**Annual Meeting Summary**
*Wednesday, March 4, 2015*
*2:00 PM – 3:50 PM*
*SFWMD Lower West Coast Service Center – 1st Floor Large Conference Room*
*2301 McGregor Boulevard, Fort Myers, Florida*

## Attendees

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|---|---|
| Jackie Albert, Conservancy of Southwest Florida | Sara Hammermeister, USGS |
| Martha Avila, FDEP-South District | Janet Hearn, ATM for FDOT |
| Carmela Bedregal, SFWMD | Jon Iglehart, FDEP-South District |
| Karen Bickford, Lee County | Keith Kibbey, Lee County |
| Karen Bliss, Charlotte County | Vincent Miller, Fort Myers |
| Tiffany Busby, Wildwood Consulting | Jennifer Hecker, Conservancy of Southwest Florida |
| Jennifer Carpenter, FDEP-South District | Kerry Kates, FFVA |
| Marisa Carrozzo, Conservancy of Southwest Florida | Ernesto Lasso de la Vega |
| Kevin Carter, SFWMD | Julie Neurohr, FDEP-South District |
| John Cassani, Watershed Council | Kelly O'Nan, Hendry County |
| Terry Cerullo, FDEP-South District | Roland Ottolini, Lee County |
| Kevin Coyne, FDEP | Raulie Raulerson, FDACS |
| Sara Davis, FDEP | Pete Quasius, Audubon/Collier |
| Tim Denison, Johnson Engineering | Steve Sentes, SFWMD |
| Ron Edenfield, R.M. Edenfield Company | Carlton Spirio, FDOT D1 |
| Holly Edmund, FDACS | Ashely Thomson, AECOM |
| Rebecca Elliot, FDACS | Bill Walker, ECWCD |
| James Evans, Sanibel | Rae Ann Wessel, SCCF |
| Jacob Fojtik, FDACS | Linda Young, Florida Clean Water Network |
| Phil Flood, SFWMD | |

## Welcome and Opening Remarks

The meeting started at 2:00 PM. Tiffany Busby welcomed everyone to the Caloosahatchee Basin Management Action Plan (BMAP) meeting. Tiffany also thanked the South Florida Water Management District (SFWMD) for the use of their meeting room. The participants introduced themselves and the entity they represent.

Tiffany asked if there were any comments or corrections to the January 28, 2015 meeting summary, which was a joint annual meeting with the Everglades West Coast basin. There were no comments on the meeting summary. Tiffany noted that the past meeting materials are posted on the Department's website for background and reference.

## SFWMD Data from the Caloosahatchee River Watershed Protection Plan

Kevin Carter, SFWMD, reviewed the items that would be covered on the agenda today and stated that he would review a selection of the District's data recently distributed in the updated Caloosahatchee River Watershed Protection Plan (CRWPP) 2015. This report has just been released, so the timing is good to review the pertinent data for this basin. Kevin Carter explained that the report had been delivered to the Florida Legislature last week and it was subsequently posted on the District's website

(www.sfwmd.gov/sfer). This report underwent a public and peer-review process and there had been a public meeting at the SFWMD's Lower West Coast Service Center on October 1, 2014 that covered the initial draft report. The CRWPP is part of the South Florida Environmental Report (SEFR) and it is a legislative requirement to provide updates; this is the 3rd edition of the report with two being 3-year updates (2012 and 2015) of the original 2009 plan.

Kevin Carter stated that the data he is presenting is a brief part of the CRWPP 2015. The report also describes projects, regulatory programs, and science and research efforts. Kevin Carter noted that Peter Doering is the District's technical expert whom Kevin Carter can consult if there are technical questions that Kevin Carter is not qualified to answer.

Kevin Carter stated that the water column properties were determined from monthly sampling at a depth of 0.5 meters (m). There are three monitoring stations (CES01, CES04, and CES06) that have the best, long term datasets, and those results are being presented today. Kevin Carter added that there are additional SFWMD monitoring stations located in the Caloosahatchee estuary. A map was displayed that showed the sites of the three stations within the river as well other sites that measure water quality, salinity and living aquatic habitats (such as oysters and submerged aquatic vegetation [SAV]).

