



Withlacoochee River Basin Board

*Information and Budget
Notebook*

*Thursday,
April 10, 2008
9:00 a.m.*

*Withlacoochee
River*

Southwest Florida
Water Management District

WATERMATTERS.ORG • 1-800-423-1476

*Brooksville Headquarters
2379 Broad Street
Brooksville, Florida
(352) 796-7211*

WITHLACOOCHEE RIVER BASIN BOARD

Ronald E. Oakley, Chair Ex Officio

Seeth Trimpert, Vice Chair

Janey Baldwin, Secretary

Jack Dennis, Member

Paul Mazak, Member

Bo Rooks, Member

Patricia "Patsy" Nathe, Member

Committee Representatives:

Basin Board Education Committee

Primary: Patsy Nathe

Alternate: Janey Baldwin

Basin Board Land Resources Committee

Primary: Bo Rooks

Alternate: Seeth Trimpert

Citrus/Hernando County Waterways Restoration Council

Primary: Bo Rooks

Alternate: Jack Dennis

**Withlacoochee River Basin Board
Meeting Agenda**

Brooksville, Florida

April 10, 2008

9:00 a.m.

<u>ITEM</u>	<u>PRESENTER</u>
1. Call to Order and Roll Call	Ronald E. Oakley/Annette Zielinski
2. Pledge of Allegiance to the American Flag	Ronald E. Oakley
3. Additions and Deletions to the Agenda	Lou Kavouras
4. Oath of Office for Appointed/Re-Appointed Board Members	Lou Kavouras
5. Consent Items:	
a. February 14, 2008, Meeting Minutes [<i>Exhibit 5.a.</i>]	Lou Kavouras
b. District's Watershed Management Program and FEMA Map Modernization – Hernando County Cooperative Funding Agreements	Mark Hammond
6. Discussion Items:	
a. Election of Officers and Committee Representatives	Ron Oakley
b. Consumer Fertilizer Task Force Report [<i>Exhibit 6.b.</i>]	Veronica Crow
c. Fiscal Year 2009 Budget Preparation [<i>See Budget Tab</i>]	Bruce Wirth
7. Reports:	
a. Basin Board Education Committee [<i>Exhibit 7.a.</i>]	Janey Baldwin
b. Report on Governing Board Activities	Ron Oakley
8. Announcements:	Lou Kavouras
a. Volunteer Appreciation Day: Saturday, April 26, 2008, 11:00 a.m., Nature's Classroom, Thonotosassa	
b. Tampa Bay Water Facilities Tour: Friday, May 30, 2008; 8:30 a.m., Tampa Service Office	
c. Next Basin Board Meeting: Thursday, June 12, 2008, 9:00 a.m., District Headquarters	
d. Tentative Basin Board meeting: Thursday, July 24, 2008, 9:00 a.m., District Headquarters	
e. Other	
9. Adjournment	Ron Oakley

Information items are included in the Summary Agenda.

If you have questions about this meeting, please call 1-800-423-1476 or 352-796-7211, x4610.

SUMMARY AGENDA

Withlacoochee River Basin Board Meeting

Thursday, April 10, 2008

9:00 a.m.

1. **Call to Order and Roll Call**

Presenters: Ronald E. Oakley, Chair Ex Officio
Annette Zielinski, Senior Administrative Assistant
Boards and Executive Services

2. **Pledge of Allegiance to the American Flag**

Presenter: Ronald E. Oakley, Chair Ex Officio

3. **Additions and Deletions to the Agenda**

Presenter: Lou Kavouras, Deputy Executive Director
Outreach, Planning and Board Services

4. **Oath of Office for Appointed/Re-Appointed Board Members**

Presenter: Lou Kavouras

5. **Consent Items:**

a. **February 14, 2008, Meeting Minutes**

Basin Board members were provided minutes of the February 14, 2008 meeting for review.

Staff Recommendation: See Exhibit 5.a.

Approve the February 14, 2007, meeting minutes, as presented.

Presenter: Lou Kavouras

b. **District's Watershed Management Program and FEMA Map Modernization - Hernando County Cooperative Funding Agreements**

Purpose

This is an action item to request the Basin Board approve amendments to Cooperative Funding Agreements with Hernando County to update the watershed models in two Hernando County watersheds including Blue Sink and Little Withlacoochee River. The amendments will allow the funds originally budgeted for alternatives analysis of Best Management Practices (BMPs) to be used to update the watershed models to incorporate the new 2007 LiDAR topographic information and account for infiltration. The watershed models need to be updated so they can be used for floodplain mapping to support the District's Watershed Management Program (WMP) and Federal Emergency Management Agency's (FEMA) Map Modernization.

Background/History

The District initiated a partnership with the FEMA to modernize Flood Insurance Rate Maps (FIRMs) as part of our WMP. Flood protection and floodplain information has been a priority at the District since the inception of the organization and that priority was renewed following the El Niño weather event in 1997-1998. In addition to studies conducted by the District (primarily through the basin boards) and others, information on floodplains (elevations) is available through the FEMA FIRMs. However, many of the existing maps do not accurately represent the flood prone areas either because the initial studies were technically limited or the maps are outdated due to significant land use changes since completion. To improve the floodplain information and improve local government's understanding of their flood protection level of service the District reached out to local governments, and initiated the WMP in the late nineties.

The District recognized a potential funding partner in FEMA as they had mutual goals to improve the existing FIRMs to better identify risks of flooding within the District. The District and the FEMA executed a Cooperating Technical Partners (CTP) Memorandum of Agreement on September 14, 2001 to formalize the relationship. As a CTP, the District is eligible for federal funds to act as FEMA's partner in modernization of the FIRMs. FEMA's funds are primarily used for watershed modeling and floodplain analysis tasks and to prepare the FIRMs as not all elements of the District's WMP are eligible for funding under FEMA's mapping support. The District is implementing the map modernization program through the WMP and the federal funds have allowed the District and local governments to accomplish significantly more than would otherwise been possible. To date, the District has received approximately \$11.2 million in federal funds from FEMA for countywide map modernization projects for Pasco, Sarasota, Hernando, Marion, Polk, Hardee, Desoto, Citrus, Sumter, Levy, and Highlands Counties. An additional \$0.9 million is expected in future fiscal years for countywide map modernization projects for Manatee County. The Map Modernization program also includes federal funding for management support. For fiscal year (FY) 2004 through FY2007 the District received \$713,240 and could receive an additional \$500,000 through FY2012.

In 2004, the District received a \$1.7 million FEMA grant to update the FIRMs in Hernando County. The District, County, and FEMA agreed to use the funds to develop watershed models for floodplain mapping. Approximately \$1.3 million of the FEMA grant was used to develop watershed models for 13 of the 22 Hernando County watersheds including Blue Sink and Little Withlacoochee River. Preliminary floodplain maps were generated from the watershed models in late 2006. FEMA's deadline for preparing the preliminary floodplain maps was originally September 2007, and in May 2007 they approved an extension until November 2008.

