MEETING SUMMARY
Lake Jesup, Crane Strand, and Long Branch BMAP
Technical Meeting
August 28, 2008
1:00 PM – 4:00 PM
City of Sanford – Utilities Room
Sanford, Florida

Meeting Attendees

Libertad Acosta-Anderson, CH2MHill	Robert King, Friends of Lake Jesup
Mary Brabham, SJRWMD	Steve Lienhart, URS
Sherry Brandt-Williams, SJRWMD	Regina Lovings-Morse, SJRWMD
Kelly Brock, City of Casselberry	Danielle Marshall, Altamonte Springs
Tiffany Busby, Wildwood Consulting	Kevin McCann, Orlando
Fred Calder, FDEP	Durga Nagda, City of Lake Mary
Tim Egan, City of Winter Park	Anita Nash, FDEP
Brian Fields, City of Winter Springs	Kim Ornberg, Seminole County
Dan Homblette, Orange County	Zynka Perez, City of Winter Springs
Danielle Honour, CDM	Marcy Policastro, Wildwood Consulting
Bilal Iftikhar, Sanford	Robert Potts, E-Sciences
Carol Johnson, FDACS	Marissa Rodriquez, City of Maitland
Joel Jordan, RCS	Joe Walter, PBSJ
Bob Kelly, SAIC	Shannon Wetzel, Seminole County

Opening Remarks

Welcome and Introductions

Tiffany Busby welcomed the group and participants introduced themselves and the entity they represent. There were no comments on the July 24th meeting summary.

Questions on the TMDLs

Tiffany noted that the Florida Department of Environmental Protection (FDEP) had scheduled a call with Casselberry to discuss the question they raised about their weir. This call had to be canceled because of Tropical Storm Fay but a new date is being coordinated.

Kim Ornberg stated that she talked to Eric Livingston (FDEP) at a meeting this morning about education credits for Florida Yards and Neighborhoods (FYN) efforts and he provided a handout that outlines the six elements of an education program needed to receive full credit. Tiffany noted that a similar handout is provided for this meeting and they are working with Eric on how to give the Florida Department of Transportation (FDOT) credit when they cost-share in education programs or create policies that reduce nutrients. Robert Potts stated that FDOT has a statewide stormwater master plan, which includes information about their fertilizer policies.

Basin Management Action Plan (BMAP) Monitoring Plan Update

Tiffany noted that the monitoring plan is one of the key components in the BMAP because it provides information for sampling and research to provide data for the next BMAP cycle. The

monitoring plan will assess progress towards meeting the Total Maximum Daily Loads (TMDLs) once the BMAP is approved.

Marcy Policastro stated that a subcommittee has been formed to begin compiling existing monitoring station information for the plan. The monitoring plan will also include a section on current and planned research studies. Sherry Brandt-Williams has put together information about the St. Johns River Water Management District (SJRWMD) studies in the basin and has sent the research priorities table to Seminole and Orange Counties for their information. This table will then be sent to the group for other studies. In addition, FDEP has been discussing the new quality assurance (QA) standards for laboratory analysis to determine how those policies will impact the Lake Jesup BMAP. Anita Nash added that FDEP wants to ensure that the necessary QA requirements for documenting data are met. Anita noted that she will be contacting the entities to obtain information about their existing monitoring efforts to create a map of the current monitoring in the basin.

Robert King asked how the group provides feedback on the plan and research component once the monitoring plan is compiled. Tiffany responded that draft text will be provided to the group for review and input. Several entities have been asked to provide information on their studies that are underway or funded. Robert stated that he wants to make sure that the necessary information is collected to address the current unknowns for the next TMDL cycle. Tiffany responded that the group has identified data gaps and also issues that were set aside for this cycle (i.e., lake internal cycling of nutrients). This will be explained in the BMAP and linked to the research projects. An adaptive management approach will be used to address the unknowns in future cycles. Robert stated that there are hotspots where studies are needed, including areas with failing septic tanks. Tiffany noted that during the last meeting, the group discussed working with the utilities to identify septic tank locations to improve the data for the next cycle. Sherry noted that a column can be added to the research studies table in the BMAP to specify what question is being addressed by each study.

