Lane, 6:30-7:30 Tuesday Sept 29.

**Karst Lake Updates –** Sean McGlynn

Sean reported that there are aerial photos that indicate a turbidity plume in the Upper Lake Lafayette and other noteworthy events.

Mark Heidecker reported that he and DEP went to see the connection of the turbidity plume and aerial map and didn’t find an increase in turbidity. They did sampling and the water looked clear. It may be reflection off the bottom in the aerial photo. It could be coming from undeveloped land around the lake. It was pointed out that DEP is changing the rules so future actions may be restricted.

**Legislative Report –** Jim Stevenson

Rob Williams requests everyone to go to the LC delegation meeting. Rob Williams, Albert Gregory and Jim Stevenson attended the Agriculture and Natural Resources committee meeting.

**Diving Issues in Wakulla Springs -** Cal Jamison

Cal reported that permits are still being given by someone at DEP, not Park staff. They had 50 people there yesterday. Cushman and another diver have the permit. Cushman is well connected, has not performed on various agreements and often sues people. Cal suggested the letter needs to address the damage but not the permitting issues. Bonnie, the Assistant Park Director, is upset about the damage and the insufficiency of dive reports. Cal and Sean will refine the draft letter for Executive Committee approval. Friends of Wakulla Springs can take on other issues. The letter will be sent to the Park, district office, Danny Jones, Park Small, Don Fironi, and Jennifer Portman with pictures of the damage.

**License Plate Grant Updates**  **-** Jim Stevenson

Jim has been working with the videographer on the “Following the Water to Wakulla Spring Video.” Seán McGlynn is working on the Wakulla Spring Dark Water: Causes and Sources, and Lake and Sinkhole Seepage Nitrogen Loading to Wakulla Springs projects.

**Springshed Updates -** Cal Jamison

Spring Creek is flowing again and Wakulla Springs is clearing. Fisher, Black and Lost Creeks’ flow is dropping with a few peaks after storms. Water levels at the Wakulla Springs dock has been dropping for 1-½ months and the water is clearing. Cheryl and Emerald sinks are going to the ultra low levels they were at in March. Cheryl is still tannic and it is worse at Emerald. Indian Springs is nasty because of no flow and the wetlands back flowing into it. Big storms will clear it quickly before becoming tannic. New sinkholes are opening in Wakulla County. There were 2 manatees spotted on Saturday wildlife survey and there have been 6-10 this summer.

**WMD Environmental Permitting Rule Change Workshop**

DEP is holding a Workshop on updates to WMD environmental permitting and streaming rules, Chp 62.330 Applicants Handbook 1 and 2. Oct 2 at 2:00 PM in 609 Martinez Building. Everyone is encouraged to attend.

Appendix A



**Wakulla Springs Alliance**

Agenda

09-18-15

9 am to 12 pm, Renaissance Center

435 N. Macomb Street, 2nd Floor Conference Room

**9:00 Opening**

Welcome and meeting agenda review (Seán McGlynn)

Introductions (Board)

Secretary Minutes (Tom Taylor)

Treasurer Report(Howard Kessler)

**9:15 Leon County Septic Tank Report -** Alex Mahan

Discussion and mapping

**9:35 Questions**

**9:45 Parks in Peril -** Jim Stevenson

Leon Legislative Delegation Public Meeting, Sept. 21 at 6:00 p.m. (LCC Chamber)

**10:05 Questions**

**10:15 BMAP Comments from the WSA -** Seán McGlynn, Debbie Lightsey and Rob Williams

Comments on DRAFT BASIN MANAGEMENT ACTION PLAN for the Implementation of the Total Maximum Daily Load for Nutrient (Biology) in the Upper Wakulla River and Wakulla Springs Basin, August 2015

**11:00 Questions**

**11:00 – 11:15 Break**

**11:15 What’s new** (about 5 minutes each)

* + Floridians Against Fracking - Howard Kessler
	+ Highway 319 Widening Update – Albert Gregory and Bob
	+ Karst Lake Updates **-** John Outland
		- Turbidity Plume in the ULL and other noteworthy events
	+ Legislative Report **-** Rob Williams and Charles Pattison
	+ Algae in Wakulla Springs **-** Bob Deyle and Seán McGlynn
	+ Diving Issues in Wakulla Springs: **-** Cal Jamison
		- Draft Sally Ward, Position Letter
	+ License Plate Grant Updates  **-** Bob Deyle
		- Following the Water to Wakulla Spring Video, Jim Stevenson
		- Wakulla Spring Dark Water: Causes and Sources, Seán McGlynn
		- Lake and Sinkhole Seepage Nitrogen Loading to Wakulla Springs, Seán McGlynn
	+ Springshed Updates **-** Cal Jamison
		- Spring Creek flowing and Wakulla Springs clearing???
		- Where are the Manatees

