

Silver Springs Basin Management Action Plan Meeting

August 21, 2013

Marion County Growth Services
2710 East Silver Springs Blvd, Ocala, Florida

Agenda

Goals

- **Update status of BMAP, project data collection efforts and identify next steps**
- **Technical discussion on nitrogen inventory**

1. Opening Remarks, Introductions & Meeting Goals – Shane Williams – 1:00 PM
2. Technical Program: Paynes Prairie Sheetflow Restoration Project – Alice Rankeillor – 1:15 PM
 - The project is the “poster child” of the Orange Creek BMAP and is located in Paynes Prairie State Park; concept has been around for many years.
 - Old sections of Gainesville drain directly to Sweetwater Branch (SWB) which flows into Alachua Sink. Main Street WWTP has a surface water discharge into Sweetwater Creek. Since 1930’s, a portion of Prairie Creek has been diverted away from Paynes Prairie.
 - Project consisted of 4 major components:
 - Enhancements to Main Street WRF
 - Treatment Wetlands
 - Sheetflow Distribution and Restoration Area
 - Backfilling the existing canal
 - Process- SWB flows to sediment trap, through treatment wetland then as sheetflow across the prairie
 - Treatment wetlands designed by Wetland Solutions and Jones Edmunds are 125 acres total; each cell is about 42 acres
 - Environmental Benefits
 - Water quality benefits- city of Gainesville will meet TMDL for N, Prairie will meet background N and P levels, sediment and trash removal
 - Up to 700K/day that was going to RIBS is now going to the Prairie
 - Hydrologic restoration- restores Sweetwater Branch sheetflow to 1.3K acres and removes a historic canal
 - Adds 264 acres to the state park
 - Cost share with Wastewater Utility and Stormwater Utility. Getting credits for WWT, but permitted as a stormwater project
 - The State Park had concerns over increased P levels, so in addition to removing N, alum is being used to reduce P.

- Added public access facilities such as access roads and trails (3 mi), interpretive plan
- Total project \$26M, grant funded for \$5.2, FDEP TMDL and 319 programs, SJRWMD land acquisition, FDOT MS4 and Stormwater, rec trails through FDEP, FFWC and USFWC
- Robin Dowsey, Wharton-Smith- introduced project partners and provided overview of construction process
 - Biggest challenge is managing water on job site during construction
 - Treatment wetlands consist of deep zones for water accumulation, then sheet flows into cells
 - Used Belted SRF with polyacrylamide to treat fines
 - 430K plants in cell 3 alone

What kind of monitoring is being conducted?	Required 5yr rolling average of N and P, influent and effluent. There is also monitoring associated with 319 requirements. Level gauges are being used. Post construction monitoring includes Comparative UMAM sampling in 3 locations for ACOE.
When will access be allowed for public?	Don't know yet, but construction will be complete soon. Need funding for personnel.
Is there an issue with e-coli at Sweetwater branch and if so, how is it being addressed?	There is a TMDL for fecal coliforms at Sweetwater Branch so a small portion of the Branch will not meet NNC as currently classified. Planning to go after Alternative Site Criteria for that portion.
Are treatment levels actual or planned?	Background values determined in 1970s 3N, 0.3 for P. The treatment levels are planned.

3. Technical Program: Methods/Data for Nitrogen Inventory – Rick Hicks – 2:00 PM
- Being called a Preliminary Source Inventory because it's not ready for actual distribution but should be ready by the next meeting.
 - Sources: atmospheric deposition, fertilizers, land application of biosolids, septic tanks, stormwater runoff, animal waste
 - Areal weighting factors will be applied based on rate of recharge and attenuation factors will be included based on soil types
 - Recharge weighting factors will likely be divided into 3 categories. Highest recharge occurs in the 10 yr capture zone of Silver Springs. This will be checked against GW model

