

Springs Coast Basin Joint Basin Management Action Plans (BMAPs)
Meeting Summary – Crystal River/Kings Bay and Weeki Wachee and Aripeka Springs

Thursday, March 2, 2017 at 9:00 AM

*Southwest Florida Water Management District (SWFWMD) Headquarters, Board Room
2379 Broad Street, Brooksville, FL 34604*

Attendees

Gene Altman, SWFWMD	Jeff Harris, Pasco County
Eban Bean, UF/IFAS	Janet Hearn, ATM
Vanessa Bessey, FDACS	Dan Hilliard, Florida Springs Council
Clay Black, Hernando County	Anne Holbrook, Save the Manatee Organization
Alys Brockway, Hernando County	Steve Kataro, FDOH-Hernando
Richard Busche, Kimley-Horn	Rick Kirby, Hernando County
Leigh Brooks, FDACS	Terri Lowery, Jones Edmunds
Dave Bruzek, Duke Energy	Mary Lusk, UF/IFAS
Will Bryant, FDOH-Citrus	Christine Lynch, Pasco County
John Burnett, Hernando County	Brian Malmberg, Hernando County
Tiffany Busby, Wildwood Consulting	Christina Malmberg, Citrus County
Neerav Caesar, FDOH-Pasco	Whitey Markle, Sierra Club
Jon Campbell, FDOH	Sky Notestein, SWFWMD
Ken Cheek, Citrus County	Randall Olney, Citrus County
Maxine Connor, Sierra Club and Citrus League of Women Voters	Gordon Onderdonk, Hernando County
Stefi Depovic, FDOH	Will Poon, FDOH-Pasco
Jon Dowler, Brooksville	Anthony Rios, ECS
Sarah Faraji, Amec	Jeff Rogers, Citrus County
Cathy Foerster, Wildwood Consulting	Mark Schroder, Citrus County
Xueqing Gao, FDOH-Tallahassee	Mary Szafraniec, Amec
Roxanne Groover, FOWA	Dawn Velsor, Hernando County
Melissa Gulvin, SWFWMD	John Walkinshaw, GPI
Terry Hansen, DEP	Bonnie Wolf-Pelacz, FDACS

Introduction

Tiffany Busby opened the meeting at 9:06 AM by welcoming everyone. She stated that this is a public, joint BMAP meeting for the Springs Coast area for Weeki Wachee and Aripeka Springs (WW) and Crystal River/Kings Bay (CR/KB). She stated that these BMAPs are the first springs-related BMAPs prepared under the new (2016) legislation. She stated that the Florida Department of Environmental Protection (DEP) intends to distribute draft BMAPs for WW and CR/KB in a couple months. The purpose of this meeting is to review pollutant load reduction milestones, stakeholder projects, future growth strategies, and land acquisitions to improve water resources. Upon review of the handouts, you will see the information we have and where there are data gaps. Regarding the handouts, we anticipated 35 attendees and have depleted our supply; however, the handouts are posted to the DEP public access site.

Tiffany thanked SWFWMD for arranging the meeting room. She reminded attendees to sign in and to provide their email information should they desire to be on the DEP contact list to receive meeting notices. She also requested that attendees let her or Terry Hansen, DEP basin coordinator, know if they are not receiving emails notices through the DEP GovDelivery system. She introduced herself and Terry Hansen and requested that each person in the room introduce them self.

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Tiffany then introduced Roxanne Groover of the Florida Onsite Wastewater Association (FOWA) for an announcement. Roxanne announced that FOWA will host an open house at its training center on March 15, 2017, which is located in Lake Alfred, Florida, off Interstate 4, exit 48. The open house will begin at 9:00 AM and will include a working lunch. Participants will be able to view demonstrations of different onsite wastewater technologies and speak directly with vendors and contractors. In addition to individual septic systems, there will be information available on decentralized/cluster systems. Please email Terry if you would like to participate. If March 15, 2017, does not work well with schedules, Roxanne stated that she could coordinate an alternate date. Whitey Markle requested a presentation on available wastewater technologies. Roxanne and Tiffany responded that Roxanne presented on such a few months ago, and her presentation is available at the DEP public access site.

Pollutant Loading and Reduction Milestones

Terry presented a series of slides on pollutant loading and reduction milestones for both CR/KB and WW. He stated that the numbers are initial, starting estimates for both pollutant loading and needed reductions. In CR/KB, the estimated load to groundwater is 600,000 pounds of nitrogen per year (lb-N/yr); the estimated total maximum daily load (TMDL) to groundwater is 200,000 lb-N/year; therefore, approximately 400,000 lb-N/yr needs to be reduced over the next 20 years. The DEP goal for all springs-related BMAPs is to achieve a 30 % reduction in the first five years, an additional 50 % within 10 years (80 % total), and the remaining 20 % within 15 years. The BMAPs will be reviewed annually and rewritten every five years. He stated that atmospheric deposition (AD) is an uncontrollable load which will not be addressed during the first five years. It is assumed that stormwater projects will offset AD and urban turfgrass fertilizer loading.

