

Agenda
Wekiva BMAP Basin Working Group – Meeting #2
June 17, 2009, 1:30 p.m. – 4:00 p.m.
Seminole County Extension Services Auditorium
250 West County Home Road, in Sanford
F.A.W. Notice # 7233501

The mission of the Wekiva BMAP Working Group is to make formal recommendations to the Department of Environmental Protection for implementation of the nutrient Total Maximum Daily Loads (TMDL) for Wekiwa Springs, the Wekiva River, Rock Springs, Rock Springs Run, Blackwater Creek, Little Wekiva River, and Little Wekiva Canal (WBIDs 2956C, 2956, 2956A, 2967, 2929A, 2987, and 3004) via an adoptable Basin Management Action Plan.

Attendees

AFFILIATIONS	ATTENDEES	
Basin Working Group (BWG) Member Organizations (* working group status pending)	BWG Representatives and alternates	Other Staff Supporting BMAP Development
City of Altamonte Springs	Danielle Marshall	John Dennis, Jay Diceglie, arry Dolamore
City of Apopka		
City of Eustis	Donald Sterns	
City of Maitland *	Rick Lemke	Marissa Rodriguez
City of Mount Dora		
City of Oakland *		
City of Ocoee	Whit Heffington	
City of Orlando	Robert Cadle	
City of Tavares	Tanya Jones	
City of Winter Garden	Mike Kelley	
FDACS-Office of Ag Water Policy	Jody Lee (alt)	
FDEP - Wekiva Springs State Park & Wekiva Aquatic Preserve	Deborah Shelley (Wekiva Aquatic Preserve)	
FDOT District 5		
Florida Expressway	TBD	
Florida Turnpike	TBD	
Friends of Wekiva	Nancy Prine	
Lake County	Mary Hamilton	Mike Bowers (alt), Walter Wood
Lake County DOH	Paul Butler	Russ Melling
Marion County	TBD	
	Lori Cuniff	
Orange County		Julie Bortles, John Byrd, Bill Hurley
Orange County Health Dept.		
		Mark Flomerfelt, Gary Johnson (alt), Bob Walter, Shannon Wetzel
Seminole County	Joe Forte	
Seminole County DOH	Meghan Whidden	
SJRWMD	Maurice Sterling (alt)	Mary Brabham, Robert Mattson, Brian McGurk
Town of Astatula	Stephanie Cross	
Utilities Inc. /Wekiva Hunt Club WWTF	Patrick Flynn	
Quorum Met (18 of 26)		

Other Interested Organizations and Individuals Supporting BMAP Development	
CDM	Barika Poole, Kathy Traexler, Leslie Turner
E-Sciences	Robert Potts
FDEP	John Abendroth, Natalie Ayala, Crystal Cook, Chris Ferraro, Vivian Garfein, Jennifer Gihring, Lou Ley, Kalina Warren
FOWA	Roxanne Groover
Inwood Consulting Engineers	Mark Ellard, Tom Amstadt
Residents	Bob Beitel, Terry Gancarz, Jack Hannahs
Royal Consulting	Joel Jordan
SAIC	Kathleen Harrigan, Bob Kelly

1:30 – 1:50 BMAP Development Updates – Jennifer Gihring, DEP

Materials: Agenda and large-format isotope study sampling location map

Jennifer Gihring provided the following updates:

- Relationship of the Basin Management Action Plan (BMAP) to Department of Health (DOH) rulemaking effort regarding onsite wastewater systems: *The purpose of the Wekiva Basin Management Action Plan (BMAP) process is to develop and implement a plan to achieve the Total Maximum Daily Load (TMDL) water quality restoration targets adopted for the Wekiva basin in June 2008. The BMAP, implemented by local governments, other local entities, and state agencies, will contain cost-effective nutrient-reduction projects sufficient to achieve TMDL restoration targets. Selection of projects to be included in the BMAP will be determined by the Wekiva BMAP Working Group, with input from the Department of Environmental Protection. The outcome of the BMAP process will not affect potential Florida Department of Health rulemaking regarding onsite wastewater systems. Information about Department of Health rulemaking can be found at www.doh.state.fl.us/environment.*
- Sunshine Law considerations for Basin Working Group members
- All future meetings will be recorded and recordings will be made available on the FTP site.
- Project collection update- Robert van den Akker, SAIC, has been in touch with several stakeholders and will soon contact the remainder of BWG members.
- Isotope Study- The sampling has been completed for the Isotope study. The purpose of this study is to expand previous isotope work to include two isotopes: nitrogen and oxygen. Analyses of water chemistry (DEP laboratory) and isotope (USGS) data are complete. The isotope data was received from the USGS last week and still needs to be reviewed by DEP. Information from the USGS study will be available before the next meeting by the FTP site and by email. Springs monitoring wells and homeowner hose spigots were sampled.

Meghan Whiddon read a note from Gerold Briggs (FDOH) that the proposed septic tank rule has been suspended due to budget and will not be pursued until the current nitrate study is complete.