Kevin Carter noted that the District summarizes data based on the "water year" (WY) that begins on May 1st and continues through April 30th. Kevin Carter also stated that he planned to emphasize the total nitrogen (TN) data, as those are the focus of the Caloosahatchee total maximum daily load (TMDL) but total phosphorus and chlorophyll-*a* data are in the CRWPP 2015 report

The charts (originating from Figure 10-31 in the CRWPP 2015) that Kevin Carter displayed represented monthly observations for TN in units of milligrams per liter (mg/L) between the WYs 2000 and 2014. Flow measurements from S79 were also shown on the graphs and there were some high flow events as well as some drought years represented in the datasets. At site CES01 which is located upstream of S79, most TN concentrations measured were generally between 1.0 and 1.5 mg/L with some variability observed over the long term. At site CES04 located in the upper estuary. TN concentrations were also generally between 1.0 and 1.5 mg/L at this site with similar variation. At site CES06, which is located lower in the estuary, there are indications of mixing with coastal waters and subsequent lower concentrations of TN than observed in the upper estuary.

James Evans asked whether Kevin Carter knew what caused the TN spike in 2010 at sites CES01 and CES04, and whether it is possible that the data were wrong. Kevin Carter responded that he could ask Peter Doering about what may have caused the peak. Jennifer Hecker commented that if the data reflect real conditions that occurred, that would be good to know.

Kevin Carter continued that the report did not include a long-term trend analysis. However, the report produced three years ago did include a trend analysis and another analysis is planned for a future report, likely in the next three-year CRWPP update process, in which the analytical process would begin approximately two years from now.

Kevin Carter stated that the seasonality of rainfall—the occurrence of wet and dry seasons—is important in Florida. As such, he showed Table 10-11 from the CRWPP 2015 that describes the seasonal average conditions at sites CES01, CES04, and CES06. The wet and dry season data shown are a 14-year average and the standard deviation for WYs 2000 through 2014 as well as the individual data for WYs 12 through 14. The long term wet season values are higher than the dry season values at all three sites. The wet season values in all WYs show higher concentrations in the freshwater section and upper estuary than observed at the station CES06 in the lower estuary where more coastal mixing occurs. There was some discussion about WY 2012 being a drier year while WY 2014 was the wettest of the three years reviewed individually. In the main CRWPP 2015 report, there are additional graphs and information about rainfall and hydrology.

Tim Denison stated that he would like to review the data used in the charts presented and also was interested in any additional sites upstream of S79. Kevin Carter responded he was fairly certain the SFWMD monitored at the additional two structures upstream of S79, but would need to verify this. He continued that the SFWMD data, including the data in his presentation, are available through the District's DBHydro system (http://www.sfwmd.gov/dbhydroplsql/show_dbkey_info.main_menu). Kevin Carter added that if anyone wants to look at the data and is unfamiliar with using DBHydro to give him a call. While DBHydro is not hard to use, it is not always intuitive and so it is helpful to talk someone when you use it for the first time.

Rae Ann Wessel asked if the District also has monitoring stations upstream at Lake Okeechobee and at the other locks. Kevin Carter responded that he is fairly certain that they maintain stations at S-77 and S-78, but he will verify that and those are the types of stations he was describing for Tim Denison earlier. Kevin added that he believes that S-77 has a fairly long historic record of data. Rae Ann asked if the data is being used for the tributary TMDLs being developed. Kevin Carter responded that the data were used for the 12 TMDLs currently being developed in the Caloosahatchee Basin especially for the main stem Caloosahatchee.

Marissa Carrozzo asked if the observations are collected monthly. Kevin Carter replied that, yes, the District collects monthly data for the information shown in his presentation. Kevin Carter added that the District also maintains salinity recorders that collect data much more frequently.

John Cassani commented that the main stem of the tidal Caloosahatchee receives TN loading from freshwater sources very far away. John asked what the data say about the sources and how to distinguish the loads from within the tidal area to those from upstream, including areas as far away as Kissimmee. Kevin Carter responded that the data in the tidal basin would have to be used in conjunction with the tributary monitoring sites in the basin. The tidal stations highlighted in this presentation show an integration of loads from upstream as well as loads from within the tidal basin.