The WW BMAP includes pollutant loading and reduction milestones for Aripeka Springs as well as WW Spring Group. For WW, the estimated load to groundwater is 940,000 lb-N/yr; the estimated TMDL to groundwater is 103,000 lb-N/year; therefore, approximately 837,000 lb-N/yr needs to be reduced over the next 20 years. Though Aripeka Springs is not an Outstanding Florida Spring (OFS), it is included in the WW BMAP due to proximity to WW. For Aripeka Springs, the estimated load to groundwater is 138,000 lb-N/yr; spring flow is too irregular to accurately calculate the TMDL load. Since Aripeka Springs is not an OFS, nitrogen reductions are not required over a 20-year period; however, they are recommended.

The geographic areas within the DEP Nitrogen Source Inventory Loading Tools (NSILTs) for CR/KB and WW include the entire BMAP study areas. In other BMAPs, there may be areas outside of the NSILT, but within the BMAP study area that will be addressed.

Terry explained slides for CR/KB and WW in which he estimated for the first five-year milestone, known options for load reduction per source category, how much total credit would result from these reductions, and the gap between the total amount to be reduced per category and estimated credits. His take home message is that a lot more work needs to be done to achieve reductions for each source category in both BMAPs. Within each BMAP document, obligations will be identified for each entity by source, by milestone. Today's focus is on the five-year milestone.

Septic Systems

There will likely need to be a combination of system enhancement and replacement to meet the five-year reduction milestones in both BMAPs. DEP is of the opinion that the under drain field liner is the simplest solution for enhancement, but the liner is not yet permittable by the Florida Department of Health (FDOH). FDOH needs to complete its rulemaking to allow the liner system, hopefully by August 2017. Septic to sewer conversion plans are necessary.

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Terry inquired of each local FDOH attendee the coordination that occurs between FDOH and applicable local governments when a septic permit application is under evaluation for a property that has the ability to connect to central sewer. FDOH-Citrus County responded that it routinely coordinates with the Citrus County Utilities Department and will not issue a septic permit if sewer is available. Ken Cheek elaborated that Citrus County requires mandatory connection to central sewer within 365 days of availability. FDOH-Hernando County responded there is not much coordination with the local utility department since there is not much available sewer. Roxanne stated that it is customary throughout Florida that if sewer is available, the local FDOH office will not issue a septic permit unless the wastewater treatment facility (WWTF) is at capacity. If sewer will not be available for a minimum of two years, a septic permit will be issued. FDOH-Pasco County responded that it coordinates with the local utility consistent with Roxanne's answer. Terry asked if there should be a grace period between installation of a new septic system and required connection to central sewer so there is not an undue burden (cost) on the consumer. Roxanne responded that the Florida Keys is a good example of coordination between FDOH and the local utility on the topic.

Urban Turfgrass Fertilizer (UTF)

Terry stated there is uncertainty regarding input data in the DEP NSILT reports for UTF and golf course fertilizer. An entity can achieve 6 % total credit for UTF if it enacts a fertilizer ordinance, landscape ordinance, irrigation ordinance, pet waste ordinance, public education, and implements the Florida Yards and Neighborhood Program. Each ordinance counts as 0.5 % credit. Terry stated that if a local government has adopted a fertilizer ordinance that is more stringent than the DEP model ordinance, reductions need to be documented to justify an increased credit associated with the ordinance as well as overall effectiveness. Within the first five-year period, DEP needs to work toward better data and additional measures should be developed that will reduce fertilizer application.

Sports Turfgrass Fertilizer – Golf Courses

Terry acknowledged there are data gaps for golf courses and DEP is determining how best to obtain real numbers for fertilizer application on each golf course within the study areas. Also, there needs to be documentation of relevant BMP implementation. Accurate fertilizer application reporting will likely achieve the needed reduction in the first five years.

Farm Fertilizer

Terry stated that agriculture is a small contributor of nitrogen loading in the Springs Coast, but it is a source nonetheless. DEP is working with the Florida Department of Agriculture and Consumer Services (FDACS) on potential projects; however, those projects have unknown benefits at this time. Terry stated there is a pollutant reduction gap with FDACS on all BMAPs because their statutory obligation is to only ensure that agricultural producers implement best management practices (BMPs). Implementation of BMPs will not result in the needed reductions within the required milestones. The 2016 legislation now requires FDACS to work with DEP and water management districts on projects and better BMPs. Tiffany stated that the reduction gap can be closed with additional agency coordination. For example, in the Lower St. Johns River (LSJR) Main Stem BMAP, FDACS provided cost-share dollars for St. Johns River Water Management District (SJRWMD) to work with agricultural producers on fertilizer application and use of specialty irrigation equipment that have been effective in reducing loading in the Tri-County Agricultural Area (Putnam, St. Johns, and Flagler Counties). Terry responded that the Springs Coast area has an interesting challenge since there are not a lot of irrigated agricultural lands. He said that the Springs Coast will be a good test case since there are limited reduction options for agriculture.