Action Items:

None

1:50 – 2:30 Delineation of the Wekiva Springshed – Brian McGurk, SJRWMD

Materials: Powerpoint presentation

Brian McGurk presented an overview of aquifers and groundwater hydrology in the Wekiva basin.

Highlights:

- The Floridan Aquifer is an uneven surface (especially at the bottom), like a piece of swiss cheese, that underlies most of the Florida peninsula.
- Most springs lie at the base of uplands. Within the aquifer, groundwater can flow either vertically or horizontally.
- Groundwater flow is proportional to water level gradient and permeability. Water flows perpendicularly to contour lines on a potentiometric map.
- The different springshed maps were reviewed, including a note that springshed boundaries vary over time.

- Water flow can be affected by climate and/or pumping nearby, which causes variation in springshed boundaries.
- Age-dating methods provide approximate dates. Carbon-14, tritium, and particle tracking is used to estimate the age of water. These methods are not exact, but provide clues to the approximate age of water.

Q&A (Working Group and public; responses from Brian):

In the area west of lake Apopka on your slide (<i>slide 29</i>) shows the pressure head for Wekiwa in the green swamp area, is that right?. Also is the ridge west of Lake Apopka shown (<i>slide 29</i>) the Lake Wales ridge?	Yes, the ridge is the Lake Wales Ridge.
Is there seepage flow into lake Apopka?	Yes, the northeast part of the lake is the recharge area and the southwest part is the discharge area. This is surmised from the potentiometric maps.
We have used maps of the springshed for different groups. Do these maps correlate closely?	We are not sure who is using what map, but all are being used under the understanding that they are approximate. Jennifer Gihring also mentioned that the BMAP planning area is an overlap of different springshed maps in addition to the surface water basin.
Does water in the aquifer generally flow northeast? So any flow coming from the opposite direction, South and West, would affect the spring? Generally speaking, if you are north east of these points (shown on map), you are not affecting the springs?	Yes. That depends on how far it is from the spring. No, you are not.

Action Items:

None

2:30 – 2:50 **Wekiva Protection Act Wastewater Upgrade Requirements and Status Update – Chris Ferraro, DEP Central District**

Materials: Powerpoint presentation

Chris discussed the history of the Wekiva Parkway & Protection Act and subsequent wastewater facility upgrade requirements and the status of these activities. Highlights:

- The act was an outcome of the Wekiva Coordinating Committee's final report, which was passed in 2004. 369.318 (1) F.S. required DEP to study efficacy and applicability of wastewater treatment standards to reduce nitrogen in surface and groundwater.
- Senate Bill 908 (passed in 2005) amended the Act to clarify some items and allow the DEP to implement specific recommendations reported in the nutrient study findings. The Environmental Regulation Commission sets the rules related to standards. As part of the rule-making process, wastewater treatment facilities were notified in 2006, that they are required to upgrade their facilities by the 2011 deadline.
- Chris also discussed the Wekiva Aquifer Vulnerability Assessment (WAVA) which looks at soil permeability and thickness of the intermediate aquifer system. WAVA is essentially a GIS data trimming model that looks at the rate at which molecules travel from the surface down into the aquifer. It is based on a land use model. The map is labeled by aquifer vulnerability, which is zoned from high to low permeability. The map has three different zone labels, which are the primary zones, secondary zones, and tertiary zones.

- The primary protection zone includes no new RIB systems or restricted access spray fields, new reclaimed water limits, no residuals land application sites, and allows 5 years for rule implementation for existing facilities.
- The secondary protection zones allows new RIB system (must meet 6 mg/L for Total Nitrogen), new reclaimed water limits, no residuals land application sites, and facilities have 5 years to implement (10 years for package plants) for existing facilities.
- The tertiary protection zones are primarily discharge areas that meet existing regulations.
- For existing surface water discharges have 5 years to implement and new discharges must meet APRICOT requirements (which requires advanced wastewater treatment), and includes a TMDL clause. (Separate – regardless of which protection zone they are in).
- Chris also said that all wastewater facilities in the Wekiva Basin have been notified and are working on their plans. She also went over examples of current plans for wastewater treatment facilities. She also mentioned where to find more background information on the rulemaking which can be found on the DEP website.

Q&A (Working Group and public; responses provided by Chris Ferraro):

We only have three facilities listed (<i>in the TMDL</i>) for the Wekiva basin, while the list Chris Ferraro presented shows more. Why is this?	These three facilities are the only surface water discharge (NPDES) sites in the basin. Other facilities are ground water dischargers.
We understand that we must reduce nitrogen concentration by 80-90%. How can we translate total nitrogen expressed in mg/L into a percentage to fit it into our understanding of percent reduction?	Percentage load differs from the discharge levels of these facilities. Exact percentages cannot be determined from discharge numbers due to many factors, including plant and soil uptake.
We would like to find out how many people are using reclaimed water in addition to fertilizing their lawns. This way we can determine if they need to do both. It may be that reclaimed water provides enough nitrogen for the yard without additional fertilization.	Reclaimed water does not fall under the irrigation rule. There is concern about nutrients in reclaimed water. A number of Water Management Districts and utilities are participating in a 2-year study conducted by Montgomery Watson Harza (MWH) to determine the effects of reclaimed water on groundwater. Orange County utilities hope to have some sites within the Wekiva Study Area added to that study.