Dan Homblette stated that the new municipal separate storm sewer system (MS4) permits are being distributed in draft form by FDEP and include monitoring to determine the loads going into and out of each jurisdiction. Orange County is the first to receive this new permit and they have proposed a monitoring scheme to address this requirement. Dan suggested that the entities should try to work together to accomplish the new MS4 permit requirements and obtain data for the TMDL. Fred Calder noted that the monitoring conversations will occur throughout the BMAP process and the group will need to organize the key questions and what data collection is needed to help prioritize efforts.

Analysis of Agricultural BMP Reduction Estimates

Bob Kelly stated that he has put together a table with the agricultural commodities in the basin and their associated best management practices (BMPs) and efficiencies. The BMPs fall into three categories: owner implemented, cost share, and alternative practices. This information was provided to the Florida Department of Agriculture and Consumer Services (FDACS) as a starting point to determine realistic implementation of BMPs in the basin. Tiffany noted that she spoke to someone at FDACS and the sod manual will be adopted soon, which will affect this basin. Carol Johnson added that the in-ground nursery BMP manual will be adopted in 2009 and this

will cover a lot of the agriculture in the basin. Carol noted that they have received Notices of Intent (NOIs) for 331 acres of agriculture in the basin covering citrus and container grown plants. There are a lot of other growers that have implemented BMPs but FDACS needs an adopted manual to officially sign up the growers.

Robert King asked if Site 10 is included in the agricultural acres. Bob responded that Site 10 is classified as improved pasture but it is the responsibility of the City of Sanford and, therefore, not included in the agricultural acres.

Other Updates

Sherry stated that the SJRWMD had meeting earlier in the week on the floating island request for proposals (RFP) and there was a lot of interest. Updated information from this meeting has been posted. Sherry stated that the group can provide comments on the RFP by September 4th and she will provide this information to the review team for consideration when evaluating the proposals.

Allocations

Required Reductions (Stormwater and Septic Tanks)

Tiffany stated that the group discussed the allocation table and the loads attributed to septic tanks in the basin during the last meeting. Fred added that the group received an email from him, which indicated that they would need to revisit the septic tank loading. After the last meeting, Fred realized that the septic tank loads do need to be addressed in this BMAP to provide reasonable assurance that the TMDL can be met. One of the handouts is an excerpt from 403.067, Florida Statutes (F.S.), which states that a BMAP must show how the TMDL will be met. Following this rule is the best approach to avoid challenges to the BMAP and potentially the MS4 permits. The TMDL can be achieved through an adaptive management process, as allowed by the law. There was some confusion in the last meeting about whether FDEP would require the stormwater permittees to address the septic tank reductions. Fred stated that FDEP would not require this, and the entities have the option of determining the most effective way to achieve their overall reductions.

Kevin McCann noted that representatives from the wastewater utilities should be involved in these meetings to ensure that the total reduction does not fall onto the stormwater permittees. Orlando will be facing the question of whether the reductions should be funded by stormwater or wastewater so the correct people need to be involved. Fred responded that there is now sufficient information about the septic tank loads in the basin so it would be a good time to have the wastewater utilities involved. Tiffany asked which utilities should be contacted. Sherry suggested using the FDEP site to obtain a list of permitted wastewater facilities in the basin.

Kim noted that Mark Flomerfelt (Seminole County) had contacted the county's utility staff to obtain addresses and billing information for their wastewater customers. He used this information in a Geographic Information Systems (GIS) mapping test to identify which parcels are on sewer and which are not and likely on septic tanks. Joel Jordan added that the Department of Health (DOH) has a septic tank database that is posted on the Florida Geographic Data Library (FGDL) website, which includes addresses for tanks across the state. Dan Homblette stated that DOH should be included in these meetings to discuss the permitting of septic tanks in the future. The entities do not have much of a say in whether a septic tank permit is approved.

Kevin noted that Lisa Curtin (Orlando) also used the city's utility billing information to estimate the number of septic tanks. Lisa's estimate is very close to what is included in the allocation table. Everyone in the city has access to sewer but there are still some people who have not connected.