In its FY2006 budget, and in response to a cooperative funding request from Hernando County, the Withlacoochee River Basin Board approved funding for the alternatives analysis of BMPs for the Blue Sink (\$109,190) and Little Withlacoochee River (\$83,500) watersheds. Half of the funds budgeted was revenue from Hernando County. The funds were budgeted to use the watershed models developed with the FEMA funds and to evaluate alternatives to address the County's Level of Service and prepare watershed management plans for each watershed.

Since January 2007, District staff has been involved with interested parties regarding the District's Watershed Management Program and FEMA Map Modernization as a result of the preliminary floodplain maps developed for Hernando, Pasco, and Sarasota Counties. Several issues were identified focusing on technical methodologies, quality control and

public input. District staff grouped the issues into the following categories: Rainfall Duration, Quality Control/Peer Review, Outreach, and Schedule.

The District's number one priority for the Watershed Management Program is to get the flood elevations right. For Hernando County, this means the watershed models need to be updated to incorporate the 2007 LiDAR topographic information that was funded by the Basin Board and County and to account for infiltration. The District anticipated the need to periodically update the watershed models and the basin boards and Governing Board have budgeted funds each year as a basin initiative under B206 Maintenance of Watershed Parameters & Models. However, the cost to update all 22 watersheds in Hernando County to incorporate the new topographic information and account for infiltration is more than what the District has budgeted through FY2008.

As a result, District staff recommends the Basin Board approve the amendments to the agreements with Hernando County for the Blue Sink and Little Withlacoochee River watersheds. The amendments will allow the funds previously budgeted by the Basin Board and County for alternatives analysis to be used to update the watershed models instead of conducting the alternatives analysis. Staff has proposed budgeting additional funds in FY2009 for the alternatives analysis and watershed management plan elements once the watershed models are updated.

Impact if not funded

The models will not be updated to provide reasonable floodplain information. The BMP Alternative Analysis will not be performed.

Staff Recommendation:

Recommend the Governing Board authorize the Executive Director to sign the Amendments to the Cooperative Funding Agreements with Hernando County to allow the funds originally budgeted for alternatives analysis to be used to update the watershed models for the Blue Sink (\$109,190) and Little Withlacoochee River (\$83,500) watersheds.

Presenter: Mark A. Hammond, Director, Resource Projects Department

6. Discussion Items:

a. **Election of Officers and Committee Representatives**

1. **Vice Chair**

Each year in compliance with Section 373.0693 Florida Statutes, Basin Board members elect a vice chair to serve for a one-year term. The vice chair presides over meetings in the absence of the Chair Ex Officio. The current vice chair is Seeth Trimpert.

Staff Recommendation:

Elect a vice chair to serve a one-year term.

Presenter: Ron Oakley

2. **Secretary**

Each year in compliance with Section 373.0693 Florida Statutes, Basin Board members elect a secretary to serve a one-year term. The current secretary is Janey Baldwin.

Staff Recommendation:

Elect a secretary to serve a one-year term.

Presenter: Ron Oakley

3. **Primary and Alternate Representative to the Basin Board Land Resources Committee**

Each year each Basin Board selects a primary and alternate representative to serve on the Land Resources Committee to review staff's resource evaluation reports and the Florida Forever Work Plan, from a District-wide perspective. Bo Rooks is the current primary representative; the alternate is Seeth Trimpert.

Staff Recommendation:

Select a primary and alternate representative to serve one-year terms.

Presenter: Ron Oakley

4. **Primary and Alternate Representative to the Basin Board Education Committee**

The Basin Board Education Committee was formed in 1995. A representative is chosen from each basin in order to facilitate communications between Board meetings to discuss issues and opportunities that arise. The current primary representative is Patsy Nathe; Janey Baldwin is the alternate.

Staff Recommendation:

Select a primary and alternate representative to serve one-year terms.

Presenter: Ron Oakley

5. **Citrus/Hernando County Waterways Restoration Council**

Each year the Basin Board selects a representative to serve on the Citrus/Hernando County Waterways Restoration Council. The current primary representative is Bo Rooks; Jack Dennis is the alternate.

Staff Recommendation:

Select a primary and alternate representative to serve one-year terms.

Presenter: Ron Oakley

b. **Consumer Fertilizer Task Force Report**

Purpose

The purpose of this presentation is to provide the Board with a brief overview of the work of the Florida Consumer Fertilizer Task Force and a summary of their final report to the 2008 Florida Legislature.

Background/History

The Florida Consumer Fertilizer Task Force was created within the Department of Agriculture and Consumer Services (DACS) by the Florida Legislature on July 1, 2007 (Section 576.092 F.S.) to review and provide recommendations on the state's policies and programs addressing consumer fertilizers. The Task Force was made up of 13 members representing local government, the environmental community, the fertilizer and landscape industries, the Department of Environmental Protection, the University of Florida, the Water Management Districts, DACS, and the Florida Senate and House of Representatives. The Task Force developed a series of recommendations addressing statewide guidelines and standards for consumer fertilizer use, local government management of consumer fertilizer application, training and education of proper use, research studies, and funding.

In developing recommendations, the Task Force ensured that their decisions were informed by the best available consensus-based data and science. They assessed nutrient enrichment due to fertilizer and focused on reducing water quality impacts associated with non-point source pollution. The Task Force strove to assist local governments to comply with state and federal water quality standards, and to provide uniformity while accounting for geographic diversity and variations within Florida.

The Final Report recommended support for the current DACS labeling rule (Rule 5E-1.003(2)) with the understanding that the rule will be reviewed and revised based on updated science by December 31, 2012. It was recommended that the Limited Commercial Landscape Maintenance certification be expanded to include fertilizer best management practices. In addition, a model ordinance concerning the use of nonagricultural fertilizer was developed for use by local governments who chose to adopt it. The Task Force supported public education regarding fertilizer use based on the University of Florida Institute of Food and Agricultural Sciences six best practices for lawn care and they supported the continued support of ongoing research projects on fertilizer management. Finally, the Task Force recommended a dedicated funding source be provided for education and training by authorizing DACS to increase their tonnage fee on the sale of nitrogen and phosphorus.

The Final Report was adopted unanimously by the Task Force at their January 11, 2008 meeting and DACS was authorized to transmit the document to the Legislature on January 15, 2008. The Task Force was abolished upon submittal of the Final Report. Representative Bryan Nelson (Apopka) filed HB 1267, titled *Protecting Urban and Residential Environments and Water*, on February 29, 2008 based on the recommendations of the Task Force.

Staff Recommendation:

See Exhibit 6.b.

This item is for the Board's information only; no action is required.

