

Lake Jesup, Crane Strand & Long Branch BMAP
Working Group Meeting
Thursday, September 20, 2007
1:00 PM – 4:00 PM
Sylvan Lake Park - 845 Lake Markham Rd., Sanford, Florida

Attendees

Bill Baer, Altamonte Springs
Julie Bortles, Orange County
Sherry Brandt-Williams,
SJRWMD
Kelly Brock, Casselberry
Rebecca Burnett, Aquafiber
Technologies
Tiffany Busby, Wildwood
Consulting
Dan DeCiry, Seminole
SWCD
Tim Egan, Winter Park
Bill Fagan, Aquafiber
Technologies
Chris Ferraro, FDEP
Brian Fields, City of Winter
Springs
Mark Flomerfelt, Seminole
County
Jennifer Ghiring, FDEP

Matt Hassan, Orange County
Ed Hayes, FFWCC
Migdalia Hernandez, City of Sanford
Dan Homblette, Orange County EPD
Danielle Honour, CDM
Robert King, Friends of Lake Jesup
Steve Lienhart, URS Corporation
Regina Lovings Morse, SJRWMD
Scott Lowe, Manhattan College
Kevin McCann, City of Orlando
Kim Ornberg, Seminole County
Vincent Peluso, City of Oviedo
Zynka Perez, City of Winter Springs
Penny Post, Orange County
Robert Potts, E-Sciences
Mike Thomas, PBS&J
Amy Tracy, FDEP
Shannon Wetzels, Seminole County

The meeting began at 1:05 p.m.

Welcome and Introductions; Updates

Tiffany Busby thanked Seminole County for providing the facility. Introductions were made. Tiffany asked if there were any questions regarding TMDLs since the last meeting. None were raised.

One on One Meetings

Jennifer Ghiring gave an update on the one-on-one meetings. The City of Eatonville is very interested in elevating their MS4 permit efforts. The main point is that they are a very small municipality. Jennifer stated that she would like to figure out a way for them to participate in the BMAP without having to attend every meeting.

FDOT One on One Meeting Follow Up

Regina Lovings Morse coordinated a meeting with the FDOT and the Turnpike District to talk about how to meet their TMDL allocation when it is determined and their possible participation in regional treatment projects. The goal is to use uplands at a property in the Howell Creek watershed as water quality treatment, and the wetlands as mitigation credits. Tiffany said that the SJRWMD is

restrained in their ability to purchase land by statute as is FDOT, but the restrictions are be different, possibly enabling them to partner in the purchase.

Site 10 Update

Jennifer stated that the FDEP has not been able to go onto the Site 10 property as there has not been enough water and that groundwater sampling will continue when conditions warrant.

Other Updates

Kim Ornberg said that the Seminole County Bear Gully monitoring started in September. Sherry Brandt-Williams stated that the SJRWMD nitrogen fixation study draft report should be ready next week and that the Working Group will have the opportunity to review it in the next few weeks. She also stated that she anticipates funding for the sediment flux study by November or December 2007.

Migdalia Hernandez asked what point during the BMAP process will involve discussion in usage changes for Site 10. Tiffany replied that you can list this project in the BMAP in reducing your load, but the question is how those loading estimates will be calculated. Jennifer said that there must at least be results from the groundwater study for Site 10 in order to properly estimate the loads from Site 10. Calculations for allocations will be done by the FDEP, but with input from the group. Migdalia asked if allocations and BMAP projects will be done regionally or by specific entity. Tiffany said that that has not yet been decided.

Creation of a Steering Committee/Sunshine Law

Tiffany explained the implications of the Sunshine Law on the BMAP Working Group. This topic was briefly discussed at the last meeting. The main concern is that if the regular working group members fall under the sunshine law, they cannot talk amongst themselves regarding the BMAP outside of regular meetings. The intent is to leave flexibility for working group members to be able to discuss issues outside the meetings. One plan is to keep current working group membership, and to create a voting member group consisting of "higher level" staff and management; i.e., those who are not involved in the day-to-day issues and logistics of constructing the BMAP. The cross-benefit of this is that it engages management so that they know what is going on. The voting group would meet less regularly than the Working Group. It will require that each entity to designate a voting member as we are begin to talk about allocations. Tiffany handed out a list naming potential members. Tiffany asked the Working Group for thoughts or ideas. Kevin McCann asked if he could talk to his supervisor outside of the meetings. Tiffany said yes; the main restriction is that voting members cannot talk amongst themselves outside of their "sunshine" voting group meetings.