Kim asked how the loads from the five jurisdictions that were missing in the TMDL were calculated. Tiffany responded that Jennifer Gihring (FDEP) calculated these loads in two different ways. Maitland, Winter Park, and Orange County (based on the Winter Park information) provided the GIS layer with their sewer areas so the septic tanks were determined by subtraction. For Eatonville and Orlando, Jennifer used the DOH CENTRAX database. The total septic tank load from the TMDL is 2.7 metric tons (MT) with a 1.5 MT reduction. Adding the missing jurisdictions increased the initial load to 4.8 MT. However, this new load was only used to determine the relative percentage of septic tank loading from each entity in order to allocate the 1.5 MT reduction from the TMDL.

Durga Nagda asked what year was used to estimate the number of septic tanks because the number is always changing. Bob responded that different time periods were probably used based on the information available from each entity. There is confidence in the total load to the lake but the number of septic tanks is unknown. This will have to be refined for the next TMDL. Fred noted that there are several septic tank studies that will provide better information to determine septic tank loading. Dan stated that the BMAP should include a description of how the septic tank loads were determined. Kelly Brock asked if the septic tank loading information could be provided so that each entity can back calculate the number of septic tanks in their jurisdiction. Tiffany stated that she will send this information to the group.

Kim asked if the BMAP will specifically identify the septic tank load as separate from the stormwater load. Tiffany responded that each entity will have one allocation but language will need to be included to make the distinction that it has a stormwater component and a wastewater component. Fred noted that since the septic tank loads are a relative distribution of the 1.5 MT load from the TMDL, if an entity provides information that changes the number of tanks in their jurisdiction, it will affect all the other entities. While it is understood that the data is not perfect, any major discrepancies in the number of septic tanks should be provided. Kelly asked if the septic tank numbers are based on the city limits or where the city provides wastewater service. Fred responded that these numbers are based on the city limits and a 200 meter buffer from surface waters.

Allocation Approach

Tiffany stated that the TMDL included a 7.4 MT reduction for surface loads and 1.5 MT from septic tank infiltration into surface waters for a total of 8.9 MT. The TMDL also includes a 1.8 MT reduction from the river, which is not included in the BMAP because it is not part of the load from the jurisdictions in the basin. The allocation table reflects the 8.9 MT reduction. The first columns in the table describe the initial TMDL loads and the revised loads based on the BMAP adjustments that were discussed in a previous meeting. The BMAP adjusted septic tank load includes the loads from the missing entities. The total load column shows the starting load for the BMAP. The next series of columns is for reductions required to achieve the total 8.9 MT reduction.

Danielle Honour stated that some of the agricultural lands have buildings on them, which might include septic tanks and she asked how these were included. Tiffany responded that the agriculture allocation is only for the land use. Any buildings with septic tanks on the agricultural lands would be included as part of the load from the jurisdiction in which they are located.

Kim asked that since the septic tank load increased, should the stormwater load decrease to balance out the total load in the TMDL. Bob responded that all of these estimates have a certain amount of error (approximately 20 percent) so it would be difficult to split out the septic tank loads since they are within the error. It would be better to obtain additional information and revise the loading in the next cycle. Joe Walter added that there are also questions about the lake dynamics. While the estimated volume going into the lake from the model is close to the real numbers, it is difficult to say if the septic tank loads are close. Tiffany also noted that the septic tank studies may find that the 200 meter buffer is too wide and that septic tanks only have an impact closer to the waterbody, which would decrease the estimated load.

Brian Fields asked why the septic tank loads would not be corrected since updated information is available. Bob responded that the required reduction was based on the response of the lake to the load inputs coming in at a known time. If the septic tank loads are increased this would change the required reduction. Kim noted that the concentration in the lake is known and if the septic tank loads are found to be higher, the stormwater loads should be reduced. Sherry stated that the model would have to be rerun so it is better to work with the existing TMDL and use any new information for the next cycle. Tiffany added that this is the purpose of the adaptive management approach.