- Attenuation- estimates have been developed for various environmental processes
- Fertilizers- pulled fertilizer sales data from FDACS. There is a steady increase until 1980s, then a sharp decline
 - Issues- Does it all go in the county? Are there imports or exports?
 - Approach: Apportion fertilizer across land use based on quantity sold.
 - This is a difficult task, as even among horse farms there is a large difference in fertilizer applied between farms- can't make assumptions
- Animal waste- Ag census for Marion County used; need a better understanding of how manure is handled (i.e. land applied, hauled, and to where, composted).
- Septic tanks- DOH has only a portion of septic tanks, need data from Alachua and Villages. Marion County is fairly complete. About 59,706 septic tanks in the BMAP area.
- WWTP- have a better handle on that but can't assign one load to all sources. Need weighting factor for sub-sources
- Biosolids- residuals from septage
- Stormwater- difficult. Loaded in different ways, different levels of treatment. If account for it as source, don't want to count it again as stormwater.
 - Approach- Use different confinement ratings to distribute source portion within those areas

On Wekiva, DEP used recommended application rates to estimate fertilizer. Will you use that here?	We may need to go that route. TP- need to be careful because they may be applying at a lower rate
Number of animals can fluctuate throughout a year so have a handle on how those numbers are derived.	Can we get data info from FDACS? Cattle farm census. Maybe ask the Baldwins.
New Ag Census was completed this past year.	
Rabbits- higher nitrogen than humans in waste.	Carol to find out what the rabbit farm uses for waste process. No data for a couple of years. Very high N based on samples. (confirmed that rabbit farm is still in business, but is located in the Rainbow Springs management area)
How do you protect swallets from animal waste? Can you put a barrier around them?	They are protected in BMPs. May be something that can be addressed in next steps.
What is a swallett?	Disappearing stream or sink hole.
Please clarify- reclaimed water was said to be treated to a better quality than other methods.	Comment: need to be careful because there are no nutrient monitoring criteria for reclaimed.
Farm Bureau just completed study in Marion County. Data is available on their website.	

- Having good scientific information is critical to this process.

4. BMAP Roadmap – Mary Paulic – 3:00 PM

- Update- DEP has met with City of Ocala, Marion, Belleview and the Villages about stormwater and wastewater
- Need to complete data inputs .There are lots of activities and data –need to take disparate information and synthesize
 - Data collection outline for stormwater and wastewater- Marion and Ocala have MS4 permits, WWTPs have DEP permits
 - Estimated pollutant removal from DRAs
- Defined provisional area and purpose
 - Few comments on area boundary in divergent directions. Some requested smaller, some larger.
 - Concerns- west of I-75, but that will be addressed in Rainbow Springs BMAP , issues in that area
 - Boundary is provisional until nitrogen inventory is complete. Need to look at data to substantiate changing the map
 - Marion Oaks- SW Marion. Some dense population on septic. I-75 boundary is not included. Rainbow is North. It is included in Gum Slough which discharges to Withlacoochee. Concurring information from Surface Water Resource Assessment as part of Watershed Assessment. It is listed based on nutrients. It is best addressed as part of the Withlacoochee Basin.
 - Rainbow Springs- initiated in July. Rainbow will come up to I-75 to avoid gaps in management areas.

Comment: when talked about boundaries, we said we were going to follow science. Are we just making up things that look good on a map?	No, the boundary lies between the areas but this is for administration.
Many horse farms fall within that grey area. What happens to the little sliver that doesn't belong to either?	They would be included in Rainbow. Note: it is a dynamic boundary. The groundwater divide is moving around.
A good percentage of horsefarms are N of 40, W of I-75. Are they definitely going to fall into one BMAP?	Yes. It's not a question of do they fit into one, it's a question of do they want to participate in both.
What is the scale that you are using to delineate?	It follows a physiographic boundary, typically a road. We're following the science and referencing a physiographic feature.
There are a lot more WWTPs on the east side of the county than on the west. The cost will be higher on the west than on the east.	
Rainbow and silver will have 2 BMAPS. Cost should be the same since you're trying to hit the same target. Does it matter which one they fit in?	
Yes, if one spring has a higher load reduction and has different sources, you're going to	