Julie Bortles suggested that the group names be the same as used in the Ocklawaha so there is little confusion for those involved with other BMAPs. Brian Fields asked who gets a vote. Tiffany stated that ultimately it is the decision of

FDEP, but they would rather the group come to a consensus. The desire is that membership be limited mostly to those who are affected by the BMAP. Brian said that there are basically three types of entities that are currently working group members: those financially impacted, those not financially impacted, and interested parties. Jennifer asked the members if they thought that only those financially impacted, or “writing a check” be given a vote. She also said that the Working Group should decide which “interested parties” should be involved in the voting process. Tiffany asked the group if there was concern by having voting members who do not have a financial interest. Kim said that there was concern; however, she does not have an objection to the Friends of Lake Jesup, since Robert King has been involved from the beginning. Robert stated that as long as his group’s concerns are considered by voting members, he does not feel his membership in the voting group is necessary. Jennifer said that each member at least should have an interest from a water quality standpoint. Kim asked if the voting group will include all watersheds. Jennifer replied that Long Branch and Crane Strand would be separate. Tiffany asked if there would be anyone on the voting member list not to be included. Dan DeCiryran stated that he can’t, but he would like to leave his agency on there. Brian asked why the Soil and Water Conservation District (SWCD) is included as they are not a financially responsible party. Kim agreed. Robert King asked who will be in charge of the day-to-day operations of the voting group under sunshine. Jennifer said the responsibility lies with the FDEP.

Tiffany suggested that that the voting group could contain a small amount of slots for non-financially responsible parties. Currently, there are 15 financially responsible parties (including the Florida Department of Agriculture and Consumer Services), three agencies (FDEP, SJRWMD, and FWC), and two special interests (Friends of Lake Jesup, and Seminole SWCD). After a brief discussion, the working group decided to keep the two seats for “interested parties.” Tiffany asked if there were any other recommendations. None were raised. Tiffany asked the group if the county Departments of Health (DOH) should be included. Chris Ferraro pointed out that local governments are more likely to deal with septic tank issues. The working group then decided by consensus vote to leave DOHs as non-voting participants. Tiffany asked the group to look over the suggested voting member list and confirm if the right person to be a member is listed. Jennifer said that the voting group meetings would likely be quarterly. Once the group is ready, Jennifer and Tiffany will put together a small executive summary for the voting members. Jennifer stated that current working group members are allowed to attend sunshined meetings of the voting group.

Lake Jesup Modeling Results and Nutrient Reduction Scenarios

Kim introduced the project scope and the guest speaker, Scott Lowe. Scott is a Professor at Manhattan College and also does water quality modeling training.

The model used in the study is called QUAL2K. It is an EPA water quality model and is the most used in the world. It has been around in other versions for over thirty years. The model includes active sediment kinetics and allows transfer to and from sediment. The downsides are that the model is complex to set up and run, and it is steady state, not time-variable.

Scott explained that solids settle from the water column into the sediment, and dissolved material can flux back into the water column. This includes NH_4 , PO_4 , and NO_3 . The Lake Jesup basin was delineated into three geographic sections for the modeling study. Import sources for the model include the TMDL and the recent model done by Joe Walter of PBS&J. Nitrogen and phosphorous loads include surface runoff, groundwater and atmospheric deposition. Groundwater and atmosphere account for roughly half of the loading.

Several load reduction scenarios were presented, including percentage reductions in Chlorophyll a, TN, TP, Sediment Fluxes, and TSI. Surface water reductions are buffered by the fact that roughly 50% of loading is from groundwater and atmospheric deposition. However, it is likely that as surface water loads are decreased, groundwater figures will also decrease. Lake Jesup can be described as “the perfect bioreactor.” The lake has a roughly 100-day detention time; it is shallow, with an average depth of six feet; and solids and algae settle at a rate of approximately one foot per day. All of this combined results in roughly 95% of solids and algae being trapped in the lake. Warm water and lots of sun create perfect conditions for algae growth. Also, as the lake is shallow, the wind stirs up sediments and creates fluxes.