**11:55 Other Business**

**12:00 Adjourn**

Appendix B

**Board, Advisors and Guests**

\* Indicates 9-18-15 Participants

Board Members

Bob Deyle

Albert Gregory \*

Cal Jamison \*

Howard Kessler \*

Todd Kincaid

Debbie Lightsey \*

Sean McGlynn \*

Charles Pattison

Jim Stevenson \*

Tom Swihart \*

Tom Taylor \*

Rob Williams

WSA Advisors

Anthony Gaudio

Pam Hall

Julie Harrington

Bob Henderson \*

Bob Knight

Pam McVety

Dan Pennington \*

Bob Thompson \*

Guests

Mark Heidecker \*

Alex Mahon and Luke Tabbert, DOH Presenters

Appendix C

**WSA Treasurer’s report: September 2015**

Checking Balance of statement ending August 31, 2015: $2,866.59

Activity this month on statement ending June 30, 2015:

Deposit: $1,681.09

Deposit: $799.00

Check 133: $1,932.00

**Current Balance August 31, 2015:** **$3,414.08**

Appendix D

**Standing for the Future of Florida State Parks**

Florida’s state parks were established for the benefit of the people of Florida and to protect the state’s natural and cultural resources. Legislators and agency leaders are not providing leadership to fund, manage and expand parks and other public lands. People who care about Florida parks stand together so that:

1. State parks will be managed for the primary purpose of conserving their natural and cultural resources and providing compatible resource-based recreation. Secondary uses will be approved only where they do not conflict with the primary purpose.
2. State parks will meet recreation demand by expanding the park system and developing facilities at under-utilized parks rather than by accommodating additional visitors at parks where visitation already meets or exceeds their ecological carrying capacity.  Park improvements that degrade resources or visitor experiences will not be made.
3. State parks will receive annual appropriations from the voter approved Land Acquisition Trust Fund and state general revenue for management of natural and cultural resources.
4. Cattle grazing will be conducted only on improved pasture as a temporary maintenance activity until ecosystem restoration can occur.  Cattle leases will not be issued in natural areas and park land will not be converted to pasture.
5. Timber harvesting and thinning will be conducted only for resource restoration purposes.  Sustained-yield forest management practices and commercial harvesting of forest products will not be conducted in state parks.
6. Recreational hunting will not be expanded beyond the three parks where it presently occurs:  Cedar Key Scrub State Reserve; Rock Springs Run State Reserve and the Marjorie Harris Carr Cross Florida Greenway.
7. Public hearings will be conducted before any disposal of state park lands or transfer of parks to other management agencies.
8. DEP will be open and transparent to the public when considering changes in the way state lands are managed.  The public will have ample opportunity to review and comment on proposed changes before changes are adopted.

Appendix E

9-18-15 WSA Wakulla BMAP Comments

Moira

Thanks for extending the comment period.  The Wakulla Springs Alliance appreciates the opportunity to provide comments on the August draft of the Wakulla BMAP.  We support many of the changes that have been included in this draft including the updated allocation of nutrient responsibilities, the project list and the creation of the OSTDS Initiative, which we look forward to participating in.

Clearly the main focus needs to be on addressing nutrients from OSTDS.  We have reviewed and support the detailed comments submitted by Debbie Lightsey and Pam Hall (attached) that address: OSTDS impacts, use of the "sufficiency of effort" standard, allocation of responsibility for nutrients, the need for specific projects, establishment of a Responsible Management Entity (RME), etc.

The other 1/2 of the nutrients come from other sources.  The following are suggestions for  improving the scientific basis needed to determine the quantity of nutrients by source and related biological impacts that can be used to determine priority strategies and measure the results.  This may include:

1. Expanding biological monitoring beyond the current indices
2. Additional cave monitoring at R&Q (?) caverns coming from the national forest
3. Using of additional tracers for dye studies
4. Considerating all karst features (sinking lakes and sinkholes, etc.) in the sinking creeks category
5. Monitoring of biological conditions quarterly rather biannually
6. Supporting funding of the attached study proposal by FSU

We appreciate your consideration of our comments and look forward to working with you to assure a healthy future for Wakulla Springs and River.

