

St. Lucie River and Estuary Basin Management Action Plan

Technical Meeting Summary

Wednesday, August 21, 2013

9:30 AM – 12:00 PM

Martin County Building Department - Building Department Conference Room
900 Southeast Ruhnke Street, Stuart, Florida 34994

Attendees

Jim Angstadt, Port St. Lucie	Kerry Kates, Florida Fruit and Vegetable Association
Carmela Bedregal, SFWMD	Kathy LaMartina, SFWMD
Jason Bessey, St. Lucie County	Milton Leggett, Stuart
Vanessa Bessey, FDACS	Dale Majewski, Port St. Lucie
Tiffany Busby, Wildwood Consulting	Randy McCafferty, SFWMD
Lorrie Bush, St. Lucie West Services District	Greg Nolte, Martin County
Kevin Carter, SFWMD	Reena O'Brien, FDEP
Morgan Cashwell, Congressional Staffer	Ximena Pernet, SFWMD
Tim Gilbert, Citizen	Mark Perry, Florida Oceanographic Society
Benjamin D'Avanzo, Citizen	Marcy Policastro, Wildwood Consulting
Deb Drum, Martin County	Luke Polk, Florida Farm Bureau
Amy Eason, AECOM	Jennifer Purdy, FDEP
Rachel Espinosa, E Sciences	Kenneth Rau, Higgins Engineering
Paul Fitzgerald, Pinnacle Ecological	H.M. Ridgely, Evans Properties
Tom Frick, FDEP	Gerard Rouse, St. Lucie West Services District
Stan Ganthier, FDEP	Liberta Scotto, USFWS
Bill Griffin, Stuart	Jason Storrs, FDEP
Katie Hallas, FDEP	Jeff Sumner, SFWMD
Jodie Hansing, SFWMD	Michael Tompkins, SFWMD
Janet Hearn, ATM	Yongshan Wan, SFWMD
Dianne Hughes, Martin County	Bonnie Wolff Pelaez, FDACS

Welcome and Opening Remarks

Tiffany Busby welcomed everyone to the St. Lucie River and Estuary Basin Management Action Plan (BMAP) meeting. The participants introduced themselves and the entity they represent.

Allocation Model Discussion

Katie Hallas stated that she would like to provide a brief overview of the allocation model used in the BMAP. This a spreadsheet model that was created for the St. Lucie River and Estuary BMAP to calculate starting loads, allocations, and required reductions. This model was refined in 2012 to be consistent with the 2012 St. Lucie River Watershed Protection Plan (SLRWPP) Update. The period of record for data in the model was 1996 through 2005. The most current version of the model is on the Florida Department of Environmental Protection (Department) file transfer protocol (FTP) site:

http://publicfiles.dep.state.fl.us/DEAR/BMAP/StLucie/Model/MOST_CURRENT_VERSION.

Katie stated that there is a considerations section in the BMAP, and the Department wants to make sure that this a robust list because it will be used to update the model for the next BMAP iteration. Katie stated that she will need help from the stakeholders to obtain information for

St. Lucie River and Estuary Basin Management Action Plan

some of the considerations. The first consideration is the land use coverage. The BMAP model included the 2004 coverage, which will need to be updated to the most recent coverage available in 2018 for the revised model. Some changes will also be needed for the jurisdictional boundaries in certain areas. The City of Stuart has parcels of land located within Martin County, and these entities are discussing who these areas should be assigned to in the allocations. There is also a neighborhood that was located in St. Lucie County, which became part of Martin County in summer 2013, so the loadings and associated allocations for this neighborhood will need to be transferred to Martin County once groundtruthing and surveying are completed. Another consideration is the community development district (CDD) allocations. All of the CDDs in the basin are located within the City of Port St. Lucie. The Department had discussions with the city and will continue to talk with them about the best way to allocate to the CDDs. For this BMAP iteration, CDDs had to meet three criteria to receive a separate allocation: (1) have constructed infrastructure; (2) do not discharge to the city's municipal separate storm sewer system (MS4); and (3) applied for and received a reimbursement of stormwater fees from the city. The Department may revise these criteria for the next BMAP iteration.