<p>focus on different sources to get the biggest bang for your buck. Marion is split between regional agencies. Having a different western boundary may be harder to sell than we can anticipate.</p> <p>Decision to draw a line makes sense because you are in both areas; you're not in a no man's land, you're in a both man's land.</p>	
<p>A large landowner that has property in multiple BMAPS may have issues with where the delineation is. This is an issue that is unique to a spring system. If a property owner in a surface water BMAP has property on both sides, each side has to be dealt with different.</p>	
<p>From other areas that have done large restoration projects, you will need a physiographic boundary. You need a physical boundary with an intent statement so that people know why the line was drawn where it was.</p>	
<p>Can you show a map that has all BMAP boundaries?</p>	<p>Yes, we'll bring that for the next meeting.</p>
<p>In future meetings, still opportunity for discussion of boundary?</p>	<p>Yes.</p>
<p>Is there a way to coordinate better with Rainbow for scheduling to avoid having both meetings in the same week?</p>	<p>Yes, need to try to avoid having both meetings in the same week and pay attention to Board meetings.</p>

- We do have more work to be done, but have to start somewhere.
- Seems like this is a conceptual boundary, the other will be based on where load is. At some point, an area will be identified in a boundary but the where the load occurs will be more important.
- Nitrogen Inventory is next. Will help us focus on most vulnerable areas to concentrate remediation efforts. There is a lot of burden going on Marion at one time. Need to prioritize efforts and establish focus areas.
- Down the road, set 5 year target of achievable restoration goals.
- Future Meetings:
 - Lead will shift from DEP to stakeholders.
 - Draft N inventory in October.
- Future discussions could be with smaller groups and include things like monitoring strategy, public education and outreach

<p>Would it be an option for others to attend the smaller meetings?</p>	<p>Yes. Still public meetings.</p>
<p>If you think it's going to be helpful; propose it.</p>	
<p>Public Meetings?</p>	
<p>Could BMAP meetings be held at state park? It would be nice to get back to what we're trying to protect.</p>	<p>Can't do it at the park because there are no vendors on contract at this time.</p>
<p>Comment: let groups know when meetings will be held so they can spread the word.</p>	

- Recap
 - N inventory- good questions and comments. If you have knowledge or information, please share.
 - Provisional Mgmt Area. Sounds like we will need to talk about this more. Both lines of thought have good points. Our job is to try to synthesize something that makes everyone happy.

- 5. Agency Updates
 - DEP Charlie Gautier- Statewide BMAP context.
 - These processes take endurance and participation. In FL 1999 Watershed Restoration Act. The first BMAPs were begun in 2005. Other states have ways to respond to Clean Water Act, while Florida has a way to proactively address it.
 - 17 BMAPS, 5M acres in BMAP areas
 - Once adopted, we all need to stay engaged to implement what is in the plan
 - 4 BMAPs are hitting the first 5 yr level, which calls for more detailed review and assessment of progress
 - First 5 years are easiest. After that, get to more challenging problems.
 - Working on 10 new BMAPS now, expect 4-5 adopted this year. Moving aggressively.
 - Shared progress and issues with other BMAPS. Wakulla, septic tanks is a big issue.
 - Some areas in the state do have overlapping BMAPs- surface and groundwater.
 - Restoration doesn't wait to start until a BMAP is adopted.
 - We are going to be aggressive with the schedule.
 - SJRWMD (Mary Brabham)- Springs Protection Initiative
 - Accelerates and expands what has already been going on. Expand studies and research. Also sharing information is a priority. 3 year plan for detailed research will come in very handy in the 5 yr iteration.
 - Multiple DEP and WMD coordination meetings are being held each month. Just finished cost share cycle. SJRWMD has \$10M going to Springs.

- 5. Looking Ahead – Shane Williams – 4:00 PM
 - Next Meetings: September, Agriculture; October, Nitrogen Inventory
 - May coordinate smaller meetings in the interim
 - Public Meeting- need to look at scheduling this

NOTE: If you cannot make the meeting and would like to have input on the items on the agenda, please email your comments to Mary Paulic at mary.paulic@dep.state.fl.us. Presentations will be available on the DEP FTP site at: http://publicfiles.dep.state.fl.us/DEAR/BMAP/Silver_springs/