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Livestock Waste

Terry stated there are no verifiable reductions associated with BMPs for livestock waste. Through the FDACS verification process, there needs to be documentation of reductions from BMP implementation. Also, additional BMPs need to be developed and implemented.

Atmospheric Deposition

This is a locally unmanageable nitrogen source. Options being evaluated include stormwater denitrification to help reduce overall loading.

WWTFs

WWTF reductions should be achievable through system upgrades and underperforming plant closures, and ideally will provide greater reductions than the source category indicates are required.

Questions/comments by attendees

1. Ken: Did the WWTF source calculations take into consideration upgrades already made, such as the 2009 upgrade to the Meadowcrest WWTF which resulted in several septic systems being taken off line? Terry: More than likely, the CR/KB NSILT took the Meadowcrest project into consideration since the NSILT was completed in 2016. I will confirm this with DEP groundwater staff.
2. Gordon Onderdonk: The new legislation states that a septic system is prohibited on a parcel less than one acre in size when located in the priority focus area (PFA). Are septic systems prohibited in a platted subdivision if the parcels are in the PFA and less than one-acre in size? Terry: Conventional septic systems are prohibited, but advanced treatment/new technology septic systems are allowed.
3. Will Bryant: DEP needs to consider the legality if a permit for a conventional system can be denied under current rules. Terry: New septic systems have to meet the conditions in the BMAP, which are still being finalized related to smaller, platted lots. Tiffany elaborated that new systems will add to the pollutant load and DEP is determining the balance between new system requirements and loading.
4. John Burnett: What is the life span of the media used in the new advanced systems? Xueqing Gao: Thirty to 100 years; the media lasts as long or longer than the life of the system.
5. Jon Dowler: What are the detrimental effects of the new technology? Terry: Media options are wood chips or carbon source used in denitrification process. Xueqing: The only effect known thus far is a slight increase in organic carbon.
6. Gene Altman: Has a cost-share strategy been established yet for projects? Terry: There is not a cost-share strategy yet. DEP needs to understand the proposed projects and costs to request funding from the Florida Legislature. Tiffany: There is currently springs funding available for wastewater and sewer upgrades; subsidy to homeowners for septic system enhancement; and pay staffing costs associated with administering a homeowner subsidy program.
7. Dan Hilliard: Can DEP facilitate jurisdictional collaboration in this process? Terry: Collaboration is inherent in the grant application process.
8. Jeff Harris: Will funding be administered through DEP or a water management district? Terry: It is anticipated that DEP will administer the funding unless a water management district applies for funding as the lead entity. Tiffany: Think of the funding in terms of a the "block grant" concept. DEP will provide money to an entity to manage on behalf of recipients. Terry: The DEP funding agreement with Leon County and Northwest Florida Water Management District (NWFWM) will be the template for future agreements. I will post this agreement to the DEP public access site.
9. Gordon: Is there research available on application rates for different types of urban fertilizer? Mary Lusk: Research is available on fertilizer application on different types of grasses. The main variable is not the grass type, rather it is the age of the turf. Newer lawns tend to hold nitrogen better. Sarah Faraji: Established new sod holds TN better than newly installed sod.

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10. Gene: In the Rainbow Springs area, FDACS and SWFWMD provided cost-share funding for commercial equine composting. Was this type of project cost-shared in the LSJR area? Tiffany: SJRWMD was the key player and the cost-share focused on row crops, not equine. DEP provided money too; FDACS brought the growers together.
11. Gene: Could there be an increase in cost-share funding if implementing advanced BMPs? Tiffany: Yes, there could be an increase in funding for advanced BMPs.
12. Roxanne: There is legislation in play this year (House Bill [HB] 551) that includes geographic areas not included in the enacted 2016 legislation. The Aripeka Springs area could be included as a priority area. Terry: DEP and FDOH are monitoring HB 551.
13. Will: Permit denial letters include an option for a customer to install a performance-based system. Will the block grant funding apply toward septic enhancement? Terry and Tiffany: The block grant-style funding can be used for septic enhancement.
14. Mary: Is the "other science" section in the BMAP a discussion of science and research that needs to occur? Tiffany: The section identifies known research that was reviewed during preparation of the BMAP. For example, on behalf of DEP, Amec Foster Wheeler (Amec) is developing the methodology to estimate reduction credits associated with stakeholder projects. The basis of this methodology will be included in the "other science" section in the BMAP.
15. Clay Black: Are projects in the west zone/discharge zone eligible for funding? Terry: Yes, any project within the BMAP study area is eligible for funding.
16. Gordon: Projects do not have to be in the PFA to receive funding? Tiffany: Projects do not have to occur in the PFA to receive funding. Delineation of a PFA is statutory requirement to focus OSTDS remediation efforts and establish prohibited uses. The BMAP boundary is the jurisdictional boundary for funding opportunities and projects.
17. Christine Lynch: When can we see the PFA maps? Terry: They are posted on the DEP public access site.