Presenter: Veronica Crow, Manager, Resource Projects Department

c. **Fiscal Year 2009 Budget Preparation**

In April, the Withlacoochee River Basin Board will review for the first time a preliminary budget for the upcoming year. Staff will review the budget for discussion and initial direction from the Basin Board concerning funding levels of the various budget categories, including prioritization of Cooperative Funding proposals and other Basin

projects. The preliminary budget assumes the millage rate will remain at 0.2308 and ad valorem revenues will be 5 percent below FY2008 for a total of \$5,132,622. This revenue estimate is for planning purposes and is based on the tax reform legislation enacted in 2007 (House Bill 1B) and the constitutional amendment (Amendment 1) that was passed on January 29, 2008. This revenue planning estimate is consistent with the results of the March 6, 2008 Ad Valorem Revenue Estimating Conference of the Office of Economic & Demographic Research, the Florida Legislature.

At the June Basin Board meeting, staff will provide an updated estimate of ad valorem revenue for FY2009, based on the June 1 estimate of taxable property values that are provided by the county property appraisers for budget planning purposes. However, the June 1 estimate is not required to specify the amount of new construction, which is needed to compute the maximum millage rate pursuant to section 200.185 (5)(a), Florida Statutes (created under House Bill 1B, as enacted). The actual impact of Amendment 1, growth in property values, and amount of new construction will not be known until property values are certified by county property appraisers between July 1 and July 15. In July, the Basin Board will vote on a final FY2009 millage rate and budget for recommendation to the Governing Board. This is the millage rate that will be used for the Truth in Millage (TRIM) Notices of Proposed Property Taxes.

The Budget tab provides the preliminary Budget Comparison Report for FY2009. The format separately identifies the portion of the budget that will be funded by outside revenue sources from the portion of the budget that will be funded from ad valorem based revenue sources (i.e., property taxes, balance from prior year and interest). The "Millage Rate Requirements" column, to the right of each project that is funded through the ad valorem based portion of the budget, indicates the funding source as Balance from Prior Year and Interest Earnings (BF/Interest) or the millage rate (e.g., 0.004) required to fund the budget through that project.

The Projects tab includes detailed information for all Cooperative Funding proposals submitted for consideration. Project managers have reviewed and provided a staff recommendation for each proposal.

For FY2008, the Withlacoochee River Basin Board adopted a millage rate of 0.2308. This rate was 12.9 percent less than the FY2007 millage rate of 0.2650. The millage rate had been held at 0.2650 for the previous five years, and not increased in 13 years since FY1995 when the rate was increased to fund the Partnership Agreement. Funding from state sources (in addition to Save Our Rivers funding) will be incorporated into the Basin budget following the end of the 2008 legislative session. The amount of additional taxes that would need to be levied, if all Cooperative Funding proposals were funded, is shown as the last revenue item to balance the budget. A funding line identifies the last project that the Basin Board could fully fund at its existing millage rate, based on project rankings and revenue projections as of this date.

The staff and/or cooperators will make a presentation on the following significant projects prior to review of the overall budget:

New Development Reclaimed Water Distribution Initiative. Basin Initiative – Mark Hammond, Director, Resource Projects Department

Watershed Management Program/FEMA. Cooperative Funding – Mark Hammond, Director, Resource Projects Department

Environmental Education Center. Save Our Rivers – Eric Sutton, Assistant Director,
Land Resources Department

Withlacoochee Regional Water Supply Authority. Basin Initiative – Brian Armstrong,
Manager, Water Supply & Resource Development Section, Resource Projects
Department

Staff Recommendation: See Budget Tab

Provide staff direction on developing the Basin's tentative FY2009 budget for the June
2008 meeting.

Presenter: Bruce C. Wirth, Deputy Executive Director
Division of Resource Management

7. **Reports:**

a. **Basin Board Education Committee**

This report provides an overview of the Basin Board Education Committee meeting held
on March 11, 2008, at the Tampa Service Office. The overview will include reports
regarding the election of vice chair, the water program for restaurant outreach, FY2007
Communications Department's accomplishments, focus groups and the drought
communications plan.

Staff Recommendation: See Exhibit 7.a.

This item is presented for the Board's information only, and no action is required.

Presenter: Janey Baldwin, Alternate Representative
Basin Board Education Committee

b. **Report on Governing Board Activities**

Ron Oakley

An update will be provided on key issues before the Governing Board.

8. **Announcements**

Lou Kavouras

- a. Volunteer Appreciation Day: Saturday, April 26, 2008, 11:00 a.m., Nature's Classroom,
Thonotosassa
- b. Tampa Bay Water Facilities Tour: Friday, May 30, 2008; 8:30 a.m., Tampa Service
Office
- c. Next Basin Board Meeting: Thursday, June 12, 2008, 9:00 a.m., District Headquarters
- d. Tentative Basin Board meeting: Thursday, July 24, 2008, 9:00 a.m., District
Headquarters
- e. Other

9. **Adjournment**

Ron Oakley

****Information Items****

The item(s) listed below are for the Board's information, intended to keep the Board apprised of completed projects, cancelled projects, and projects that have executed contracts and are ready to begin. The item(s) do not require Board action at this time. Formal presentations are not planned, but staff will make presentations and/or answer questions at the next Board meeting, if requested.

1. **A Restoration Cost Share Agreement Between the United States of America Natural Resource Conservation Service and the Southwest Florida Water Management District for the Flying Eagle Shinn Ditch Hydrologic and Wetland Restoration (SA06) - Execution Notice**

This fiscal year 2007 Cost Share Agreement with United States Department of Agriculture, Natural Resource Conservation Service (NRCS) is for construction activities associated with the Flying Eagle Shinn Ditch Restoration project. The effective date of the contract is January 31, 2008 and will remain in effect through March 31, 2011. The total project cost is \$580,000 with the Basin Board contributing \$222,500. NRCS will reimburse the District up to \$357,500 for costs associated with the construction of the project. Please refer to the write-up in the Projects section of this notebook for detailed information. The Executive Director signed this agreement and copies of the executed agreement and scope of work are available upon request.

2. **Withlacoochee River Watershed Initiative (H066)**

Purpose

The purpose of this item is to update the Basin Board on the status of the Withlacoochee River Watershed Initiative and is provided for the Board's information only. Staff is not planning on a formal presentation to the Board at the April meeting but will be available to address any questions the Board may have. A detailed project work plan timeline with the schedule of activities is provided as an exhibit. This timeline will be updated and provided to the Basin Board at each of their meetings.