Tim asked if the District is measuring specific conductance to help separate freshwater versus marine areas. Kevin Carter responded that, yes, the District has specific conductance/salinity recorders plus

real-time data sondes. Kevin added that the District looks at hydrologic loads and model outputs to help understand the system loads and where they come from.

Jennifer Carpenter added that when the agencies worked on the tidal basin, they used U.S. Geological Survey (USGS) flow data to help refine the models on which the TMDLs were based. Jennifer Hecker asked how the flow data were used and extrapolated. Sara Hammermeister responded that USGS strictly provided flow data with a filter that screened out the tidal influence.

**New Tributary TMDLs**

Sara Davis, Department, reviewed the status of new tributary TMDLs that the Department is preparing. There are four new TMDLs planned for tributaries in the Tidal Caloosahatchee Basin: Billy Creek, Cape Coral, Deep Lagoon Canal, and Popash Creek. Billy Creek (waterbody identification [WBID] 3240J) is impaired for dissolved oxygen (DO). Cape Coral (WBID 3240A2) is impaired for historic chlorophyll-a. Deep Lagoon Canal (WBID 3240A4) and Popash Creek (WBID 3240Q) are both impaired for chlorophyll-a.

Sara Davis noted that the whole Caloosahatchee Basin is being modelled together so while refining the model to work on these tributaries, they are also refining the model area wide. The TMDLs will create tributary-specific targets for these four contributing waterbodies and so working towards those water quality targets will help with progress towards the main stem target. Sara Davis stated that the additional calibration data from the recent TMDL development process is helping to refine the model overall. Therefore, these tributary TMDL results may help refine the tidal TMDL.

Sara Davis added that the four tributary TMDLs that are located within the tidal basin will likely be included in the next phase of the Tidal Caloosahatchee BMAP. Part of the process of bringing in those TMDLs to the BMAP will be to identify projects and monitoring efforts specifically in those four basins.

**Overview of the Caloosahatchee BMAP Monitoring Data**

Sara Davis then reviewed the BMAP monitoring data for the Tidal Caloosahatchee Basin. Sara Davis noted that there are still TN reductions needed to meet the TMDL, as shown on the graphic. So we need to have more discussion on the best ways to meet the TMDL. Part of that is to make sure the water quality being collected is uploaded into Florida STORET. Sara Davis listed the entities that provided data including the following: City of Cape Coral; City of Fort Myers; East County Water Control District; Lee County; South Florida Water Management District; and Florida Department of Environmental Protection-South District.

If anyone needs help with getting started with uploading data, please contact Sara Davis for information and for expert contacts in the Department's STORET section. Also, Sara Davis asked that if you know of other data that the Department is not using but would help to increase our understanding, please let Sara know about the dataset. We need to work together to compile all the data so they all can be considered in future assessments.

Overall, Sara Davis explained that the water quality data being presented were a compilation of data from 2009 through 2014, where data were available. Sara Davis stated that data represented in the nitrogen ion STORET characteristic is being shown to represent TN. Four examples tributaries are

being reviewed in the presentation, but all the tributary data and charts will be posted on the website by Monday, March 9th. Feedback is welcome on these data and charts. Sara Davis explained that the four tributaries being presented were the following: Manuel Branch; Orange River, Powell Creek; and Popash Creek.

Sara Davis reviewed the results from Manuel Branch (WBID 3240I). There are two stations within Manuel Branch that are collected by the City of Fort Myers. USGS also has a flow monitoring station in this tributary. Sara noted that Vincent Miller, City of Fort Myers, provided some of their data that has not yet been uploaded into STORET but some is still missing, which is apparent on the graphs showing the data from both stations. Sara Davis explained that a trend line was not projected for Manuel Branch because there were insufficient data.

In the Orange River (WBID 3240K), there was a USGS station and, therefore, daily mean discharge (tidally filtered) and gage height can be charted. The USGS station provided data from November 2007 through April 2013. Sara Davis added that the flow information from this station will help the Department work on TN loading analyses for discussion at a future meeting.