Tom Taylor, WSA Secretary

D. Lightsey Comments

Wakulla BMAP Final Draft, July 2015

Note: I have sent a number of statements on the Wakulla Springs BMAP in the past, including comments as late as Nov. 21, 2014. I have used differing approaches and specifics at various times trying to find some way to influence the final product. I see some cosmetic changes in BMAP language, but most of my substantive comments have yet to be adequately addressed. I also reference previous, detailed comments by Eric Livingston, Dr. Pam Hall and Rob Williams of Earth Jurisprudence. I have again focused my comments on OSTDS nitrate pollution.

**OSTDS Initiative:**

**Advisory Committee**

I have several objections to the objectives and the structure of the Committee. Only the entities who either produce or approve activities that produce nitrates are listed as Members of this committee. There are no seats listed for independent Springs Advocates on this committee. Other than the City, Leon County, Wakulla County and the FDOH, you reference only.....vested stakeholders such as homeowners or private utilities. This is not acceptable.

**Please add the Wakulla Springs Alliance to the listed Members of the OSTDS Advisory Committee as well as 1000 Friends of Florida and other Environmental and Community Groups.**

I am a homeowner in the Springshed as are thousands of others. In fact my home is within the Primary Springs Protection Zone. **Clarify that there will be representation for homeowners in the Primary Springs Protection Zone.**

**OSTDS Objectives:**

Section 1.2.4.1 - **Delete Objective 1 of the OSTDS Initiative. ....identify, collect and evaluate credible scientific information pertinent to the nutrient impact of OSTDS on Wakulla Springs.** That impact is well established and documented in this report and the data sources listed. This BMAP repeatedly states that since the City of Tallahassee retrofitted the TP Smith plant and sprayfield, OSTDS are the largest contributor of nitrates to Wakulla Springs. This task has been materially completed. (See other sections on nutrient sources and OSTDS reports and inventories.) To pretend otherwise and call for years additional delay for data collection is not supportable.

**Amend Objective 3 to read: Within 3 years of the adoption of the Final BMAP, require the completed OSTDS Plan include Funded and Approved projects that reduce nutrients in PFAs 1 and 2. To be found Sufficient: These Local Government projects should commence construction prior to the end of year 5 of this BMAP.**

**OSTDS Nitrate Pollution – Responsible Entities**

In several conversations with FDEP staff, I have been told that FDEP fully recognizes that the local government which approves land use decisions and issues development permits has responsibility for the pollutants flowing from the OSTDS that serve that development. DOH is responsible only for permitting OSTDS. What about proper owners responsibility. **Directly state the persons or entities which are or are not Responsible Entities.**

**Future Development in the Primary Springs Protection Zone:**

This Draft BMAP still fails to address in any material fashion the wastewater impacts from new development which cannot be served by central sewer. Language on pages 52 and 67 indicate Leon County is considering or proposing regulations that limit new WTFs to AWT standard, but this language directly excludes new development on OSTDS. Other language in this BMAP states that no action will be required until the OSTDS Advisory Committee develops an OSTDS Plan (non-binding and agreed to be all stakeholders). You allow 3 full years after adoption of the Final BMAP for this Plan to come forward. As the curent BMAP is written, additional years could lapse before the Plan results in higher OSTDS standards.

You hinge this remediation timeline on State Legislation and the completion of the FDOH Study on Passive Septic treatment options. That study is materially complete now and the results will be announced on or before December 31, 2015. So leaving higher nitrate removal standards for new OSTDS unaddressed until the completion of the OSTDS Plan is unacceptable.

**For Future Growth: Include language which allows local governments and DOH 18 months following the release of the FDOH report to amend development regulations to require the use of whatever new OSTDS treatment standards and technology that the report specifies.**

In addition: **Require that within 18 months of the Adoption of this BMAP that all Local Government Stakeholders adopt stricter land use standards , development densities and intensities for new development in the PSPZ. Require on that same timeline that all Local Governments adopt regulations limiting Permitted Land Uses that may negatively impact groundwater resources in the Springshed in those areas delineated in the LAVA and WAVA maps as High Aquifer Vulnerability Areas. This protection language should be adopted into both Comprehensive Plans and Land Development Regulations.** I include these Comprehensive Plan and LDR issues here because I see that they are generally (although inadequately) referenced in the Management Strategy charts from Leon and Wakulla Counties and the City of Tallahassee.