Background/History

As a result of continued delays and funding issues with the United States Army Corps of Engineers (USACE), the District brought forth to the Basin the option of taking on several elements of the USACE led project. At the Basin Board's April 13, 2006 meeting, the Board approved taking on elements of the project having District staff perform the Hydrology and Hydraulic studies, Surveys and Mapping, Engineering Analysis and Design tasks that were associated with the USACE Comprehensive Watershed Management Study. These tasks are critical to the Basin to understand how the alterations have impacted the system and what can be done in terms of restoration. This project involves assembling the information and watershed model for the Withlacoochee and Little Withlacoochee Rivers and corridor, the Tsala Apopka Chain-of-Lakes, Lake Rousseau and the Western Terminus of the Cross Florida Greenway, and the Green Swamp. The watershed model will be used to evaluate alternatives to better manage the water resources along the Withlacoochee River. For example, some of the target areas to evaluate include the U.S. 98 Bridge, S.R. 471, Arrow Head, the Tsala Apopka Chain-of-Lakes, and the Lake Rousseau/Lower Withlacoochee River/Cross Florida Greenways system. The information and watershed model will utilize information previously gathered by the USACE, as well as information developed through

cooperatively funded projects with local governments. The consulting services agreement with Post, Buckley, Schuh, and Jernigan (PBS&J) was signed on July 24, 2006.

Several tasks for this project are behind schedule as noted in the detailed project work plan timeline in the exhibit. The two reasons for the delays are because the survey work has taken longer than expected and District staff had to address issues associated with the Federal Emergency Management Agency (FEMA) Map Modernization work. Due to unusual conditions, the Withlacoochee River experienced low flows, which allowed staff to survey portions of the upper River in greater detail than would otherwise been possible. This also allowed staff and the District's consultant to develop an improved methodology for the survey for the rest of the River and necessary areas. While this has resulted in delays, staff believes the product will be significantly improved and at a cost savings to the District. Additionally, District staff had to be reallocated to address quality control/quality assurance issues in the FEMA Map Modernization work in Hernando, Pasco, and Sarasota counties. Staff completed the review of all watershed models in these counties and work has started to correct and update the watershed models. Staff continues to evaluate how these delays will affect the overall Watershed Initiative schedule and whether any time can be made up; however, at this time staff anticipates a three to six month delay in completing the Watershed Initiative. Below are the highlights of the recent activities associated with the project. Please refer to the write-up in the Projects section of this notebook for more detailed information.

- On February 11, 2008, PBS&J began work on the watershed evaluation/hydrologic modeling approach for a single planning unit in the Withlacoochee Basin. Based on the results in this planning unit, this approach may be applied to all planning units in the Basin that will not have a separate detailed study completed during the time frame of this project.
- On February 20, 2008, Work Order 5 was executed, authorizing PBS&J to begin work on the hydrographic survey from U.S. 301 downstream through Lake Rousseau. District staff has currently completed approximately three quarters of the upper river, from the Green Swamp downstream to U.S. 301.

See Exhibit I-2.

The District does not discriminate based on disability. Anyone requiring reasonable accommodation under the ADA should contact the Executive Department at (352) 796-7211 or 1-800-423-1476 (Florida only), extension 4610; TDD only, 1-800-231-6103 (Florida); fax (352) 754-6874/SunCom 633-6874.

If you have questions about this meeting, please call 1-800-423-1476 or 352-796-7211, x4610.

DRAFT
Minutes of the Meeting

Withlacoochee River Basin Board
Southwest Florida Water Management District

Brooksville, Florida February 14, 2008

The Withlacoochee River Basin Board of the Southwest Florida Water Management District convened for a regular meeting February 14, 2008, at 9:00 a.m., at District Headquarters.

Board Members Present

Ronald Oakley, Chair Ex Officio
Seeth Trimpert, Vice Chair
Janey Baldwin, Secretary
Jack Dennis, Member
Patsy Nathe, Member
Albert Rooks, Member

Staff Present

Lou Kavouras
Bruce Wirth
Daryl Pokrana
Linda Pilcher
Eric Sutton

Beth Putnam
Miki Renner
Kathy Scott
Jimmy Brooks
Doug Sanders

Board Member Absent

Paul Mazak, Member

Recording Secretary

Annette Zielinski

A list of others who were present and signed the attendance roster is filed in the permanent files of the Basin. Compact discs of the audio and copies of the materials and handouts, as set out in full herein, are also filed in the permanent files of the Basin.

1. **Call to Order and Roll Call**

Chair Oakley called the meeting to order at 9:00 a.m. Ms. Zielinski noted a quorum was present.

2. **Pledge of Allegiance to the American Flag**

Chair Oakley led the Pledge of Allegiance to the American Flag.

3. **Additions and Deletions to the Agenda**

Ms. Kavouras said there were no additions or deletions to the agenda.

4. **Consent Item:**

a. **December 13, 2007, Meeting Minutes**

Staff recommended approval of the December meeting minutes, as presented.

Following consideration, **Ms. Nathe moved, seconded by Ms. Baldwin, to approve Consent Item 4 as presented. Motion carried unanimously.** (CD1/Track 1 -00:00/02:01)

5. **Discussion Items:**

a. **Tampa Bay Regional Reclaimed Water Project**

Mr. Bruce Wirth, Deputy Executive Director, Resource Management Division, provided the Basin Board with an update on the Tampa Bay Regional Reclaimed Water Project (TBRRP) and the City of Tampa's plans to postpone moving forward on the project and instead focus on expanding the South Tampa Area Reuse Project (STAR). Based on the current position of the City and in light of Hillsborough County focusing its financial resources on a public/private partnership to bring its south county reuse to Tampa Electric Company in Polk County, the Regional Project is being postponed. The preliminary STAR Project Evaluation completed by consultants for the City in July 2007, is based on a conceptual plan and estimates the project will cost approximately \$40 million and take about eight years to construct. Supplying customers in the north Tampa part of its service area, consistent with original configuration of the Regional Project, is

something the City may consider in the future; however, the City has made clear it will devote its financial resources to the STAR project expansion first.

The Regional Project has been budgeted over several years by the six Basin Boards within the Tampa Bay Water service area based on population served by the project benefits. The rationale was that the project, served centrally by the Howard F. Curren Advanced Wastewater Treatment Plant (HFC Plant), was expected to significantly contribute to meeting water supply needs of TBW member governments and others in the Tampa Bay area over the next 20 years. The project was estimated to cost \$213 million when originally proposed to the Basin Boards and the Governing Board. Since then, while no funds were budgeted in Fiscal Year (FY) 2008, the District's Long-Range Financial Plan was adjusted to reflect the latest estimate of \$223 million. Approximately \$37 million has been budgeted for the Regional Project to date, of which \$7 million has been expended for planning, design and construction of various parts of the project. Most notable has been the construction of Pasco County's reuse reservoir which will provide benefits regardless of whether HFC reuse is provided or not. During the FY2009 budget cycle, staff will present recommendations to the Basin Board for using the funds now available from the Regional Project for other projects.