Brian stated his concern that if the surface loads are overestimated then this load could be over treated without seeing a response in the lake. Tim Egan noted that he agreed with what everyone was saying but one of the major differences between the old and new septic tank numbers is from a change in Orange County's number. Orange County is in the process of estimating the number of tanks in the basin because this number seems high. Fred stated that they do not want to change the original adopted TMDL numbers too much because this could open the BMAP to challenge by a third party. If the group can work with the revisions to the numbers that have been made, which are close to the TMDL, and also collect new information to address the uncertainties, this would be a defensible approach to achieving the TMDL.

Tiffany asked if the group agreed with this process. They would not be expected to address all the loads immediately and the implementation schedule would allow for modifications as new information becomes available. Kim stated that she agreed with this process as long as all the assumptions are clearly spelled out in the BMAP. Robert King stated that the septic tank issue is not any different than any of the other assumptions that went into the allocations so the group should move on and work on obtaining more accurate information for the next cycle. Tiffany requested that the entities provide any changes to their septic tank numbers by September 11th to allow time to adjust the allocation table before the next meeting.

Adaptive Management Project Approach and Interagency Project Development
Tiffany noted that the next set of columns on the allocation table is for the reductions from projects that have been completed/funded or planned. Another option for meeting the required reductions is the interagency projects. The regional project approach has been used in the Lower St. Johns River Basin (LSJRB) with the SJRWMD Algal Initiative. Tiffany provided a brief presentation on the Algal Initiative. This initiative gave several entities in the LSJRB options for meeting their reductions, since they were unable to determine enough projects within their jurisdictions. The Algal Initiative also provided a schedule for meeting the reductions and the entities will be held to this schedule if they choose to implement local projects instead. The costs for the projects have not been established but the SJRWMD will work with the entities to determine the most cost effective projects.

For the Lake Jesup Basin, the reductions from existing and planned projects will need to be estimated to determine what reductions the entities will need from the regional projects. Tiffany noted that Joe Walter will work with the entities to obtain information about their projects in order to estimate load reductions using data approved by Eric Livingston (FDEP). Joe added that it would be helpful if the entities could provide GIS shapefiles they have for any of their structural projects. He will also be asking for any data the entities have to help estimate reductions.

Brian asked how the credit will be distributed from the regional projects because there are a lot of unknowns with these projects and the entities need to make decisions now. Tiffany responded that this has not been discussed for this basin but for the LSJRB, the SJRWMD determined the percent of the credits based on the percentage of the overall funding that each entity contributes. Brian stated that in order to make a commitment, the entities need to know the cost-benefit of participating in the projects.

Sherry gave a presentation on the regional projects. The regional projects provide the lowest unit cost for reductions (approximately $150-$350 per pound of phosphorus) and joint projects usually receive higher considerations for federal and state funding. The entities that fund these projects will own the regional projects. Feasibility studies are planned to better estimate the reductions expected from the projects and for some of the more innovative technology, pilot projects may be used. SJRWMD will contract these studies to engineering firms at an expected total cost of $12 million. The projects that will be constructed will be determined based on the information from the feasibility studies and the reductions needed by the entities. The feasibility studies should be complete in about two years. Sherry noted that the land has already been purchased for the Solary Canal project and the design is 90 percent complete. SJRWMD is working on the details with interested entities (Seminole County, Winter Springs, and Oviedo). The schedule for the regional projects includes 2-3 years for feasibility studies, 2-3 years for design, and then construction. The number of credits and cost per credit will vary by project. Tiffany added that once the cost information is available, the entities that included the regional projects to meet their allocation can decide if they want to buy into the project. If an entity chooses not to participate, they will have to meet the regional project schedule with their own projects.

Tiffany asked if the group agrees with the approach for the allocations. Tim stated that the biggest question is the load coming from each tributary by jurisdiction and he asked how changes in the loading would be addressed in future cycles. Fred responded that one of the goals of the monitoring plan will be to obtain more information about transport and cycling in the tributaries. This information will be used in the next cycle of the TMDL and allocations. Tiffany added that the entities should list projects to address known problems with a reasonable schedule. The entities can also list projects with longer schedules to allow time to incorporate new information obtained from the monitoring. However, each entity must provide a complete project list to address their entire reduction.