**Nitrogen Source Inventory and Loading Estimates**: NSLI

I am pleased that you have included some of the data from this July 2014 FDEP report. However you refer to it as the NSILT and have added the word Tool very prominently to its title. Please delete Tool from the name and give its results the weight they deserve. Several charts and tables from the NSLI should be included in the final BMAP. **Include NSLI: Table 13: Estimated Nitrogen inputs and loads in WFA; Figure 10 – Relative Nitrogen Loads to the UFA contributed from Nitrogen Source Categories; Figure 11: Loading Percentages attributed to the recharge areas and nitrogen source categories.**

.

**Leon County Septic Tank Inventory (Springs Protection Zone)**: underway

I am aware from a recent communication from Alex Mahon – Leon County Health Department – that the numbers are in on the total septic tanks in the SPZ – 6209, OSTDS parcels in the SPZ-5673 and OSTDS parcels within the whole of Leon County including the SPZ-31881. These numbers are readily available and only await minor cleanup which will involve very little change. It will be several months before this BMAP is approved in its Final Version. **Include this new Leon County data in the Final Wakulla BMAP.**

**2009 FDOH Septic Tank Report:**

On p. 42 of this Draft you cite an FDOH report from 2009 that indicates there are 3,867 septic tanks in PFA 1 and 1,802 septic tanks in PFA 2. In Figure 11, a note at the top of the FDOH septic tank location map indicates that there are 24,652 OSTDS in the BMAP area, 19,264 of which are outside the PFAs. While there is a small deviation in the resulting numbers of OSTDS in PFAs 1 and 2 from these sources, simple mathematics gives us total OSTDS number with sufficient certainty to move forward with Nitrate Loading numbers and proposed Nitrate Source Reductions. (Reports: the NSLI, the 2011 Lombardo report, the 2009 FDOH septic tank report, Leon County Septic Tank Inventory.

**Include OSTDS Nitrate Loading numbers for PFAs 1 and 2. (And see next section.)**

**Nutrient Reduction in the PFAs over the next 5 years: Goal Setting**

I can only assume that the absence of any nitrate reduction requirements in this BMAP is based on DEP‘s hope that the actions already taken by the City of Tallahassee will result in water quality/nitrate numbers that meet the required TMDL levels. However the sustained TMDL levels have not been met, nor has there been improvement in the health of biological communities as required to mitigate the impairment documented in the TMDLs for the Upper Wakulla River and Wakulla Springs. Therefore DEP does not have the option to punt, and simply continue to hope.

FDEP (see p. 13) is given authority and responsibility under the rules adopting TMDLs to make reduction allocation by individuals sources or **source categories** and basins. Based on all curently available data, DEP has sufficient information on which to base percentage **annual source category reductions** for nitrates from OSTDS over the next 5 years. DEP does not have to state how this is to be done (technology or system to be used). These percentage reduction requirements should not be delayed until the end of year 3 of the OSTDS Initiative.

The only impediment to this action is the FDOH legislation which expires on December 31, 2015 so it will be soon be eliminated. To fulfill its statutory responsibilities DEP should state this goal in the BMAP:

**Within 5 years of the Adoption of this Final BMAP:**

**Overall Nitrate Reduction Goal: Those projects listed in Approved Capital Budgets of Responsible Local Governments‘ will achieve a 15% reduction in nitrate pollution from existing OSTDS in PFA 1 and PFA 2 areas.**

**Beyond Year 5: Further nitrate reductions from OSTDS will be required based on continued tests and monitoring results.**

Monies will be forthcoming from BP funding in Wakulla County, from City and County general capital budgets and from Approved Blueprint Sales Tax Extension Funds to make a reduction of 15 % either through the extension of central sewer, or the replacement of existing OSTDS with new passive OSTDS technology or the use of cluster systems to replace existing OSTDS. Refusing to state a 5 year nitrate reduction goal renders this BMAP process meaningless.

**Responsible Management Entity for Wastewater Treatment – CoT/Leon County: RME**

 This BMAP covers activities that will occur during the next five years. The OSTDS Initiative requires development of a Plan (by the end of year three following BMAP adoption) which includes specific projects to achieve nitrogen reductions. You list on Page 13 some strategies/projects which can be used to meet the reduction goal. Conspicuously missing from that list is the creation of a Responsible Management Entity for Wastewater Systems for Leon County.