A new consideration that was added after the last meeting in April was related to the basin boundaries. A new BMAP study area was added, which was designed to evaluate the South Coastal and Mid-Coastal sub-basins. The South Coastal sub-basin had been discussed in past meetings, and this area was not part of the allocations due to a lack of nutrient loading data in this area. The Mid-Coastal sub-basin was included in the total maximum daily load (TMDL) document but was not part of the BMAP basin. Over the next five years, the Department will evaluate those sub-basins for connections to the St. Lucie River and Estuary or the Indian River Lagoon (IRL), and determine if these areas should be included in the next iteration of the St. Lucie BMAP. During the BMAP process, the stakeholders also identified the need to include a portion of the C-25 East sub-basin in the BMAP. In addition, the South Florida Water Management District (SFWMD) completed an assessment earlier this year, which revised some of the sub-basin boundaries. Katie noted that the BMAP area includes six sub-basins: Basins 4, 5, and 6; C-23; C-24; C-44 and S-153; North Fork; and South Fork. The BMAP study area includes these six sub-basins plus the South Coastal and Mid-Coastal sub-basins, which extend the BMAP area to the south and east.

Katie stated that another BMAP consideration was to update the event mean concentrations (EMCs) and runoff coefficients (ROCs) in the model. The available data on EMCs and ROCs were used in the model; however, basin-specific information is lacking. Katie asked the stakeholders if they have basin-specific information to please provide it for the model refinement by December 31st. The Department also plans to work with the stakeholders to incorporate EMCs for treated and untreated areas in future iterations of the model to the extent practicable. Katie asked Janet Hearn to explain how this done in the Caloosahatchee BMAP. Janet responded that the Caloosahatchee model did not account for any of the best management practices (BMPs) that were already in place, so all the stormwater was considered untreated. To address this issue, credit was assigned for any BMPs in the ground, regardless of when they were constructed.

Katie stated that legacy loads are another consideration that the Department would like information on from the stakeholders. Legacy loads may be present in the basin based on past

St. Lucie River and Estuary Basin Management Action Plan

land uses. Another consideration is atmospheric deposition, and Katie stated that she did some searches for information but could not find anything specific for the basin. Katie asked the stakeholders to provide any available information on legacy loads and atmospheric deposition by December 31st. The final consideration in the BMAP is C-23 and C-24 sub-basin runoff. The stakeholders had requested that the Department determine how much of the runoff from these sub-basins goes to the estuary, similar to what was done for the C-44/S-153 sub-basin where the runoff was split between the estuary and Lake Okeechobee.

Amy Eason asked if there are examples of the type of information on EMCs, ROCs, and legacy loads that the Department is looking for the stakeholders to provide. Katie responded that in the BMAP model, Del Bottcher's report was used for some of the EMC information, so this would be a good example. Katie stated that she would provide other examples, if she can find them. Mark Perry asked if the consideration about BMPs is what will be used to revise the BMAP model. Katie responded that the Department would use all the considerations to revise the model, if information on these items are available. Mark asked in the Caloosahatchee BMAP, if any work was done to verify if the nutrient concentrations were different in areas with BMPs. Janet responded that she only provided information on the Florida Department of Transportation's (FDOT) BMPs. Mark asked if any work will be done to evaluate agricultural BMPs on different properties, because not all of the agricultural BMPs are equal in terms of reductions. Katie responded that this is something that can be discussed as part of the planning for the next BMAP iteration. There may be an option to conduct site-specific monitoring on some agricultural properties; however, this information would not be collected at every site.

Mark stated that in the first BMAP iteration, credits were given to agriculture for land use changes and 90% implementation of BMPs. Katie responded that the credit in the BMAP is based on the Florida Department of Agriculture and Consumer Services (FDACS) goal to enroll 90% of the agricultural acres in BMPs during the first five years. Bonnie Wolff Pelaez added that about 52% of the agricultural acres in the basin are currently enrolled. Mark asked if the credit for the agricultural land use changes were based on a comparison of the 2004 land use coverage to more recent land uses. Katie responded that this is correct, and credit was assigned with the assumption that the agricultural areas would stay out of production for the first BMAP iteration. Mark noted that with the credit for BMPs and land use changes, agriculture does not have to do anything until the next BMAP iteration. Katie responded that all the stakeholders provided enough projects to meet the requirements for this first iteration. Part of the reason for holding today's meeting is to start talking about what needs to be done to meet reductions in the next iteration, so all of the stakeholders still have more work to do to meet the entire 100% reductions.