Scott stated that there can be a reduction in TP, but a lot of TP is cycling around now as it is. Sherry said that some models say that more TP can be taken out. She also mentioned that the SJRWMD did a study and found no correlation between wind disturbance and sediment re-suspension. Scott replied that specific wind was not included in the model for this study. He went on to say that wind is just an additional factor, especially in shallow lakes. Mark Flomerfelt asked for clarification on delineating the lake in three study sections. Scott said simply that they were modeled separately but the same. Jennifer asked what the model tells us in relation to the TMDLs. Scott replied that it was originally thought that sediment was a big factor. Also, was it historically eutrophic? He stated that there is a lot of room for loadings that we don't know. You can change the loads put into the model and the scenario can be quite different. In shallow surface systems, elements can change dramatically. Core samples show that 100 years ago, the lake was eutrophic. Typical to this type of lake, a restoration cannot be done in a short period of time. It is possible to see results within decades, but it is likely to be measured in terms of centuries. It will take a long time for the lake to respond. Tiffany thanked Scott, Kim, and Mark for the presentation. Tiffany or Jennifer can provide copy of presentation to the group's ftp site.

Break from 2:50 to 3:00

Tiffany stated that as time is short, the next section “Lake Jesup Watershed Detailed Water Quality Analysis” will be deferred.

Allocation Strategy

MS4s are considered point sources in the BMAP and stormwater is the main component of loads to the lake. The Working Group should decide how allocations are divided up. The handout entitled “Lake Jesup TMDL Allocation Strategy-Options for Discussion” shows a baseline for discussion on how allocations should be made. Four steps are outlined. The intent is to balance what we know and what we don’t know. The four steps are sequential. For example, if enough load reduction is accomplished in steps 1 and 2, you don’t have to go to steps 3 and 4. However, if you go through steps 1, 2, and 3, and there are still load reduction obligations, you have to decide one of the options in step 4, or a combination of the two. Kim asked about leveling the playing field in terms of maintenance activities, for example, comparing large municipalities to small infrastructure. Tiffany stated that some activities may have to be qualitatively evaluated. For instance, if the Working Group decides that all MS4s need to be treated the same, then entities should decide what regional projects they should buy into.

Kim stated that the Florida Stormwater Association (FSA) is coming up with load reduction numbers that can be attributed to activities that municipalities do such as stormwater pond cleaning and street sweeping. Mark mentioned that street sweeping is a good example because it was not originally included in the TMDL model. This will be especially good for those doing a good job in their MS4 program. Tiffany asked the group if there is a need to level the MS4 playing field in terms of effort. Kim pointed out that no MS4 activities were included as part of the original model. Migdalia pointed out that Site 10 could be considered part of Sanford’s load into the lake, including it in the reductions. Brian said that success should be based on performance and results that the activities produce. He also mentioned that steps 2, 3, and 4 could also be considered concurrent activities rather than sequential, depending on the situation.

Kim said that there is an economic cost evaluation underway which will compare the cost of keeping one pound of phosphorous out of the lake vs. removing one pound. Jennifer stated that there is no set way the reductions have to be done, it is up to the Working Group. Tiffany asked if we are close to quantifying the level of effort in each MS4. Jennifer stated that what is being reported to FDEP is being used as a baseline. Jennifer said that project information has been coming in lately, and what questions does the group have as far as what projects to put on the BMAP list. Issues noted were: Where is the project? What is the cost? Is there performance data to justify potential projects? Projects that qualify are those conducted after the TMDL was implemented (end of 2004); projects which

are complete or are in the construction or planning stages. Submitted project lists should be more inclusive.

Sherry asked how we are going to prove what the proposed projects are doing. Jennifer replied that the BMAP will have a monitoring component, and will be revisited every five years, but she pointed out that not every project can be quantified post-construction. The monitoring and assessment will be regional, but basin-specific. Sherry asked about the non-quantifiable projects such as public education. Tiffany said that although these may be difficult to quantify, they may be a key way of accomplishing load reductions. In the Wekiva Basin, FDEP will study a neighborhood that gets a public education program in fertilizer application, and one that doesn't, and will get pre- and post- sampling data to evaluate effectiveness. Jennifer stated that if the Working Group feels it is ready, she can bring the allocation numbers to next month's meeting. The group can evaluate what an area-based reduction would look like based on land use. She said that the more detailed water quality data will give us an idea where we want to do projects and that projects will be looked at by waterbody. Kim asked if agriculture will get its own allocation. Jennifer replied that yes, it will.

Tiffany stated that the next meeting will be held on October 24 at 1:00 p.m. at Sylvan Lake Park and asked if there was anything the group would like to add to the agenda. No items were requested. Tiffany asked if there were any other announcements or questions. None were raised. Tiffany thanked everyone, and the meeting was adjourned at 4:02 p.m.