Leon County and the City of Tallahasssee have both approved (acting as the Intergovernmnetal Authority - Blueprint Sales Tax Projects) a project for $2.8 M which includes structure and funding options for an RME. Money will begin to flow in 2019 from the recently passed Sales Tax Extension - within the 5 year window for this BMAP. DEP must require this project and the RME be listed in the Management Strategies for Leon County and the City. (Previous versions of the Wakulla BMAP referenced the creation of such and Entity, and now that it is fully approved and funded you have deleted any reference to it in the BMAP.)

**Require Inclusion of the following language in both the City of Tallahassee and Leon County’s Management Strategies Lists**: (This is the language contained in the approved Tallahassee/ Leon County Blueprint Project List for the Sales Tax Extension – listed as project 26:

**Alternative Sewer Solutions Study:**

**Funding to study and develop preferred options for management alternatives to traditional onsite sewage treatment and disposal systems in the unincorporated areas of Leon County, including the Primary Springs Protection Zone; identify options for responsible management entities, including recommendations for fnancing and management structures for identified options; recommend regulatory measures; identify other issues related to sewage treatment and disposal system financing.**

Establishing RMEs have been recommended by EPA for over 20 years.

**Sufficiency of Effort**: Objectives

1. You have yet to explain or document how the Sufficiency of Effort approach is consistent with state statutes governing BMAPS. 2. You also do not document which projects listed in the Management Strategies will bring any verifiable reduction in Nitrates. 3. Many of the Management Strategies are unfunded. **On what basis have you determined Sufficiency? I would like a responses on the above points!**

**Management Strategies Lists:**

Nitrate Reduction – Listed Mgt. Strategies Projects:

This list has a column for Nitrate Reduction but the majority of the projects shown have no measurable impact on existing nitrate levels. N/A appears repeatedly. **I suggest you have two sets of Management Strategies – one for Reduction in Existing Nitrate Levels in PFAs 1 and 2 and one for projects which may limit nitrate levels from future development.**

Mgt. Strategies - Impact on the PFAs:

Many of the Management Strategies listed for the Local Governments are generic, geographically dispersed or jurisdictionally based policies and are thus not targeted or prioritized to show any beneficial impact to nutrient levels in the PFAs or even the Primary Springs Protection Zone.

For example:

1. Several of the proposed central sewer extension projects in Leon County are well north of the Cody Scarp and certainly do not lie in the PFAs 1 or 2. Management Strategies must be relevant to the PFAs and nutrient reduction. **No central sewer extension projects that are outside the Primary Springs Protection Zone should be used to support the Sufficiency of Effort Approach DEP has chosen.**  If you do otherwise you are ignoring your own prioritization and this Sufficiecy of Effort Approach becomes totally devoid of credibility.

2. Projects in the Fred George Basin will have no impact on water quality/nutrient loads in Wakulla Springs.

I am sure this is true of the projects and policies in the in the City of Tallahassee list and Wakulla County Mgt. Strategies too, and I would apply the same standard there.

**The list of projects on which the determination of Sufficiency of Effort are based must contain only those projects which will result in a direct/significant reduction to nitrate levels in the groundwater in PFA 1 and 2 within the next 5 years. Delete those that do not or create a Secondary Benefit Matrix which could include those projects and policies that may improve water quality in the greater Wakulla Springshed**.

**Document 2 – DRAFT BMAP – underline/strikethrough version**

The following is a list of the page numbers in the Draft BMAP docment on which you will find the most significant changes shown in underline/strikethrough format. I have not included page numbers for all changes. Please review the document to locate all suggested language changes.

Pages 5, 12, 13, 52, 57, 62, 66 and 67.

**Pamela Hall**

5051 Quail Valley Road, Tallahassee, FL 32309

Email: phall@curg.org, cell: 850-445-6007

Dear Ms. Homann:

Thank you for the opportunity to comment on the Draft Upper Wakulla River and Wakulla Springs BMAP of August, 2015.

Below are my general comments. I have also attached a marked-up Draft BMAP document with my specific suggests for changes in language.

1. Specifying the goal of the Wakulla BMAP: TMDL AND Biology.

Thank you for creating a clear summary of the goals of the BMAP.

