From: Jaime Boswell
To: All
Date: 10/11/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

I have reviewed the pollutant model draft monitoring plan. It appears to be a very thorough plan, I only have a few suggestions. I would suggest including turbidity measurements, especially in light of the optical models that are being suggested for determining water quality targets. Turbidity is one of the key players in the optical model, and may therefore end up being of great management concern. The other suggestion is to consider the use of other indicators of fecal contamination, for example E. coli or Enterococci colonies. Some reports suggest that these are better indicators of potential human risk. Also, I have heard that DEP will be changing from the use of Fecal Coliform to Enterococci...it may be worthwhile to collect both, they apparently do not always strongly correlate with each other. One argument for the use of Enterococci is that it appears to be more viable across a wider salinity regime than Fecal coliform, this could be important especially for the coastal zone.

Jaime Greenawalt Boswell
Environmental Scientist
Charlotte Harbor National Estuary Program

From: Kevin Petrus
To: All
Date: 10/6/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

The following are comments on the draft monitoring plan from the DEP Watershed Assessment Section.

1. Section 2.2 of the plan indicates that sampling sites proposed in some of the creeks are in areas influenced by tides. How will tidal influence be removed from the flow and water quality monitoring at these sites so that an estimate of hydrologic and pollutant loads from the watershed are obtained?

2. Section 2.5 of the plan indicates that samples will be collected under dry weather baseflow and wet weather discharges. It would be beneficial to define these conditions in the plan so that the data collected are actually representative of these stream flow conditions. Baseflow conditions at gaged streams could be determined if an adequate flow record currently exists. Will wet weather conditions be based on actual stream flow conditions or rainfall events?

3. In the smaller basins, lower flows under baseflow conditions may preclude sampling. If samples cannot be collected under baseflow conditions, consideration should be given to using nearby groundwater samples to estimate stream water quality.

4. The plan proposes that the monitoring will occur over a six month period between March and August. In the basins currently being monitored, it might

be helpful if the existing data are assessed to evaluate if the March to August period should be used to represent dry and wet season conditions throughout the year.

5. Page 2-8 / Flow Monitoring Procedures

a. The Flow Tracker will obtain some valuable flow information, but it relies on human operators and gives a flow 'snap-shot' at a given time. The once-per-week flow monitoring schedule is good, it should be explicitly stated that there should definitely be an effort to utilize Flow Tracker after major rainfall events even it that means taking more than one sample for a given week, and such a goal should be made explicitly to be a part of the study.

6. Page 2-9 / YSI Sondes

a. In describing use of the YSI there is no discussion of use of the YSI in conjunction with remote data acquisition. The YSI model listed (Appendix C) can be enhanced by adding additional equipment to do this. This would permit observation of daily fluctuations of dissolved oxygen, which is known to fluctuate from night to day based on photosynthesis and temperature effects. This information would be very valuable in modeling efforts.

7. Page 2-15 /Water sample Collection and Laboratory Analysis

a. The list of tributary parameters is fairly complete, but should be amended to also include chlorophyll a. Metals iron and copper may also be useful.

b. To obtain the most information about your system during this short sample period (6 months), why is there not at least one automatic sampler proposed (for the tributaries) to observe hourly or daily fluctuations of some parameters. It might be useful to occasionally coordinate these with the EMC automatic monitoring equipment (for storm water, page 3-8)

Thanks for allowing us the opportunity to comment.
Kevin Petrus
Florida DEP Division of Water Resource Management

From: Brett Cunningham
To: Team
Date: 10/6/2006
Subject: SW Sampling Plan

Tony Janicki commented that he will need the following parameters [for development of an estuary water quality response model]:
TN
TKN
NH3
NOx
OP
TP
TSS
COD

Brett

From: Eric Livingston
To: All
Date: 10/4/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

The monitoring plan looks great. It will really provide some very needed information that we will be able to use in the upcoming stormwater rule revisions. My only comment has to do with the River Forest site. The text indicates that their stormwater system discharges infrequently. What would be very useful is to monitor how frequently it does discharge during a year and what the loads discharged were.

Eric H. Livingston
FDEP Bureau of Watershed Management

From: Tom Singleton
To: Brett Cunningham
Date: 10/3/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

Thank you for your clarifying comments regarding the draft monitoring plan. Although Kevin Petrus may provide technical comments on the plan, I have reviewed the plan and I think it looks very good.

You and the County are taking advantage of an outstanding opportunity and I applaud the thoroughness of your work.

Thomas Singleton
Florida Department of Environmental Protection

From: Brett Cunningham
To: Greg Blanchard
Date: 9/29/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

Greg,

Those are excellent comments. Thank you for taking the time to read through the report and provide thoughtful input. I am particularly intrigued by your second comment. We just received the 2004 data from SWFWMD and could come up with the land use breakdown in very short order.