Handouts

Source Reduction Projects and Education Projects

Tiffany walked the attendees through the handouts that reflect source reduction and education projects received to date for each BMAP. She stated that Cathy Foerster emailed pre-populated project workbooks to all stakeholders for review and editing. Citrus County (source reduction projects), Hernando County, and FDACS still need to review their workbooks and respond to Cathy. For those stakeholders that provided information (Pasco County, Crystal River, Brooksville, University of Florida/Institute of Food and Agricultural Sciences [UF/IFAS], SWFWMD, and Citrus County [education projects]), please review the handouts and indicate if revisions are needed. There are not too many projects identified for the 10- and 15-year milestones. The estimated nitrogen load reduction for each project will need to account for attenuation and recharge to be consistent with the NSILT calculations. DEP will identify individual golf courses and sports fields in the project tables.

Leigh Brooks stated that the UF/IFAS project that is identified in both BMAPs for both urban turfgrass and sports turfgrass needs to be reviewed for accuracy in terms of dollar amount associated with each entry. Cathy thanked her for the comment and mentioned that she too had flagged that as a project that required follow up.

Dawn Velsor inquired as to when the stakeholders will see all projects for determination of partnering opportunities. Terry responded that the projects will be routed for review prior to BMAP adoption.

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Tiffany mentioned that projects are reevaluated each year. Terry stated that the 2016 legislation allows five-year extensions for each project identified in an adopted BMAP.

Gordon asked if a project's start date is commencement of construction or when planning and design occur. Terry responded that the start date is when initial project planning begins.

Future Growth Strategies and Land Acquisition

Cathy explained that she populated the future growth strategies handout upon review of the stakeholders' comprehensive plans and available ordinances. Cathy will follow-up with Crystal River since their comprehensive plan is not accessible on-line. Cathy requested review and input on the strategies.

The land acquisition handout reflects completed and proposed purchases by Pasco County since 2012. Cathy stated that Crystal River and Brooksville indicated they had no acquisitions; Hernando County provided information on a potential acquisition prior to the meeting. Cathy requested feedback from Citrus County and SWFWMD. Jeff Rogers responded that Citrus County does not have any acquisitions for placement in the table.

Next Meeting

The next meeting is scheduled for 9:00 AM on Thursday, April 6, 2017 in Brooksville and will be another joint BMAP meeting. The primary focus of the meeting will be continued discussion of projects to reduce pollutant loads and a presentation by Amec on reduction calculations. Prior to the meeting, DEP will route updated project tables and reduction summary tables.

Adjournment

The meeting adjourned at 11:50 AM.

Action Items

Below are action items from the meeting.

1. Terry: Post final presentation, handouts, and meeting summary to the DEP Springs Coast web page.
2. All: Let Terry know if you are participating in the March 15, 2017 FOWA tour.
3. Citrus County and Hernando County: Review and edit your project workbooks and provide to Cathy in a couple weeks.
4. FDACS: Provide farm fertilizer and livestock waste projects to Terry.
5. All: Provide feedback to Cathy and Terry on the handouts within a couple weeks.
6. Terry: Confirm with DEP groundwater staff that the CR/KB NSILT took into consideration the Citrus County Meadowcrest WWTF upgrades in the WWTF source calculations.
7. Terry: Update PFA/BMAP boundary maps for both BMAPs.
8. Terry: Post or route the DEP funding agreement with NFWFMD and Leon County.
9. Cathy: Add Gordon to the Hernando County distribution list; resend project collection workbook.
10. Cathy: Add Randy Olney, Tina Malmberg, Ken Cheek, and Terri Lowery to the Citrus County distribution list; resend project collection workbook.
11. Cathy: Provide Amec the "other science" BMAP narratives for editing.
12. Cathy: Route updated project tables and summary tables to stakeholders prior to the April meeting.
13. Cathy: Resolve data entry of the UF/IFAS project in both BMAPs.
14. Cathy: Send a save-the-date notice via GovDelivery to stakeholders for the April meeting.

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15. Terry: Prepare Florida Administrative Register (FAR) notice and post April agenda to DEP BMAP web page and Springs Coast web page.