Kim stated that in past meetings, the group was told that they did not have to address their entire reduction in this BMAP. Tiffany responded that the rule Fred presented earlier states that a BMAP must address the entire TMDL. The schedule included in the BMAP can go out more than five years to allow flexibility. Sherry added that the entities can list the regional projects to meet the reductions. Kim noted that she does not want to list projects they may not implement. Fred stated that there are regional projects across the state that have long timelines. FDEP knows that a lot can change between BMAPs and each BMAP will include new assumptions and revised projects, if necessary. Kevin stated that there needs to be language in the BMAP to reflect this. Tiffany responded that the BMAP will include assumptions made in the BMAP along with considerations for future cycles.

Tim noted that the required reductions cannot be achieved with current BMPs so the entities will have to include regional projects. Sherry stated that the regional projects will be cost effective so it would benefit the entities to include these projects. Kim noted that several entities do not believe the load is coming from stormwater but from processes in the lake. Carol asked how residual phosphorus from old agricultural land is being addressed. Kim responded that there are research projects on this issue but this source is not included in the allocation.

Kim asked if the entities can only list projects or if strategies can be included, such as studies of baseflow in old agricultural areas. Tiffany responded that those types of studies can be included in the research portion of the BMAP but each entity needs to show how they will achieve their total reduction. The information from the studies will be used to adjust the load reductions, if necessary, in future BMAPs. Fred noted that using the regional projects provides flexibility while more information is obtained. If the BMAP backs off of the rule (403.067, F.S.) then the BMAP, and potentially the permits, can be open to challenge.

Tiffany asked if the group could support the process that was used to allocate the surface loads and septic loads. Kelly stated that he would like to hold off on a decision until he can discuss the Casselberry weir with FDEP. Kevin noted that it is difficult to make a decision without having wastewater staff present. Durga stated that Lake Mary has been collecting grab samples for approximately one year that show that the loads coming out of the area are lower than what is coming in because of the wetlands. Using actual data is better than modeling information. Kevin stated that he agrees septic tanks should not be located on the lake but it is difficult to quantify what load the tanks are contributing.

Tiffany stated that the group will need to think about what areas should be monitored to better understand where the loads are coming from. The BMAP must show how the TMDL will be addressed while allowing enough flexibility in the schedule to collect information to refine the TMDL. The group will bring concerns about the loads to the next meeting to discuss how best to incorporate these into the BMAP and monitoring plan.

Next Steps

Next Meeting Agenda Topics

The topics for the next meeting include further discussions about the allocation table and the data gaps that need to be addressed by the monitoring plan. A future meeting topic was proposed to discuss the unknowns in the basin and what studies are being conducted to address them.

Next Meeting Date

The next meeting is scheduled for September 25th at Sylvan Lake Park.

Announcements and Adjourn

The meeting was adjourned at 4:40 PM.

Action Items

1. Sherry Brandt-Williams, Kim Ornberg, and Julie Bortles will consider adding a note in the research project summary that includes a description of the research gap that the project is designed to investigate.
2. Dan Homblette will send Sherry Brandt-Williams a copy of the draft Orange County MS4 permit.
3. The group can provide comments to Sherry Brandt-Williams on the SJRWMD floating island RFP by September 4th.
4. Tiffany Busby and Marcy Policastro will look up permitted wastewater facilities in the basin using the spreadsheet on the FDEP site.
5. FDEP staff will determine which utilities and DOH representatives should participate in the Technical Working Group.
6. FDEP staff will review the Basin Working Group membership to determine if it should be revised to better represent stormwater and wastewater divisions for each entity.
7. Tiffany Busby will send information to the group about how the loads from septic tanks were calculated.
8. Sherry Brandt-Williams will provide the septic tank setback distance used in the HSPF model.
9. The Technical Working Group should provide any changes to the septic tank information by September 11th.
10. The Technical Working Group should provide information about what their concerns are about the loads to lake to discuss how to address these data gaps in the monitoring plan at the next meeting.