Jason Bessey suggested adding a consideration to evaluate changes in the urbanized areas in the basin, which will affect the MS4s. Katie responded that this item would be added to the list.

Katie stated that she wanted to review the model options for the next iteration to start discussions on which would be best. Option 1 is to use the current spreadsheet model with some refinements. The pros of using the current model are that this model was used in development of the BMAP allocations, so the stakeholders are familiar with it, and it is a relatively simple model, so someone new to the BMAP process would be able to follow the calculations. The

St. Lucie River and Estuary Basin Management Action Plan

cons of this option are that various revisions are needed to address the considerations; basin-specific data for some of the revisions, such as the EMCs and ROCs, may be lacking so the update could be somewhat limited; and it is a relatively simple model, so it would not be able to model attenuation or nutrient cycling within the basin.

Option 2 is to use a watershed (WaSH) model/estuarine model combination. The watershed model is based on the U.S. Environmental Protection Agency's (EPA) Hydrologic Simulation Program – FORTRAN (HSPF) model, and the estuarine model is based on EPA's Environmental Fluid Dynamics Code (EFDC) model. The pros of this option are that these models are more detailed, so they are capable of simulating attenuation of flows, water quality constituent cycling, effects of BMPs, and compliance with the TMDLs at the Roosevelt Bridge; and the stakeholders have some familiarity with these models from Comprehensive Everglades Restoration Plan (CERP) work. The cons of this option are that the allocations and required reductions could change significantly, but this could occur with any option as updated land use and water quality data are added; the WaSH model needs to be upgraded to ArcGIS 10.1; and the water quality component of the model needs additional work before it could be used in the BMAP. Katie noted that the Department is working to get a technical contract into place, and the consultants on this contract would be able to provide support to the SFWMD on developing the model. This would allow for the Department and SFWMD to work together like they did when developing the current spreadsheet model.

Option 3 is to use another model. The pros of this option are that another model would have more capabilities than the current model. The cons of this option are that the allocations and required reductions would likely change, it is an unknown model at this time, and there is an unknown timeframe for development. Katie asked the stakeholders for feedback on the three model options preferably by December 31st.

Amy stated that her thought when considering these options is how the BMAP information will match the SLRWPP information. The spreadsheet model had a huge error margin between the two plans. Katie responded that there was not a huge error margin in the spreadsheet. The largest difference was in the C-44/S-153 sub-basin, and this error was corrected by adding the split in runoff between the estuary and Lake Okeechobee. Dianne Hughes asked if SFWMD is using WaSH for the SLRWPP. Yongshan Wan responded that SFWMD is using WaSH for the SLRWPP. Jason asked if SFWMD was able to add the benthic flux information to the WaSH model. Yongshan responded that SFWMD collected flux data in 2008 or 2009 during the dry season. SFWMD is now trying to allocate funding in their budget to collect wet season flux data, and then this information can be added to the model. Jason asked if they will be able to use the flux data to calibrate the WaSH model. Yongshan responded that in addition to the WaSH model, there is an estuarine model, which is where the benthic flux information would be used. The wet season flux data collection is part of the proposed SFWMD budget, and he is just waiting on final approval of the budget.

Jason asked if there are other models, such as MIKE SHE, which would be applicable for the BMAP. Yongshan responded that the MIKE SHE software is expensive to buy, and it would have to be set up for this area whereas the WaSH model/estuarine model combination is already set up for the St. Lucie River and Estuary Basin. SFWMD has a lot of experience with the

St. Lucie River and Estuary Basin Management Action Plan

WaSH model, so it would be a better option. Carmela Bedregal asked if the Department has considered using the models that were developed for the Everglades BMPs program. These models are based on the hydrologic variability from year to year. Katie responded that the Department had several discussions with SFWMD about model options, and these models did not come up as good alternatives. It seemed that the best option was the WaSH/estuarine combination since it was developed for the St. Lucie River and Estuary Basin, and BMPs could be added to assess the associated reductions. Carmela stated that the Everglades models predict the relationship of rainfall and loads under historical conditions and can model the loading before and after BMP programs are implemented. Yongshan added that these models use a pre-BMP period to establish a hydrology versus load relationship, and the factors can be adjusted using new data to determine how much load was reduced with the implementation of BMPs. These models work on a basin scale but are not appropriate for a sub-basin scale. Katie noted that while these models are good tools to evaluate the system holistically, a more detailed tool is needed to determine the BMAP allocations, which are done at the sub-basin level.