Brett

From: Greg Blanchard
To: All
Sent: 9/29/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

Here are my comments on your pollutant model draft monitoring plan:

1) A real strength of this plan are the stage-to-discharge rating curves you'll receive for most of your basin monitoring points. You'll need these data to refine your model.

2) I was expecting to see a discussion or analysis of basin land use characteristics before the section outlining water quality monitoring. I don't think that its important to collect a comprehensive suite of water quality data from every basin monitoring point. I think a lot of your basins are going to have similar landuse characteristics and are amenable to grouping. You may discover that you'll have enough water quality data to adjust your pollutant model by monitoring just one representative basin from each group.

3) For the purposes of this study, I don't think it’s necessary to collect in-situ water quality measurements across a depth profile. These observations can be made from the same location as the water quality sample collections.

4) The results of the EMC study will be interesting, but I don't expect they'll help improve your pollutant model.

5) Finally, it appears that a weak El Nino will form this winter. Your program schedule depends upon typical weather patterns. How will you adapt your monitoring plan if we experience an atypical 'wet' spring? Your 'dry season' data may be missing.

Greg Blanchard
Environmental Manager
Manatee County Environmental Management Dept.

From: Jeff Herr
To: Warren Davis
Date: 9/29/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

Warren, The plan, Section 3.2 indicates flow weighted composite samples will be collected. We will be able to distinguish between base flow and storm event runoff based on water flow rates measured by the water flow meter connected to each sampler. We can monitor for oil and grease and/or hydrocarbons if desired by the County, but this will increase the cost of the monitoring. Thanks for your comments.

Jeff Herr, P.E.
Water Resources Program Manager
PBS&J

From: Warren Davis
To: All
Date: 9/28/2006
Subject: Review and Comments Requested – Pollutant Model Draft Monitoring Plan

Just a couple of comments: For stormwater runoff collection at the EMC monitoring locations, I was not clear from the plan whether there would be grab and/or composite samples. If just grab samples, then I assume that the samples will be collected nearly simultaneously at the different EMC monitoring locations using the ISCO autosamplers. If composite, then will it be flow-weighted time-composite samples and somehow assured that the automatic sampler collected water from the storm and not just normal flows.

Is there any value to getting grab samples for oil and grease and/or total petroleum hydrocarbons?

Warren Davis
Sarasota County Water Resources

From: Brett Cunningham
To: All
Date: 9/28/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

As you review the Draft Monitoring Plan, please note the following three items:

* As part of the larger watershed management efforts currently underway in the County, the pollutant loading model will need to accurately calculate loads at approximately a monthly scale. The flows and loads from the pollutant loading model will be used as part of the input for Bay response models. The proposed monitoring should support verification of loads at that time scale.

* With the Florida Friendly Landscaping and Low Impact Development sites potentially funded through sources outside of this project, the remainder of the recommendations may be achievable under the existing project budgets (based on preliminary estimates).

* The monitoring plan makes no attempt to collect event mean concentration (EMC) data similar to what has previously been collected in the area and region. EMC monitoring is isolated to a few specific cases where little or no data exist.

Brett Cunningham, P.E.
Jones Edmunds & Associates

From: John Ryan

To: All
Sent: 9/26/2006
Subject: Review and Comments Requested - Pollutant Model Draft Monitoring Plan

Hello Colleagues:

In cooperation with the SWFWMD and others, Sarasota County contracted with JEA and PBS&J to enhance our existing pollutant load model through improved modeling and through verification sampling. PBS&J recently created a DRAFT monitoring plan to measure quantity and quality of water carrying pollutant load to our creeks and bays.

It is our intention to use the enhanced model to accurately estimate loads and yields in regard to TMDLs, for our NPDES Stormwater system permit, for development of a Level of Service for our Stormwater Environmental Utility, and for decision making about projects to improve water quality through CIP or maybe even regulation.

Your review of this monitoring plan is requested.

Your comments are welcome, including strong disagreements, detailed analyses, or general suggestions. It is our intent to use your feedback to improve the monitoring plan which is a critical element of we expect will be an accurate and useful pollutant load model.

The Monitoring Plan is available online at
http://www.sarasota.wateratlas.usf.edu/news/committees.asp?GROUPID=61&ACTIVE=1

and is titled:
Sarasota County Pollutant Load Model Refinement Draft Monitoring Plan 8803Kb)

If you have questions or comments or cannot access the document please contact me at jryan@scgov.net or 941-861-6213.

Thanks,
John Ryan
Sarasota County Water Resources