This item was presented for the Board's information only; no action was required. (CD1/Track 2 - 00:00/24:36)

b. **State Board of Administration Local Government Investment Pool (SBA LGIP) Status**

Mr. Daryl F. Pokrana, Director, Finance Department, said he would provide an update and answer questions Board members might have regarding the Local Government Investment Pool, which was the topic of the January 22, 2008 letter written to all Basin Board members by Governing Board Treasurer Jennifer Closshey. Mr. Pokrana provided a brief summary of how the investment pool relates to the Withlacoochee River Basin Board. He said the Withlacoochee River Basin Board has \$5.7 million invested in the SBA LGIP; \$4.9 million of those funds are invested in Fund A which is considered less risky than Fund B. The Withlacoochee River Basin Board has \$800,000 in Fund B; \$320,000 was considered impaired but collectible. Mr. Pokrana said by June 2008, 80 percent of these funds will have matured and the District will be able to calculate any losses at that point. To minimize losses, the District has been liquidating funds as money has been becoming available from the SBA LGIP and reinvesting.

This item was presented for the Board's information only; no action was required. (CD 1/Track 3 – 00:00/07:07)

c. **Budget Update in View of the January 29 Special Election**

Ms. Linda Pilcher, Assistant Director, Finance Department, provided the Board with an update regarding the results of the Property Tax Exemption Amendment and its projected effect upon the Basin's budget. Ms. Pilcher reviewed the Amendment Provisions, the Assumptions and Variables, and the Basin's Preliminary FY2009 Ad Valorem Revenue Projection. For planning purposes, it is estimated that the FY2009 ad valorem revenue will be reduced five percent from the FY2008 rate. The final ad valorem values will not be known until July. Staff will be back in April to update the Board with any new developments.

Ms. Kavouras reminded Board members that July 24, 2008 has been added on the schedule of the Board meeting dates. As it stands now, Basin Board meetings are scheduled for three consecutive months: June, July, and August.

This item was presented for the Board's information only; no action was required.
(CD 1/Track 4 – 00:00/09:06)

d. **FY2009 Cooperative Funding Requests**

Mr. Doug Sanders, Staff Planner, Planning Department, provided an overview of the Cooperative Funding Initiative (CFI) and applications received for the FY2009 budget year. He reviewed the FY2009 Cooperative Funding procedure and directed the Board to the original applications, which were received in December and provided behind the *FY2009 CFI Applications* tab in the meeting notebook. Mr. Sanders also provided a brief overview of the Basin's project submittals and reviewed the District's project ranking process in light of recent changes to Governing Board CFI policy. Staff will return to the April meeting with initial project rankings and funding recommendations for the Board's consideration. The preliminary budget will be presented and the millage cap set at the June Basin Board meeting. Final approval will occur in July or August, depending on the Governor's timeframe for submittal of the Governing and Basin Boards' budgets to Tallahassee.

The Board was encouraged to review the FY2009 project applications and be prepared to provide input at the April 7 Basin Board meeting.

This item was presented for the Board's information only; no action was required.
(CD 1/Track 5 – 00:00/05:26)

6. **Reports:**

a. **Report on Governing Board Activities**

At Chair Oakley's request, staff played the pre-recorded highlights of the January 29, 2008 Governing Board meeting. Ms. Robyn Hanke, Communications Manager, Communications Department, narrated the brief video, which included recent agreements regarding the Weeki Wachee lease, Marion County water restrictions, and restoration of Sawgrass Park in southern Pinellas County.

7. **Announcements:**

Ms. Kavouras said the Joint Governing and Basin Boards Workshop will be held Friday, February 22, 2008, at Nature's Classroom, in Thonotosassa. The Governing and Basin Boards will have lunch together beginning at noon. At 1 p.m., the Joint Governing and Basin Boards Workshop will convene. Tours of Nature's Classroom facility will begin at 10:30 a.m. for Basin Board members who wish to participate.

In addition to directing the Board's attention to announcements listed in the agenda, Ms. Kavouras said staff is moving forward with four community education grants for the Withlacoochee River Basin totaling just over \$11,000.

8. **Adjournment**

The day's business being complete, Chair Oakley adjourned the meeting at 10:00 a.m. (CD 1/Track 5 – 05:26/18:28)

★ ★ ★ Information Items ★ ★ ★

The items listed below were for the Board's information, intended to keep the Board apprised of completed projects, cancelled projects, and projects that have executed contracts and were ready to begin. The items did not require Board action at this time.

1. **2008 Community Education Grants in the Withlacoochee River Basin**
2. **Gum Swamp Watershed Management Plan (L954) – Execution Notice**
3. **Hernando County Maintenance of Watershed Parameters and Models (B206) - Execution Notice**
4. **Hernando County Reuse Feasibility/Reclaimed Water Master Plan (L959) - Execution Notice**
5. **Hernando County Ridge Manor/Hickory Hills Reclaimed Water Transmission Main (L960) - Execution Notice**
6. **Water Supply Flow Monitoring Project (H057) - Execution Notice**
7. **West Ocala Watershed Management Plan (L955) – Execution Notice**
8. **Withlacoochee River Watershed Initiative (H066)**

The District does not discriminate based on disability. Anyone requiring reasonable accommodation under the Americans with Disabilities Act should contact the Executive Department at (352) 796-7211 or 1-800-423-1476 (Florida only), extension 4610; TDD only, 1-800-231-6103 (Florida); fax (352) 754-6874/SunCom 633-6874.

**FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER
SERVICES**

**FLORIDA CONSUMER FERTILIZER TASK FORCE
FINAL REPORT**

TO THE 2008 FLORIDA LEGISLATURE



JANUARY 15, 2008

<http://consensus.fsu.edu/Fertilizer-Task-Force/index.html>



Report By Jeff A. Blair and Robert Jones
Florida Conflict Resolution Consortium
Florida State University



FINAL REPORT
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FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

FLORIDA CONSUMER FERTILIZER TASK FORCE
FINAL REPORT
JANUARY 15, 2008

Executive Summary

The Florida Consumer Fertilizer Task Force was created by the Florida Legislature in 2007 to review and provide recommendations on the state's policies and programs addressing consumer fertilizers. It was comprised of 13 individuals representing a range of stakeholder interests who were technically qualified by training, education, or experience in water quality, horticultural, or agronomic science and who were appointed, respectively, by the President of the Senate, Speaker of the House, Commissioner of Agriculture, Florida League of Cities, and the Florida Association of Counties. The Florida Department of Agriculture and Consumer Services (DACS) provided the staffing and support for the Task Force.

Using the services of the professional facilitators of the Florida Conflict Resolution Consortium at Florida State University, the Task Force adopted a consensus process that required support of 75% of its members for any substantive decisions on findings and recommendations. During the course of six public meetings between September 6, 2007 and January 11, 2008, the Task Force developed a series of recommendations addressing statewide guidelines and standards for consumer fertilizer use, local government regulations based on sound science and a model local ordinance for consumer fertilizers, local government mechanisms to promote and encourage proper use, training and education on proper use, research studies, and funding. The Task Force took public comment at each meeting and provided a website for dissemination of meeting information, key documents, and public input.