Dianne stated that there was a struggle to explain why the numbers in the SLRWPP and BMAP were not matching up. It would be better if these plans had the same numbers going forward. Katie responded that the plans will be consistent moving forward because the SLRWPP will no longer look independently at water quality but will instead use information from the BMAP process. Using a more detailed model in the next iteration will help factor in attenuation, biogeochemical processes, and nutrient flux to update the allocations. The spreadsheet model is more simplistic and several optimization factors had to be included. The Department believes it would be better to have a more robust model for the second iteration.

Tiffany asked if SFWMD's schedule for updating the WaSH model fits with the timeline to prepare for the next BMAP iteration. Yongshan responded that SFWMD has a limited budget to update the graphical user interface (GUI) and basin boundaries in the model. If the Department and the stakeholders decide to use the WaSH model for the BMAP, additional money would be needed to update it; however, the model could be ready in about two years. Katie noted that this is part of the reason she wanted to start discussions for the next iteration early, so that everyone could determine what resources are needed for this effort.

Benjamin D'Avanzo asked how using the new model would affect the MS4 permits with changes in the allocations and required reductions. Katie responded that the new model would not affect the MS4 permits themselves, but the stakeholders would have new reduction requirements under the BMAP. Dianne added that the Phase II MS4 permits would not be affected because these MS4s are not required to conduct water quality monitoring. The BMAP is an enforceable document so if the water quality targets are not achieved, the Phase II MS4s may have to start monitoring.

Katie asked the stakeholders to contact her with any additional feedback on the model options.

Second Phase BMAP Planning

Katie stated that the presentation includes a tentative schedule for what the BMAP process will look like during the next five years. The schedule could change based on the time it takes to build a model and to obtain funding for additional projects. Katie noted that she wanted to

St. Lucie River and Estuary Basin Management Action Plan

present the schedule to remind the stakeholders that they need to be constantly working to restore the waterbodies.

Katie stated that she is proposing that the next meeting be held in February 2014, if there is information to discuss at this time. The next meeting would be the annual meeting in August. For the annual meeting, Katie will send an email to the stakeholders in June, which is one year from BMAP adoption, asking for updates on their activities. The stakeholders would have about a month to provide their updates, and then the Department will put the report together. The report would be sent to the stakeholders about a week or two before the annual meeting. If needed, another meeting would be held in the fall. The cycle of meetings (spring, August, and fall) will continue over the next five years. Katie noted that she hopes to have the modeling completed in fall 2016, and this timeline will depend on which model is selected. For the stakeholder meeting in spring 2017, Katie is proposing to have each of the stakeholders presents projects they are thinking of implementing in the second BMAP iteration. These presentations could also occur at earlier meetings; however, the spring 2017 meeting was selected as a benchmark.

Katie noted that the August 2017 annual meeting would also include a detailed water quality assessment. SFWMD performs an annual water quality evaluation through the *South Florida Environmental Report* (SFER) for the estuary. This information will be used for the first three years of BMAP implementation. However, in year four, there should be enough data since the BMAP was adopted to conduct a water quality assessment to determine what affect the measures put in place are having on the estuary. In fall 2017, a stakeholder meeting would be held to kick off the planning for the five-year update to the BMAP. The next iteration of the BMAP would be discussed during earlier meetings, but this meeting would be used to discuss the format of the BMAP and information needed. The Department would then provide draft BMAP text at the spring 2018 meeting for the stakeholders to review and comment. By the August 2018 annual meeting, the second BMAP iteration would be adopted.