Sara Davis reviewed the TN concentrations from the two monitoring sites in Orange River. The red line on the charts describes a long term trend using data from January 2005 through December 2014. The blue lines show the measured TN concentrations from 2009 through 2014. Sara Davis also explained that the chart includes two short-term trend lines—a yellow line from January 2009 through December 2011 and a green line that shows the trend from January 2012 through December 2014.

Sara Davis explained that some experts from the Department's TMDL group stated that they have generally observed elevated TN concentrations statewide in the 2009 through 2011 time period, and lower concentrations in the 2012-2014 period, although they are unsure of the cause. The elevated levels are not seen everywhere, but it is common. The TMDL group wanted Sara Davis and the stakeholders to be aware that when we see these types of short-term trends here, there may be some larger considerations beyond what is happening within the watershed. Sara Davis noted that in the four tributaries that are being presented today, there are elevated TN concentrations at most of the stations in the 2009 through 2011 period.

Jennifer Hecker asked about the projects that had been given credit in the BMAP retrospectively, and whether an earlier date should be used as the starting date for trend analyses. Sara Davis responded that they talked about that internally before they worked on the data. However, when they looked at the data from the period prior to 2005, there was not much difference in the trends using the two different long term periods of record (2000 to 2014 and 2005 to 2014). Sara Davis noted that while the blue lines show the measured concentrations starting in 2009, the trend line uses the water quality data starting in 2005. Sara Davis added that many of the BMAP projects started around that time or later.

Jennifer Hecker commented that the rate of permits issued and new development is really important. She added that the Environmental Resource Permit (ERP) standards are not up to par, especially for controlling TN. So that could be the factor that is showing up in elevated TN concentrations around the state. Jennifer Hecker explained that we want to discuss what is happening at the local level. Sara Davis responded that we think that we see some short term trends in the data, but we don't know why.

James Evans asked what Sara Davis meant by emphasizing that nitrogen ion data was being shown on the charts. James asked if ion data are not available, is there a calculated TN value used. He also asked why different time periods are shown on the different lines.

Sara Davis explained that the Nitrogen Ion STORET characteristic was plotted to look at trends in order to be consistent with how the data is used by the Department's assessment group. This characteristic is used as TN for these stations. Sara Davis also responded that a 10-year period was used to show a long term trend. The more detailed lines show the data from 2009 forward, which reflects when the TMDL was adopted.

Pete Quasius commented that there may be other factors involved in the trends seen beginning around 2009, such as unoccupied homes.

John Cassani stated that if there are ion data as well as other TN data that are being used together, that is a concern. Keith Kibbey responded that the ion label on the data may be a misunderstanding, particularly where the Lee County data are being used. The Lee County nitrogen data are TN-Nitrogen, not ion nitrogen. Karen Bickford added that STORET doesn't have a code for "TN," so you have to pick a category for your TN-Nitrogen data. When Lee County was setting up in STORET the Department advised the county to upload their TN-Nitrogen data as ion Nitrogen, so that is what you are seeing being called ion nitrogen. Sara offered to follow up with the Department's assessment group to find out more about what data is called ion nitrogen and then we can report back to everyone.

John noted that you can also do an assessment using the data in the Water Atlas.

Rae Ann asked if the Department still monitors air quality. She noted that the elevated TN concentrations in stormwater could be a result of an upsurge in atmospheric deposition. Kevin Coyne stated that they can check on the atmospheric data to see if that may account for the elevated TN levels observed in 2009-2011 around the state.

Sara Davis continued with her presentation and the water quality trends in Powell Creek (WBID 3240L). Sara Davis noted that the station furthest upstream (POWLGR81) has similar short term trends as those in Orange Creek, but not as pronounced. Station POWLGR 20 also shows similar short term trends. Sara Davis stated that she hopes that by comparing the sites, it will be helpful to help plan projects and where to locate them. Sara Davis added that Station POWLGR 51 has a flatter trend line than the other two stations.