During the course of the process the Task Force found that nutrient reduction in phosphorous & nitrogen requires a comprehensive, multi-faceted approach, and consumer fertilizer is an important component of this effort. The Task Force expects that through implementation of the DACS rule and registration process and the Task Force's recommendations, there will be a significant reduction in phosphorous and nitrogen applied in the urban environment that will contribute to decreasing environmental impacts and non-point pollution sources. In developing recommendations, the Task Force ensured that their recommendations were informed by the best available consensus-based data and science, assessed nutrient enrichment and surface waters due to fertilizer, focused on reducing water quality impacts associated with fertilizer as a component of non-point source pollution, assist local governments to comply with state and federal water quality standards, and provide uniformity while accounting for geographic diversity and variations within Florida.

Key recommendations adopted by the Task Force include:

1. Support for the current DACS labeling requirements for urban turf fertilizers, Rule 5E-1.003(2), and that the Rule serve as the statewide guideline for formulations, with the understanding that the rule will be reviewed and revised based on updated science by December 31, 2012.
2. Expansion of the Limited Commercial Landscape Maintenance (LCLM) certification established in Chapter 482, F.S. and additional authority to require all commercial applicators to have an appropriate certification based on modifying existing LCLM to include fertilizer best management practices (BMP's) and by adding BMP's and updates to continuing education requirements. In addition, the Task Force recommended that the Legislature modify Chapter 482 to authorize DACS to require limited certification for those who only apply fertilizer commercially (a new "Limited Commercial Fertilizer Applicator Certification" LCFAC). The Task Force recognized that the

existing Green Industry BMP training network, including DEP, IFAS, industry and private training providers could conduct the training necessary for obtaining this new certification.

3. A model ordinance concerning the use of nonagricultural fertilizer for use by local governments who choose to adopt an ordinance as directed by the Legislature. The Task Force recommended that Local Governments can adopt additional or more stringent provisions to the model ordinance provided the local government can demonstrate they meet at least one of the following criteria:
 - They have verified impaired waters and are facing existing or possible Total Maximum Daily Loads (TMDL) requirements (under state and federal laws); or
 - They have verified harm to human health or harm to the environment that warrants additional consumer fertilizer requirements; or
 - That they will improve water quality or prevent future impacts of consumer fertilizers on the environment.
4. Support of public education regarding fertilizer use based on six best practices for lawn care elements developed by the Institute of Food and Agricultural Sciences (IFAS), as well as a set of supplemental landscape management tips. The six best practices are:
 - Choose a fertilizer designed for lawns.
 - Apply fertilizer when grass is actively growing.
 - Apply fertilizer to the lawn and keep off other surfaces and away from water.
 - Mow lawn at highest lawnmower setting.
 - Use water wisely through proper irrigation.
 - Spot treatments for pests and weed problems.
5. Continued support of ongoing research projects on consumer fertilizer management, and support for future research on “real-world” assessment of fertilizer nutrient leaching and runoff from existing urban residential lawns, assessment of nutrient leaching and runoff from ground cover, native landscapes, and other alternative landscapes, and a mass balance or “box model” study to assess the ultimate sinks, fate and chemical transformations of N and P in turf, soil, and shallow groundwater systems. The Task Force recommended that the Legislature direct the DACS Best Management Practices Research Extension Coordinating Committee (BRECC) to address the research recommendations from the Task Force.
6. A dedicated source of funding be provided for education and training initiatives that address the appropriate application of consumer fertilizers, and that the Florida Legislature authorize DACS to increase the tonnage fee on the sale of nitrogen and phosphorus up to \$1.00 per ton, with the recommendation that DACS will determine the exact amount of the increase, not to exceed \$1.00/ton, by conducting a rule making initiative with affected interests. The Task Force recommends that an amount of money equal to or greater than the percent of sales of consumer fertilizers be used for funding consumer fertilizer training and education initiatives.

Following a unanimous adoption of the draft recommendations at the January 11, 2008 meeting, the Task Force authorized DACS to transmit this Final Report and adjourned. Information on the meetings, deliberations, public comments submitted, and support documents can be found at <http://consensus.fsu.edu/Fertilizer-Task-Force/index.html>.

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

FLORIDA CONSUMER FERTILIZER TASK FORCE FINAL REPORT TO THE 2008 FLORIDA LEGISLATURE JANUARY 15, 2008



I Introduction

The Task Force was created by the Florida Legislature in 2007 to review and provide recommendations on the state's policies and programs addressing consumer fertilizers. It was composed of 13 individuals representing a range of stakeholder interests and elected Andy Rackley to serve as its chair and Casey Fitzgerald to serve as its vice chair. The Florida Conflict Resolution Consortium served as the Task Force facilitators. The Task Force adopted a consensus process that required a super majority of 75% support of its members for any substantive decisions on findings and recommendations.

It met for six meetings between September, 2007 and January, 2008 and received briefings and public comments at each meeting. It also established an online website to provide information on the Task Force's work and an additional opportunity for online public comment.



Public Comment at the December 17, 2007 Task Force Meeting, Apopka

II Task Force Mission, Guiding Principles and Vision of Success

A. Task Force Mission and Guiding Principles

At its organizational meeting, the Task Force reviewed its legislative charge then discussed, drafted, refined and later adopted a mission statement and a set of guiding principles.

Mission Statement

The mission of the Florida Consumer Fertilizer Task Force is to develop and deliver a package of consensus recommendations to the Florida Legislature designed to ensure that the education and regulation for the proper use of consumer fertilizers is informed by best available science and is uniform subject to variations necessary to meet local state and federal water quality standards. The Task Force will recommend statewide guidelines for management strategies (nonagricultural fertilizer use rates, formulations, and application), based on the best available science as well as model ordinances for municipalities and counties.

Guiding Principles

1. The overall purpose of the Florida Consumer Fertilizer Task Force is to develop recommendations for submittal to the Florida Legislature regarding the education and use, and management strategies and regulation of consumer fertilizers.
2. The Florida Consumer Fertilizer Task Force shall operate under clear, concise, consistent, and fair procedural protocols.
3. The Florida Consumer Fertilizer Task Force shall strive to achieve consensus on substantive recommendations made to the Florida Legislature.
4. The Florida Consumer Fertilizer Task Force shall serve as an accessible liaison between the Task Force and their representative constituency groups to meet their mission.

B. Task Force Vision of Success

Members discussed what was at stake for Florida's communities in terms of potentially huge future commitments of funding to enhance water quality in our lakes, rivers and bays, growing conflicts between upstream and downstream communities because of the failure to establish consistent science based standards; and a growing enforcement/compliance problem and the continued degradation of Florida's water quality.