Katie stated that the project identification timeline provides information on the general steps and timing to determine projects. The first step would be to identify additional projects to meet 40% of the required reductions. These discussions are starting now and would go through about January 2017. Steps 2 and 3 are interchangeable and include working with other stakeholders to develop collaborative projects and briefing management on the projects. These steps would occur through the end of 2016. The Department will then work with the stakeholders to identify funding options for the projects through the Section 319 program and TMDL grants. Step 5 would be to brief the councils and commissions about projects by the end of 2018. The final step would be to adopt the list of new projects for the second BMAP phase.

Mark stated that the SLRWPP needs to be reviewed and updated every three years, which will occur in 2015 and 2018. He asked if the Department could coordinate with SFWMD, so that the BMAP annual report, which will be released in August, can be included in the SLRWPP. Katie responded that what would likely occur is that she would prepare a write up on the BMAP efforts to be included as a section in the SLRWPP. The timing of the annual report may not work with the SLRWPP development. Kevin Carter noted that the Department and SFWMD have not

St. Lucie River and Estuary Basin Management Action Plan

discussed including the annual reports in the SFER and SLRWPP, but they can take this into consideration.

Carmela asked how the August 2018 BMAP assessment relates to the 40% required reductions. Katie responded that the next phase of the BMAP would be adopted in August 2018. For the first phase of the BMAP, stakeholders have to achieve 30% of the required reductions. For the second iteration, Katie is proposing to meet another 40% of the required reductions, with the remaining 30% of the reductions addressed in the third BMAP iteration. Carmela asked if the 40% reductions would be based on new numbers. Katie responded that the reductions are based now on the current allocations. With either updating the spreadsheet model or using another model, the total reductions will likely change, which will change what the 40% reduction equates to. The important thing is to start thinking about activities for the next iteration.

Kathy LaMartina stated that another option for project funding is through the St. Lucie River Issues Team (SLRIT). This is a local initiative that solicits projects and requests funding from Tallahassee for those projects. The stakeholders can talk with Kathy for more information about this funding source, and to be added to her distribution list. Kathy noted that she has been trying to put together a grants team, and she would ask people who give out grants to present to this group. This would be a forum to help make people more successful in applying for grants.

Deb Drum asked if the Department has funding to help stakeholders meet BMAP requirements. Katie responded that the main sources of funding are the Section 319 program and TMDL grants. There are also other opportunities, such as State Revolving Fund loans. Extra points are assigned in TMDL grants for projects in a BMAP. There are an increasing number of points applied depending on whether the project is located near a listed waterbody, if the waterbody has a TMDL, or if the project is listed in an adopted BMAP. For Section 319 funding, there is an appendix in the BMAP listing EPA's nine elements of a watershed plan, which must be met to be eligible for funding and the BMAP meets each of these nine elements. Deb asked if the \$9 million that the Department discussed at Martin County's commission meeting was the funding from the TMDL grants and Section 319 program. Tom Frick responded that this is funding the Department received this fiscal year from EPA and the legislature for these two funding sources. Deb asked if the Department would ask the legislature for additional funding. Tom responded that the TMDL grant is based on doc stamps revenue, so the funding is not based on a request to the legislature. For the EPA funding of the Section 319 program, there is a national formula that is used to calculate how much funding each state receives.

Katie stated that a process similar to the one used earlier this year will be utilized to identify projects for the next BMAP iteration. The Department's goals for the project collection process are to have a transparent assessment process by making all the calculations available on the FTP site, and to determine realistic estimates of nutrient load reductions. The project collection process will involve the stakeholders completing a spreadsheet for their individual projects, and the Department reviewing these spreadsheets for completeness before calculating the estimated reductions. The stakeholders will then review the estimates and provide feedback. Finally, the Department and stakeholders will determine what additional projects are needed to meet the required reductions.

St. Lucie River and Estuary Basin Management Action Plan

The types of projects that can be submitted included typical stormwater BMPs, such as 1st and 2nd generation baffle boxes, treatment ponds, treatment trains, street sweeping, catch basin clean out, septic tank phase out, swales, and alum injection. Provisional BMPs are also eligible for credit including public education and outreach, floating islands, water control structures, vegetation harvesting, and muck removal. Appendix D of the BMAP includes the table of efficiencies for the different types of BMPs. If the stakeholders have data that show reductions different than the standard efficiencies, they can provide these data to the Department for consideration. The requirements for project credit include providing treatment above and beyond permit requirements, reducing total nitrogen (TN) and/or total phosphorus (TP), and located within the BMAP area.