Action Items:

Responsible Party	Item	Deadline
Jennifer Gihring	Send information to John Byrd about concentration vs. loads	ASAP (<i>Post-meeting note: information emailed to Mr. Byrd 7/6/09</i>)

2:50 – 3:00 Break

3:00 – 3:50 Wekiva BMAP Implementation Approach – John Abendroth & Jennifer Gihring, DEP

Materials: Onsite wastewater handout and implementation approach handout

John Abendroth discussed the wastewater implementation bill language provided on the handout, “*Onsite Wastewater System Implementing Bill Language and the Wekiva BMAP.*” Highlights:

- Funding has been provided to the Department of Health to continue the study that began last year to complete the project.
- The Bill, Chapter 2008-59 Laws of Florida, states that, during the FY09-10 fiscal year, no state agency can adopt or implement a rule or policy that mandates new nitrogen reduction limits applying to onsite sewage systems that increases the cost of treatment before the study is completed. This language is repealed on July 1, 2010.
- BMAP adoption is not expected within this fiscal year so the Bill does not affect the BMAP process. This means that on-site systems won't be required, but local government or entities may propose wastewater type projects for consideration.

Jennifer Gihring reviewed the *Wekiva BMAP Implementation Approach* handout. This handout describes allocation and “sufficiency of effort” issues for this BMAP to provide an outline for stakeholders to determine the extent of their obligation under this BMAP. Highlights:

- Some stakeholders have jurisdiction only within the springshed, watershed only, or within the spring and watershed. Level 1 stakeholders are those who only discharge to the springshed. Level 2 stakeholders discharge to the surface watershed.
- Level 1 entities will focus on pollution prevention and level 2 entities will focus on treatment and pollution prevention.
- This is a technology based approach so the obligation to stakeholders will be to implement BMPs, not to meet a quantitative allocation.

Q&A (Working Group only; responses provided by Jennifer Gihring)

Considering that there will be a 14 year period before anything we do affects the water coming out of the spring how are we going to evaluate these efforts?	This is precisely why we cannot take a quantitative approach. The projects we propose are proven BMPs known to reduce nitrogen. We will also have ongoing sampling and testing to be sure that we are moving in the right direction. As our TMDL sampling purposes are met, the Department is working towards retooling our sampling resources towards BMAP monitoring.
The second item [on the handout] is to enroll 100% of agriculture producers in the agricultural BMP program. While this is our (DACS) intention, it is an ambitious goal, though we will continue to work towards this.	Comment – no response required.
In reference to the ‘Sufficiency of Effort’ section (on handout), would it be better to reword it to emphasize BMPs that are applicable to that jurisdiction. For example, DOT is not in the position to develop Florida Friendly landscaping so would we be deficient in this BMPs?	On page 1 of the handout, it states that all stakeholders must implement BMPs applicable to their jurisdiction. However, we will make sure that the wording is clearer in light of the comments from the DOT and DACS. We encourage all input on this document from our stakeholders to ensure that it is correct and acceptable.
At what level are we splitting up these BMPs among entities [<i>referring to page 3 of handout</i>]? Is it up to local government to tell different agencies to do this or should these practices fit within the scope of our work?	That is the level of detail that we hope to include as we move forward. It does no good to include anything that is not achievable. In future meetings, we will get into more detail to be able to fully understand and apply these BMPs.
Will this process be open to reevaluation if new research is available? Chris mentioned a study that will determine the effects of reuse. Depending on what is found there, would we reevaluate the adopted BMAP?	Yes, that is exactly the Phase 2 concept. Anything that provides new tools will be used if and when they become available.

Action Items:

Responsible Party	Item	Deadline
Working Group Members and Other Attendees	Provide comments to FDEP re: the Implementation Approach	ASAP

3:50 – 4:00 Wrap up – Kathy Harrigan, SAIC

- Review of next steps
- Open Comments and Questions (5 minutes)

Action Items:

Responsible Party	Item	Deadline
Robert van den Akker	Continue follow-up on entities	ASAP
Jennifer Gihring	Put recording, presentations, etc on FTP site	ASAP (<i>post-meeting note: information available on FTP site</i>)

Next meeting: August 19, 2009; 1:30 PM;
Fran Carlton Center, 11 North Forest Avenue, Apopka, FL 32703

For more information contact:

Jennifer Gihring

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<ftp://ftp.dep.state.fl.us/pub/water/BMAP/Wekiva/>