

**ORANGE CREEK BASIN TMDLS
BASIN WORKING GROUP
DRAFT Meeting Notes**

DATE: July 7, 2005

TIME: 9:30 AM

LOCATION: Gainesville, Florida - GRU

Meeting Attendees: (Names in bold are BWG members, names in italics are alternates)

Name	Affiliation
Mary Paulic	DEP, Tallahassee
Terry Pride	DEP, Tallahassee
Jeff Martin	DEP/NED
Jennifer Gihring	DEP, Tallahassee
Fred Calder	DEP, Tallahassee
Nathan Bailey	DEP
Jody Lee	DACS
Alan Obaigbena	DOT
Chris Bird	ACEPD
Robin Hallbourg	ACEPD
Andy Renshaw	City of G'ville
Alice Rankeillor	City of G'ville

Name	Affiliation
David Walker	SJRWMD
Lori Hazel	SJRWMD
Erick Smith	UF
Paul Davis	GRU
<i>Rick Hutton</i>	GRU
Jamie Hope	GRU
Phil Gornicki	FL Forestry Assoc.
<i>Rob Hicks</i>	Forestry Industry
R.M. Fry	TCWAC
Carol Higman	ACEPAC/WWG
Gail Mowry	Marion County
Alan Toms	Marion County
Tim Markey	UF Law @ SJRWMD

Not Represented

DEP-Paynes Prairie	FWCC
DOF	Sierra Club
ACPW	Builders Association
DCA (ex officio)	

HOUSEKEEPING

- o No comments were received on the June 2 meeting notes. The BWG reviewed action items from the June meeting.
- o **ACTION ITEMS HELD OVER FROM JUNE:**
 - Terry Pride will re-send the narrative description to the Basin Working Group (BWG) for review and comments. No comments have been received thus far.
 - Mary will coordinate with UF and DEP staff to analyze the contribution of phosphatic soils to background nutrient loading.
 - Carol Higman will work with local governments to collect land use and zoning maps.
 - Mary will contact the Town of Windsor to determine whether they should be directly involved in BMAP development.

UPDATES

Alachua Sink:

- o The Alachua Sink TMDL document is currently under review by Daryll Joyner, DEP. It has not yet been noticed for rulemaking.
- o Plans are for Fay Baird to start working with the BWG on implementation of the Alachua Sink TMDL in September, pending its adoption.
- o **ACTION ITEMS:**
 - Terry will contact Daryll and provide an update to the BWG on status of the Alachua Sink TMDL.
 - Mary will contact Wayne Magley (DEP) regarding any remaining questions raised by comments provided by BWG members.

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Basin Map:

- o **ACTION ITEM:** Mary Paulic will revise the basin map per information received from BWG members. She needs to get with Gainesville to interpret the data she received from them.

Sewer/Septic Tank Mapping:

- o The wastewater infrastructure map has not been revised, as additional information from Marion County is forthcoming. This will include information on septic systems and package plants; there is no central sewer service in the portion of Marion County that overlaps the Orange Creek Basin.
- ☼ **ACTION ITEM:** Gail Mowry will send Marion County's wastewater map to Jennifer Gihring.

BMP SURVEY

- o Mary Paulic reviewed a draft BMP survey that is being used in the Upper Ocklawaha basin (see handout). The purpose of this survey is to obtain a common level of information regarding structural and non-structural stormwater BMPs being used by various local governments. This survey will help identify MS4 BMPs that may help achieve/maintain TMDLs and will allow local governments to document their activities in the BMAP.
- o BWG members noted that the survey responses may be split between items that will be addressed by the regional partnership and those that will be addressed by individual entities.
- o Alan Obaigbena asked if DEP would consider as an alternative an existing survey that he could send.
- o **ACTION ITEMS:**
 - Mary will revise the survey (e.g. remove references to the Wekiva), email it to the BWG for comments, and make further revisions, if necessary, based on BWG comments. A final document will be distributed in August for completion by BWG members who are conducting BMPs.
 - Alan O. will send an alternative survey for consideration to DEP staff.

PRESENTATION ON SOIL NITRATES AND LAND USES (NICK COMERFORD, UF)

- o Dr. Nick Comerford and Christine Bliss (University of Florida) reviewed their on-going study of nitrate in soils of the Santa Fe Basin. This study compares nitrate concentrations at various soil depths across different land use categories at various times.
- o Land Use Details: Improved pasture did not include dairies, due to access difficulties. "Forest regeneration" includes silviculture lands within 3 years of having been replanted. "Pine plantation" lands were typically those that were planted at least 5 years ago. "Upland forest" included less managed forested areas where fertilization is unlikely to occur.
- o Site selection was random, using GPS coordinates closest to access points.
- o The data do not account for differences in intensity of land use.
- o Key Points of the Study
 - Generally, crop land and improved pasture showed the highest concentrations. Despite its limited acreage (~ 5% of the Santa Fe basin), cropland has a significant influence on nitrate-N concentrations in surface water due to high loading rates and close proximity to surface waterbodies.
 - Interactions were observed between season, soil water retention capacity, and land use.
 - A pattern of high nitrate-N concentrations at shallow depths and just below the root zone, with a zone of lower concentration in between, is consistent with data from other sites across the country that have been fertilized for many years.
 - Dr. Comerford confirmed that proximity of land use to waterbodies is critical to the impact of the land use on water quality.
- o Next Steps
 - Sampling will be completed by September, lab analyses by October, and manuscript by spring 2006.