In Popash Creek (WBID 3240Q) Sara Davis noted there are three water quality stations and one USGS station. Sara Davis showed the discharge and gage height data from the USGS station. Popash Creek demonstrated some unique water quality trends compared to the other examples. There was a downward trend at the first station (23-27GR). Sara added that the trends in the other two stations are similar to trends seen in most of the other tributaries. Pete commented that there are few manatees in Popash Creek compared to Orange River. In the warm section of the Orange River, there are usually several hundred manatees, whose presence might influence the data. He added that you may want to consider upstream and downstream samples there to rule out that influence.

Jennifer Hecker stated that because the stormwater standards are not effectively controlling TN, that is the most obvious source to address, and not wildlife that should be considered a natural background source. She expressed the hope that this effort will dig further into the stormwater sources and their impacts.

Rae Ann commented that the increasing and decreasing trend lines are confusing. She asked if the water supply withdrawals could be a factor here because there may be less ground water contributing to these tributaries than there was historically. Rae Ann noted that in Popash Creek there is a water plant nearby and Cape Coral is now using an aquifer storage and recovery (ASR) system. There may be connections with water supply activities. Sara offered to follow up with Rae Ann with her questions about the possible impacts of water withdrawals.

Roland Ottolini expressed concern that if there are new tributary TMDLs, then eventually there will be BMAP project requirements related to those areas. Roland stated that Lee County has recently completed projects in some of these basins such as Powell Creek and Popash Creek, and he is concerned that the county will not get credit for those efforts if the efforts preceded the TMDLs. Kevin noted that including the new TMDLs into the BMAP is still several years away, but they will likely be incorporated into one BMAP.

John suggested that we bring different information sets together, such as the municipal separate storm sewer (MS4) permit reports. John noted that there will be loading assessments included in those reports. The Watershed Protection Plan may also have some loading assessments included and we should make use of these. John expressed frustration that we are wondering what is going on in these tributaries when we are far into the process. There is information available and we should use it. Kevin Coyne replied that we can bring these datasets together for comparison.

Jennifer Hecker asked why these four examples were selected. Sara Davis responded that she sat down with Beth Alvi (Department) and Beth helped her pick four examples based on her history with the BMAP. Tiffany added that all the tributary data and charts will be posted, not just the four examples, so everyone will have the opportunity to review other tributaries or whole areas. Kevin Coyne added that four were picked to show some data without making everyone sit through a lengthy presentation of many, many charts but for those who want to see them all, they will be posted.

Rae Ann asked if it is correct that the flow measurements have been discontinued. Sara responded that, yes, the Department funded the USGS to collect five years of additional flow data for TMDL purposes. Jennifer Carpenter added that the flow data was also used to calibrate the TMDL model and to provide more data for the sub-basin modelling. This will help identify hot spot areas. We are seeking input on understanding the trends we are seeing in the data and want local input. John commented that we are stuck using 2004 land use data. Sara Davis responded that they are using 2009 land use for the new TMDLs and they will also compare the 2009 land use to the previous 2004 land use data that they used for the earlier TMDLs. Tiffany noted that it is helpful to use land use data from the middle of the modelled period to calibrate the model, which may be why the 2009 land use data are being used in the new TMDLs. From a modelling standpoint, you don't want the land use data that reflect the end of the data period.

Marissa commented that there may be a newer land use data available soon from the SFWMD. Kevin Carter responded that he wasn't sure of the timetable for the new land use dataset, but he would check on it.

Sara asked Keith Kibbey and Karen Bickford to describe some of the efforts Lee County has undertaken to identify new project sites. Keith responded that their general approach was to rank the locations where the highest TN and total phosphorus (TP) concentrations occurred. They used that information to review project possibilities and have a process outlined to move forward. James asked how they plan to pick their project sites and the technology to use, particularly in built up areas where space is a premium. Keith responded that they are trying to identify the best locations for projects considering several factors. Roland added that they are also considering where public lands are available as possible project sites and where the highest treatment efficiencies could be achieved. Roland acknowledged that source controls are helpful too. Keith mentioned that there are quite a few factors that are in play for site selection.