Members subsequently offered a shared vision of a new, more successful approach for the use and application of consumer fertilizers in Florida in the next decade. The members vision was of great improvements in the water quality of the state's rivers, lakes and bays as a result of solving the problem of runoff and leaching of nitrogen and phosphorus from consumer fertilizer using a system of regulation that: is simple and straightforward; relies on an ongoing commitment to the use of sound science to inform best management practices; uses fact-based consumer and professional education to dramatically improve compliance; and relies on a public-private partnership that is committed to implementing a solution that is practical and sustainable.

III FINDINGS AND CONSIDERATIONS

A. LEGISLATIVE FINDINGS

The following legislative findings were included in the charge to the Task Force:

1. There is a need for better training and education regarding the proper use of consumer fertilizers.
2. There should exist a mechanism to help local governments promote and encourage the proper use of fertilizers, thereby eliminating or minimizing the potential for environmental impacts.
3. Local government regulation of fertilizer uses for nonagricultural applications should be based on sound science, including water quality, agronomics, and horticulture.
4. There is a need for education regarding the use of consumer fertilizers.
5. There is a need for improved standards regarding nonagricultural fertilizer use and application.
6. While the constituents in fertilizer are naturally occurring in the environment, the improper use of fertilizer can be one of many contributors to non point source pollution.
7. The state's local governments are potentially subject to regulatory enforcement action by state or federal entities as a result of non point source pollution caused by storm water runoff.

B. TASK FORCE CONSIDERATIONS

In the course of evaluating options and developing recommendations, based on direction from the Florida Legislature, the following considerations were identified by the Task Force and informed their discussions and development of recommendations:

- Use the best available consensus-based data and science,
- Assess nutrient enrichment and surface waters due to fertilizer,
- Reduce water quality impacts associated with fertilizer—non-point source pollution,
- Comply with state and federal water quality standards, and
- Ensure uniformity while accounting for geographic diversity and variations.



IV TASK FORCE RECOMMENDATIONS

Nutrient reduction in Phosphorous & Nitrogen requires a comprehensive, multi-faceted approach, and consumer fertilizer is an important component of this effort. The Task Force expects that through implementation of the DACS rule and registration process and the Task Force's recommendations, there will be a significant reduction in phosphorous and nitrogen applied in the urban environment that will contribute to decreasing environmental impacts and non-point pollution sources.

In addressing its legislative charge, the Task Force was briefed on and developed recommendations regarding the following six topics:

- Statewide Guidelines for Use (use rates, formulations, and applications)—Developing Improved Standards
- Local Government Regulations Based on Sound Science—Model Ordinances
- Local Government Mechanisms to Promote and Encourage Proper Use
- Training and Education on Proper Use
- Research and Studies Needs and Recommendations
- Funding

A. RECOMMENDATIONS FOR STATEWIDE GUIDELINES AND IMPROVED STANDARDS FOR USE

1. The Task Force expressed support for the current DACS labeling requirements for urban turf fertilizers rule, Rule 5E-1.003(2), on the basis that the rule was based on the best available science at the time of promulgation, and recommends that the Rule serve as the statewide guideline for formulations, with the understanding that the rule will be reviewed and revised based on updated science by December 31, 2012. Research is currently being conducted by IFAS to quantify nutrient leaching in lawn grasses. This DEP funded turf nutrient leaching research will provide the best available science under which to review the DACS Rule's labeling requirements for urban turf fertilizers, including the prescribed application rates of nitrogen and phosphorus for sustaining turf grass and minimizing or preventing leaching.
2. The Task force addressed consumer fertilizer applications through expansion of the Limited Commercial Landscape Maintenance (LCLM) certification and additional authority to require all commercial applicators to have an appropriate certification. The Task Force supports and recommends that a combined training program be established, modifying the existing LCLM certification to include fertilizer BMP's and adding BMP's and updates to continuing education requirements. The Legislature should modify Chapter 482 to authorize DACS to require limited certification for those who only apply fertilizer commercially (a new "Limited Commercial Fertilizer Applicator Certification" LCFAC).

The Task Force recognizes that several thousand people already have attended and passed the Green Industry BMP Training Program developed by DEP and administered by UF IFAS. Therefore, we recommend that anyone who has been or will be certified through this program not be required to obtain additional LCFAC training. Such individuals can submit their certification to DACS to obtain the LCFAC certification.

The minimum training program for the application of fertilizers to turfgrasses or landscape plants for hire shall consist of training in the following subjects, except that applicants already holding any valid FDACS pesticide license may, but shall not be required to, attend the final pesticide law and licensing, IPM, and safety module. The course shall be designed, approved and made available by DEP and UF/IFAS and include:

- Overview of nonpoint source pollution, laws and effects on water quality; effects on business, economy, and quality of life; BMPs as both good business and environmental benefit.
- Florida turfgrass species and characteristics including fertilizer requirements and the effects of landscape design, mowing, irrigation, shade, wear, pest, disease, cold and heat stresses on fertilizer materials, amounts and timing, and conversely, the effects of fertilization on these cultural aspects in addition to direct effects on water quality, including nutrient pollution, erosion and sedimentation, and water usage rates.
- Irrigation systems and the effects of irrigation on volatilization, leaching, runoff, excessive withdrawal and water quality issues. Effects of over/under irrigation on plants and fertilizer needs. Diagnoses of irrigation vs. fertilizer problems. Importance of proper repair to maintain distribution uniformity to prevent spot leaching/runoff of fertilizers resulting in more fertilizer use and more pollution.
- Florida landscape plants and characteristics including fertilizer requirements and the effects of landscape design, pruning, irrigation, shade, pest, disease, cold and heat stresses on fertilizer materials, amounts and timing, and conversely, the effects of fertilization on these cultural aspects in addition to direct effects on water quality.
- Pesticide (including fertilizer pesticide mixtures) and licensing law, IPM, and safety.

An individual who is only applying fertilizer may apply for the new “LCFAC” specific to application of fertilizers.

The test material will be the same for the revised LCLM certifications and the new “LCFAC”, and will include at a minimum ensuring knowledge of the DEP developed Green Industries BMP’s training material. At a minimum the training would include the DEP material.

It is anticipated that the existing Green Industry BMP training network, including DEP, IFAS, industry and private training providers would conduct the training necessary for obtaining the Green Industry BMP certification. For those who only want to obtain the LCFAC, IFAS would coordinate the training opportunities and would administer the test. For those who pass the test, they would apply to DACS for their LCFAC, submit their fee, and DACS would issue the certification. DACS, DEP, and local governments would provide enforcement mechanisms within their existing structure and programs.