	1. I am a bit confused by the phrase *“recovery of biological impairment”*. It seems to mean achieving impairment! Perhaps a grammatical rephrasing would help, for instance “*recovery from biological impairment to meet…*”
	2. I further suggest that the entire goal – *achieving the TMDL and recovery from biological impairment”* - be used as more often throughout the text of the Wakulla BMAP whenever the TMDL is identified as the goal. I believe the above phrase is short enough that in most cases it will not make the sentence in which it is added too cumbersome to read. (Note – I change “of” to “from”, as discussed in the item immediately above.”)

	For instance, the biological recovery goal is well incorporated into Chapter 1, Context, Purpose and Scope, but it is missing from the list of Key Elements. The bullet pointed list of the Key Elements is the summary statement of the content of the BMAP.

	Another example where the full goal phrase should be added in multiple locations is 1.3.1 Plan Purpose and Scope.
	*The purpose of this BMAP is to implement nitrate reductions to achieve the Upper Wakulla River TMDL and recovery of the Upper Wakulla River and Wakulla Springs from current biological impairment.”*
	Another is 1.3.3 BMAP Approach
	*The management actions and adaptive management approach described in the BMAP will address nitrate reductions, and the process will continue until the TMDL and recovery from biological impairment target is attained.*

	Please skim through the document – searching on TMDL – and locate where adding a phrase that captures the entire goal would be strategic in making it completely clear that the TMDL as well as the biological condition are the goals which Stakeholders management plans and implementation must achieve.

	Just hoping that the immense improvement at the TP Smith WWTF lower nitrogen is NOT the goal of the BMAP. The condition of our water resources is not just a matter of chemical concentrations.
2. Identification of Specific Load Reductions
 *1.3.3. BMAP Approach*
	1. *It is not currently feasible to assign detailed allocations for nutrient loads to surface water and ground water in the PFAs. At present, the specific load reductions needed from management strategies benefiting the springshed were not calculated due to the complexities of fate and transport of pollutants in the springshed and the uncertainty associated with expected reductions from some measures.*
	Table 13, Figures 10 and 11 from the NSILT report contradict this claim as do numerous statement in the BMAP Report itself, such as:

	The Wakulla Springs basin is one of the best understood karst hydrological systems in the world. There have been a number of very sound studies done, including DEP NSILT, to directly address where surface nutrient loads come from and where they enter the ground water and make their way to Wakulla Springs.
	2. What are the criteria for being able to *assign detailed allocations for nutrient loads to surface water and ground water in the PFAs*?

	Please provide the criteria so that the Stakeholders can figure out what else is needed to be known and how to find it.

	But it is a nonsensical to require the allocation of each individual OSTDS has to be known before assigning reductions, which appears to be where this is all going. OSTDS are a “population” to which probabilities of contribution to ground water pollution can be assigned based on geographic location – south of the scarp or not.

	Sewer, cluster and OSTDS are all forms of wastewater treatment can be used for existing and future development in the Wakulla Basin. It is a matter of setting the standard of treatment, density of development and management and operations of these systems that should be under consideration. We KNOW where the nutrient load is coming from.
	3. *Collectively, the management strategies included in the BMAP are sufficient to address nitrate loading in the PFAs to the Upper Wakulla River and Wakulla Springs Basin over the next five years.*Also, how can you conclude that the “management strategies” are “sufficient” if you can’t “assign” how much reduction they will create? If “sufficient” reductions can be assigned to each strategy than this means the sources these strategies are reducing have been identified and quantified.

	You cannot have your cake and eat it too!
	4. As a community “we” need to quit stalling. We need to get to the hard work of sharing the cost of existing and future development in a manner that is environmentally, fiscally and socially fair. (ARGH!)
3. Addition of the Alternatives to Sewer Study adopted from the Leon County Sales Tax Project List

I have added this to both the COT and Leon County project list and made reference to it in other appropriate locations in the BMAP. I have also revised the PSPZ sewer project for Leon County as the Study would designate the appropriate location and extent as well as identify funding source for a sewer project.

I appreciate very much that this project and it’s implications are added to the BMAP. While it took some persuading, both COT and Leon County Commissions added it to the Sales Tax project list. This study would greatly contribute to a successful BMAP, both in the next 5 years and in the decades to come.
4. I have included a revision marked up version of the August Wakulla BMAP. I hope you will take the time to review my specific suggestions. If you have any questions about my comments or my suggested revisions, please contact me via email at: phall@curg.org or via phone at 850-445-6007.

Thank you very much for your attention to my suggestions. Really, thank you!

Sincerely,

Pamela Hall