James asked about more developed watersheds where there is no space. Keith responded, that is a big issue and they are trying to be innovative in those situations. Karen added that the county has some pilot projects that are public/private partnerships. For example, there are a lot of older, permitted stormwater systems that are no longer performing or performing well. There may be opportunities for improvements to those systems. James asked if there may be some opportunities to work with golf course ponds since he has observed some very high nutrient concentrations in those ponds.

Karen stated that there are few mechanisms in place that follow up on old stormwater systems, even though they aren't operating as permitted.

John commented that under the impaired basin rule, new development is not allowed to add loading to an impaired waterbody, or that is how it is supposed to work. In addition to their project planning, Lee County has done an urbanization assessment. The county process has some good ideas and good best management practices (BMPs), but the problem is that development is overwhelming the benefits from the projects they accomplish.

Jennifer Carpenter asked for more description of the urbanization report. John responded that it was done through the County's Conservation Advisory Committee. Maps were produced showing the expected increases in urbanization within the county. John noted that type of information should be included when policy makers are making decisions about zoning and development. They should know what the real costs will be when they make decisions to allow more urbanization.

**Discussion of future projects in tributary areas**

Sara Davis noted that she will be happy to discuss the trends and potential projects with anyone who is interested and has information to share. Sara Davis will be contacting specific stakeholders over the next few weeks for more specific feedback.

**Potential data needs**

Sara Davis added that she also wants to discuss where additional data are needed. There are some tributaries with fewer stations than others. If you have areas within your jurisdiction that you think need to be better monitored, please discuss those issues with Sara Davis.

**Next steps**

Sara Davis stated that there is plenty of work to do, as we have discussed here. The Department will continue work on new TMDL development, including the four tributaries in the tidal basin. Everyone should work on uploading their data periodically into STORET. Sara Davis will follow up with more discussion on monitoring needs for particular areas of concern or to address data gaps. The Department also plans to work on additional analyses to include more parameters such as light attenuation and changes in TN loads. There are plans to follow up with individual conversations about project ideas. The next meeting is planned for some time in June 2015. Tiffany mentioned that in the morning meeting on the Everglades West Coast basin, it was suggested that we avoid meeting during two June conferences—the Florida Lake Management Society (FLMS) conference and the Florida Stormwater Association (FSA) conference. There were no additional conflicts mentioned.

**Public Comments and Wrap Up**

Rae Ann asked if our nutrient issues with TN and TP can be ratio-based, because we see blue green algae that can fix their own nitrogen. It seems like there needs to be a TP standard, not just a TN TMDL. Karen added that it would be beneficial for the TMDLs to look at the differentiation between organic and inorganic nitrogen composition and what the sources are. Sara Davis offered to discuss this further with Karen. Jennifer Carpenter added that those kinds of considerations are done more during the BMAP stage than the TMDL state, so this is a good venue to bring up those questions.

Roland asked about the septic tank contributions and whether the Department was working on modelling the loads from septic tanks in the basin. Kevin Coyne responded that there is an ArcNLET model available for estimating septic tank loads. Tiffany added that the Department has used the ArcNLET model in selected locations with the contribution of local data, but the model is available for those who wish to use it locally. Karen noted that they tried to run the ArcNLET model, but their input datasets were too large for the version they were using at the time and crashed the model. Sara Davis offered to follow up with the county and to provide the latest version of the model.

Karen suggested that it would be nice to see a brief explanation of where the ArcNLET model has been deployed and the findings. Also a summary of the kinds of data that are needed to make it run would be helpful. Karen noted that she thought the model was sensitive to the topography and when they tried to use the model, they didn't have good topographic information, but they have better information now.

Roland added that it would be great to get credit for septic tank phase outs, to provide incentives for those kinds of efforts. Roland asked if the Department has given credit anywhere. Tiffany responded that, yes, in several basins TN credit has been given to stakeholders based on the ArcNLET calculations. Roland noted that there are about 70,000 septic tanks in Lee County. Kevin Coyne offered to follow up with Roland about the process for phase out credits and the ArcNLET model.