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- Dr. Comerford and his students are working to tease-apart the impact of the natural phosphorus levels in local soils upon extractable phosphorus, including an attempt to link fertilizer history of large silviculture operations with observed nitrate-N concentrations. Completing a similar analysis on other land uses to identify the benefits of BMP implementation is not feasible due to the lack of information and high variability.
- Dr. Comerford is open to conducting additional analyses as requested by the BWG, given sufficient time and data availability.
- UF will be getting fertilizer histories from Plum Creek and Rayonier and will match that up with other information.
- They still need to determine how the high phosphate levels affect the interpretation of the data.
- o Application to Orange Creek BMAP
 - Soils that underlie pine plantations in the Santa Fe are very similar to soils that support pine plantations near Newnan's Lake. Thus, the results may be informative for the Orange Creek basin.
 - The relative influence of groundwater on the basin's lakes will need to be investigated further before information from Dr. Comerford's study can be fully utilized.
 - Only the Newnan's Lake TMDL currently has a groundwater input included. However, groundwater will likely receive an allocation in the BMAP.

WATER QUALITY ISSUES TO BE ADDRESSED IN THE BMAP*

- o The group discussed the revised version of "Table 1. Summary of Water Quality Issues/Sources Related to TMDLs Developed for the Orange Creek Basin" (see handout)
- o GRU Main Street Plant
 - The group discussed the impact of temporary water quality excursions by the GRU Main Street Plant. Although the Main Street Plant discharges into Sweetwater Branch, which is listed for coliforms, the TMDL was based on data taken upstream of the Main Street Plant. BWG members also mentioned that the TMDL is based on chronic loading, not acute excursions.
 - Paul Davis presented narrative and graphic information to support the removal of the Main Street Plant from the issues list for Sweetwater Branch.
- o The BWG expressed an interest in prioritizing the issues table. Some expressed concern about whether or not this is a worthwhile exercise. The group agreed to continue with the initial steps of prioritization as a mechanism to identify areas of common ground.
- o DOT and Gainesville asked what the position the MS4s would be in if they can't make required reductions with retrofits. Fred Calder stated that we can't expect to take these areas back to natural conditions. We will need to check to see if the TMDLs included adjustments for this.
- o Jody Lee reported that his review of land use aerials did not reveal much agricultural land use in the basin. Chris Bird offered that the property appraiser's office would have information on agricultural uses via exemptions claimed. Chris will take the lead on getting this information back to the BWG by the September meeting. Jeff Vowell can help identify silvicultural areas.
- o **Spreadsheets from David Walker**
 - David Walker (SJRWMD) reviewed the preliminary Baseline Pollutant Source analysis tables. Using information taken from the TMDL documents (for nutrients), these tables represent a way to organize existing information and quantify the relative contribution of individual and/or groups of sources. This type of analysis can support prioritization of sources and may help determine detailed allocations.
 - Coliforms may need to be treated differently. Input from working group members regarding how to modify this approach to address coliforms is welcome.
 - Mary Paulic suggested using the 1996 SJRWMD future land use map as a base to start with for projecting future loading impacts, which we would modify with any more

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recent information collected (Carol Higman working on collecting). The group agreed we would first collect all available information and then decide where to head with it.

o ACTION ITEMS:

- Chris Bird will coordinate with the Alachua County property appraiser's office to identify properties in the Lochloosa/Cross Creek and Hatchett Creek sub-basins that are receiving an agricultural tax exemption. He will remove the large silviculture areas and coordinate with Sally Adkins and Jody Lee to help identify remaining crop types based on available aerial photos.
- Mary will check with Jeff Vowell to determine if he has information (e.g. NOI submittals) that may inform the sources analysis.
- Mary will check with Wayne Magley to see if the OCB TMDLs account for changed background conditions.
- ☀ David will coordinate with Terry to confirm the TMDL values for Lake Wauberg and correct the Issues Categorization/Pollutant Source analysis handouts.
- Check on what water/wetland means in TMDL (i.e. why does water have an EMC? Or does this refer to wetlands only?)
- ☀ Terry will revise the table and distribute it to the BWG. Members will prioritize the primary issues and return this information to Terry.
- GRU (Rick Hutton) will provide data to the BWG on past excursions at the Main Street Plan.

PRELIMINARY CONCEPTS FOR MAKING ALLOCATIONS

- o Deferred to next meeting

SCHEDULE/TOPICS FOR REMAINDER OF 2005*

- o Deferred to next meeting

AGENDA ITEMS FOR AUGUST MEETING

- o Update by GRU on the status of their bacteria source tracing
- o Review of other bacteria source data
- o Deferred items
- o Review of revised issues table and sources spreadsheets
- o Review of land use information collected to date
- o Finalization of BMP survey
- o Other

OUTREACH

- No additional outreach was requested at this time.

Next meeting: August 4, 2005, at GRU