Dale Majewski asked if the Department received information from Florida State University (FSU) on the modeling of septic tank phase out reductions. Katie responded that the Department has been working with the FSU modelers to calibrate the ArcNLET model for septic tank phase outs for the BMAP area. The City of Port St. Lucie, City of Stuart, and Martin County provided information on septic tank phase outs for the BMAP. The Department has a meeting later this week with the FSU modelers to discuss the results, and then a meeting will be scheduled with the stakeholders. There may be a need for more monitoring in this area because some of the data used in the modeling are old. Katie will follow up with stakeholders on the septic tank phase out reductions within the next few weeks. Carmela stated that SFWMD could overlap their monitoring station locations with the septic tanks in the basin to determine if there are additional data that could be used. Katie responded that she has been coordinating with SFWMD (e.g., Steven Krupa and Boyd Gunsalus) on this but there is still a lack of data in some areas.

Mark asked if there are loading calculations for septic tanks in this area and how septic tanks closer to the river may be impacting the waterbody. Katie responded that these calculations have not been done through the BMAP process but could be done for the second phase. The ArcGIS-Based Nitrate Load Estimation Toolkit (ArcNLET) model is calibrated to specific areas in the basin, but other data could be gathered to calibrate the rest of the basin. Dianne noted that there is literature available on the nutrient loading from septic tanks. Martin County conducted an evaluation of their septic tanks in 2000 or 2001 to prioritize areas for phase outs based on a number of factors, including the soil types and proximity to waterbodies. Mark noted that septic tanks were recently brought up as the primary load to the system, but he does not believe this is an accurate statement. It would be helpful to have more data on modeling to determine the source(s) of loading. Tiffany stated that the Department helped to fund the development of the ArcNLET model, and it is publicly available for free so anyone can run the model.

Monitoring Plan

Katie stated that the focus of this monitoring plan discussion will be on the South Coastal and Mid-Coastal sub-basins since they are newly added to the BMAP. The primary objective of the monitoring plan is to, “Track trends in TN and TP loads in the major canals and tributaries, as well as the St. Lucie River and Estuary.” This objective will be evaluated through the existing network, which is shown in Figures 7 and 8 in the BMAP. The monitoring network is extensive with all the stakeholders’ stations, especially the stations from SFWMD. For the South Coastal and Mid-Coastal sub-basins, monitoring is needed to better determine the hydrologic connectivity to either the St. Lucie Estuary or IRL to determine if these sub-basins should be

St. Lucie River and Estuary Basin Management Action Plan

added to the next iteration of the St. Lucie BMAP. The South Coastal sub-basin will likely be added to the St. Lucie BMAP, but the Mid-Coastal sub-basin might fit better with the IRL BMAP, which will require coordination with the Department's Basin Coordinator in that area.

SFWMD has several IRL and tributaries stations in both sub-basins. The IRL stations are grab samples that are collected seven times per year. The tributaries stations are also grab samples that are collected bi-weekly. Katie noted that in discussions earlier this week with SFWMD, they noted that flow data are not needed in these areas. Yongshan stated that flow data are currently not being collected in these areas and it would be helpful to have some flow data to calibrate the model. Flow data are also lacking in the North Fork and South Fork. Mark asked if the stakeholders could request that flow monitoring be added in these areas. Katie responded that she could bring this feedback to upper management to request a cost estimate for the equipment and sampling. Yongshan noted that there is a lot of land area in the South Coastal sub-basin, so flow data would be helpful there, but the Mid-Coastal sub-basin is mostly water. Katie stated that she would discuss this further with the Department and SFWMD to determine what the data needs are for the WaSH model or other models.

Dianne asked if flow data are expensive to collect. Yongshan responded that SFWMD had a program with the U.S. Geological Survey (USGS) where USGS paid for 40% of the flow monitoring costs. This program has ended, but USGS could be a good resource for adding flow measurements. The cost was about \$60,000-\$70,000 per year, per station. Jason Storrs stated that he recently spoke with someone from USGS who said that a flow station only, no water quality, would cost \$7,000 per year. Yongshan responded that this cost assumes that the platform is in place and the instrumentation has been purchased, and these are significant costs. H.M. Ridgely asked if the collected data are publicly available. Katie responded that the data SFWMD collects are in DBHYDRO, and the data the Department collects are in STORET.