John noted that there were past conversations about the lack of credit for buying and conserving land. Jennifer responded that you can get credit if there is a land use change that results in a lower loading. John characterized this policy as "very regressive." There is a lot of undeveloped land and the only way to get TMDL credit is to do restoration projects. Based on the project rate of urbanization, you should get credit for conserving land because of the future loads that will be avoided. Jennifer Carpenter

responded that when you look into the future, that does make sense. However, as we are trying to reduce past loading levels, we have to tie credits to where we are now and reducing those loads.

Jennifer Hecker commented that rangeland and natural lands are grouped together. Restoring some of these lands could have a positive water quality effect but you can't measure it because of the way it is grouped, so it doesn't get awarded credit. That doesn't seem right.

Karen added that they have performed some analyses on the ecological benefits of natural lands versus highly managed systems. There is a big difference between a constructed filter marsh and a restored wetland. The filter marsh takes more funding, is labor intensive, and receives more credit, yet a natural system should be the higher goal. Jennifer Carpenter replied that we can revisit this discussion if you have some specific examples, but in the BMAP context, we are going to focus on changes in loads.

Karen responded that these are the kinds of projects that lead to the betterment of the state. The benefits are not just bits and pieces. Perhaps we need a focused study to quantify the benefits of restoring natural systems. Kevin Coyne responded that he would be happy to discuss that concept further with Karen.

Jennifer Hecker requested some more follow up on the grouping of rangelands and natural lands and the implications of that grouping.

Rae Ann asked about House Bill (HB) 7703 and how other crediting may be applied. Rae Ann asked for some feedback from the Department on what concerns or issues the agency may have about the bill or the Senate Bill (SB) 918. This request needs a quick response as a vote in the House is expected very soon. Jennifer Hecker added that the bill includes provisions for disposal of reuse water into surface waters. It is important to think about the potential nutrient loads that could be related to allowing those kinds of discharges.

**Adjourn**

The meeting was adjourned at 3:50 PM.

**Action Items**

- Kevin Carter--In response to James Evans' question, ask Peter Doering about what may have caused the TN peak in 2010.
- Kevin Carter – In response to both Tim Denison and Rae Ann Wessel, verify that there are additional water quality sites upstream of S79 at the two additional water control structures (S77 and S78).
- All--If anyone needs help with getting started with uploading data into Florida STORET, please contact Sara Davis for information and for helpful contacts in the Department's STORET section.
- All--Contact Sara Davis if you know of other data that the Department is not using but would help to increase our understanding of the basin.
- Sara Davis--By March 9th, post the Tidal Caloosahatchee water quality data and trend analyses for stakeholder review and comment.
- Sara Davis--Where appropriate, work with the TMDL group to incorporate the flow information and perform TN loading analyses for discussion at a future meeting.

- Sara Davis--Follow up with the Department's assessment group to find out more about what data are called "ion nitrogen" and then report back to the stakeholders.
- Sara Davis /Kevin Coyne--Check on the atmospheric data to see if that may account for the elevated TN levels observed around the state in 2009-2011.
- Sara Davis--Follow up with Rae Ann on her questions about the possible impacts of water withdrawals.
- Kevin Carter--Check on when there may be newer land use data available from the SFWMD and convey that information to Marisa Carrozzo.
- Sara Davis--Follow up with more discussion with stakeholders on monitoring needs for particular areas of concern or to address data gaps.
- Sara Davis--Plan the next meeting in June 2015, and avoid the FLMS and FSA conference dates.
- Sara Davis--Provide a brief explanation of where the ArcNLET model has been deployed and the findings. Also a summary of the kinds of data that are needed to make it run would be helpful.
- Kevin Coyne--Follow up with Roland about the process for phase out credits and the ArcNLET model.
- Kevin Coyne--Discuss with Karen the possibility of a focused study to quantify the benefits of restoring natural systems.
- Sara Davis--Follow up on the grouping of rangelands and natural lands and the implications of that grouping.
- Sara Davis--Put Rae Ann in touch with a Department contact that could provide feedback on agency concerns related to HB 7703/SB 918.
- Sara Davis--Post the meeting presentation to the FTP site.