Stormwater Education Task Force

Dianne stated that during the last BMAP meeting, she mentioned that she wanted to start a stormwater education task force for the basin. Now that the BMAP is in place as an enforceable document, the local governments need to start educating the citizens so they can help meet the water quality goals. The citizens are well-versed about the Lake Okeechobee discharges but they might not know as much about what they can do to help the river. There is a water quality problem here that the citizens need to be educated about.

Dianne stated that she would like to link the outreach to the BMAP. A watershed approach is needed for the education program and the stakeholders could work with other agencies and nonprofits to target problems in the basin. In addition, when multiple groups work together, the programs usually have a higher level of long-term support from councils and commissions. This education and outreach would be used to meet the water quality goals for the basin. The BMAP is enforceable, and the stakeholders will be held to meeting the TMDL. The Phase II MS4 permits currently do not have requirements to monitor for water quality, and it would be best if monitoring is not added to the permits in the future. The revised generic permit for MS4s now includes a requirement to address EPA fecal coliform TMDLs, and there are a few of these in the basin. Education could help to let the citizens know there is a problem they are causing, such as by not picking up after their pets.

St. Lucie River and Estuary Basin Management Action Plan

Dianne noted that using outreach to change behaviors has been successful in other areas of the state. Social marketing is used to sell ideas in attitudes and behaviors. There are several campaigns that are in the public domain because they were funded through grants, and this information could be used and just tweaked for this area. Some examples include the Think About Personal Pollution (TAPP) program (www.tappwater.org) in Tallahassee, www.befloridan.org in Tampa, and www.livebluefl.org in Brevard County. Partnerships need to be built to achieve goals because the problems are too big and expensive for just one entity to focus on. The stakeholders should collaborate on common goals to meet the TMDL, improve success, and share costs.

Dianne stated that she would like to start holding task force meetings with other interested stakeholders. The best person from each entity might be an outreach/media person. The frequency of these meetings will need to be determined. It could be that more frequent meetings are needed in the beginning and then quarterly meetings could be held once the campaign is built. The first meeting will be held as a lunch meeting on September 18th, and interested stakeholders should email Dianne by next Friday, August 30th, about who their representative will be in this process.

Public Comments and Wrap Up

Kathy stated that the request for proposals for the 2014 SLRIT grant program are due this Friday, August 23rd, and there is a meeting to present on the proposals on September 13th.

Katie stated that the next meeting is tentatively scheduled for the typical second Wednesday in February, which is February 12, 2014. Katie will send a notice about whether or not this meeting will be held when this date is closer.

Adjourn

The meeting was adjourned at 11:16 AM.

Action Items

- The stakeholders should provide any basin-specific EMCs and ROCs, legacy loads, and atmospheric deposition information to Katie Hallas by December 31st.
- Katie will provide example reports that contain the types of information the Department is looking for on EMCs, ROCs, and legacy loads.
- The Department will add a new considerations item for changes in urbanized areas in the basin for the MS4s.
- The stakeholders should provide feedback to Katie on the model options. Decisions on selecting the allocation model will need to be finalized, so that modeling work can begin in spring 2014.
- The Department will coordinate with SFWMD about whether the BMAP annual reports could be incorporated into the SFER and SLRWPP.
- The stakeholders can contact Kathy LaMartina to be added to the St. Lucie River Issues Team distribution list.
- Katie will follow up with Port St. Lucie, Stuart, and Martin County on the septic tank phase out reductions within the next few weeks.

St. Lucie River and Estuary Basin Management Action Plan

- The Department will consider using the ArcNLET model to calculate loading from septic tanks throughout the basin.
- Katie will talk with Department and SFWMD staff about what the flow data needs are for the WaSH model or other models.
- Stakeholders interested in participating in the stormwater education task force should contact Dianne by August 30th.
- Katie will send a notice to the stakeholders about whether or not the next meeting will be held on February 12th, when this date is closer.