Businesses, whether composed of one employee or many, that only apply consumer fertilizer must have at least one individual who has the new “LCFAC”, and this individual is responsible to ensure that each employee who applies fertilizer has received appropriate annual training according to the curriculum, training, and records keeping provisions as established by DACS.

3. Use rates are addressed through the DACS urban turf labeling Rule and BMP’s, and the model ordinance approach as well as through the training and education, and funding recommendations.
4. The Task Force has developed a model ordinance for use by municipalities and counties concerning the use of nonagricultural fertilizer for use by local governments who choose to adopt an ordinance

as directed by the Legislature. The Task Force recommends that Local Government can adopt additional or more stringent provisions to the model ordinance provided the local government can demonstrate they meet at least one of the following criteria:

- They have verified impaired waters and are facing existing or possible TMDL requirements (under state and federal laws); or
- They have verified harm to human health or harm to the environment that warrants additional consumer fertilizer requirements; or
- That they will improve water quality or prevent future impacts of consumer fertilizers on the environment.

B. RECOMMENDATIONS FOR LOCAL GOVERNMENT REGULATIONS BASED ON SOUND SCIENCE—MODEL ORDINANCE

The Model Fertilizer Use ordinance drafted and agreed to by the Task Force is another tool to reduce sources of nutrients coming from urban landscapes and to reduce the impact of nutrients on Florida’s surface and ground waters. *(See the Model Local Ordinance in Appendix #4)*

C. LOCAL GOVERNMENT MECHANISMS TO PROMOTE AND ENCOURAGE PROPER USE

The Task Force addressed this issue through the development of the model ordinance with the ordinance’s provisions serving as BMP’s for the proper use of consumer fertilizer. In addition proper use is addressed as a result of the training, education, and certification for fertilizer applicators through the expansion of the Limited Commercial Landscape Maintenance (LCLM) certification and proposed new “Commercial Fertilizer Applicator Certification” (LCFAC), and the seeking of additional legislative authority requiring all commercial applicators to either have or be under the direct supervision of an individual having the DACS administered certification. The Task Force recommendations regarding educational messages is another vehicle to assist local governments in promoting and encouraging proper use of consumer fertilizers.



A fertilizer spreader that features a deflector shield to deflect fertilizer granules away from all impervious surfaces, fertilizer-free zones and water bodies, including wetlands, is a provision of the model ordinance developed and recommended by the Task Force.

D. TRAINING AND EDUCATION ON PROPER USE

1. Best Practices for Lawn Care

The Task Force endorses the six (6) best practices for lawn care elements proposal as the starting point, that may be amended as well as revised for Florida specific conditions. They are as follows:

- Choose a fertilizer designed for lawns.
- Apply fertilizer when grass is actively growing.
- Apply fertilizer to the lawn and keep off other surfaces and away from water.
- Mow lawn at highest lawnmower setting.
- Use water wisely through proper irrigation.
- Spot treatments for pests and weed problems.

2. Additional Consumer Tips/Messages

In addition the Task Force supports the following additional consumer tips and messages to be used as part of any communications initiative:

- Provide the reasons why consumer should follow BMP's and labeling requirements.
- Deviating from label directions can contribute to pollution of area surface waters.
- If you choose to fertilize, fertilize properly. However, it is not necessary to fertilize in all cases.
- Avoid water bodies in applying fertilizer.
- Look for low to no phosphorous in consumer fertilizers.
- "Right plants in the right place".
- Use of native plants in the landscape may decrease the need for consumer fertilizer.
- "A properly maintained landscape provides a good environmental filter for urban runoff."
- Choose a fertilizer designed for lawns and landscape shrubs and follow the label application directions. Use an appropriate fertilizer – this is one that will have some of the N in slow-release form*, no or very low P, K for stress tolerance, and other nutrients as needed
- Apply fertilizer when grass is actively growing. Apply fertilizer to the lawn and keep off other surfaces and away from water. Do not apply fertilizer to dormant turfgrass.
- Mow lawn at highest lawnmower setting. Be specific about mowing height based on the type of turfgrass. (e.g. St. Augustinegrass and bahiagrass -- 3.5 to 4 inches; Centipedegrass and zoysiagrass - - 1.5 to 2 inches; Dwarf St. Augustinegrass cultivars -- 2-2.5 inches).
- Use water wisely through proper irrigation. Be specific about the time to water.
- Be specific about fertilizer type and application time.
- Spot treatments for pests and weed problems. Non-chemical application practices can be encouraged also.
- Don't bag your clippings.
- Irrigate fertilizer in with ONLY about ¼" of water. More water may cause leaching or runoff while no water may cause volatilization or burn.
- Avoid fertilizing immediately prior to a significant rain since excessive water may cause fertilizer to run off the landscape.
- Do not leave fertilizer on walks, driveways, patios or other impervious surfaces. Sweep these granules onto the lawn.
- Keep a buffer zone around lakes, streams and rivers and be sure that fertilizer granules are not getting directly into water.

3. UF-IFAS Proposed Consumer Fertilizer Communications Campaign

The Task Force reviewed an IFAS proposal for a specific communications campaign with associated costs as a possible approach for providing consumers with information on best practices. (*See, Appendix 6 for the UF-IFAS proposed communication campaign.*)



E. RESEARCH AND STUDIES NEEDS AND RECOMMENDATIONS

The Task Force recognizes that there are ongoing research projects and recommends the continued support of these efforts. The Task Force identified information gaps and the Future Research Needs (Science) Subcommittee recommended, and the Task Force supports the following research topics which should be factored into defining future research priorities:

1. *In situ* or “real-world” assessment of fertilizer nutrient leaching and runoff from existing urban residential lawns.
2. Experimental and *in situ* assessment of nutrient leaching and runoff from ground cover, native landscapes, and other alternative landscapes. These landscapes should be assessed for nutrient loss in conditions of fertilization augmentation and where no fertilization is necessary.
3. A detailed mass balance or “box model” study to assess the ultimate sinks, fate and chemical transformations of N and P in turf, soil, and shallow groundwater systems.
4. Consumer behavior studies to assess residential urban turf irrigation rates, actual fertilizer application rates, and other factors with respect to understanding urban turf management by consumers. Analyses may be nested in a residential subdivision approach to attain trends within communities in addition to statewide trends between communities across the state.
5. Assessment of the fate of urea-nitrogen in fertilizer leachate and runoff in urban turf landscapes. Although urea-N is widely known to rapidly transform into inorganic nitrogen in the soil environment, whereby it can be rapidly assimilated by turf, what proportion of the urea-N may actually be lost in leachate and runoff needs to be researched.

Possible examples of research projects that IFAS has identified and shared with the Task Force are found in Appendix #5.

The Task Force recommends that the Legislature direct the DACS Best Management Practices Research Extension Coordinating Committee (BRECC) to address the recommendations from the Task Force in Section E, Research and Studies Needs and Recommendations, including a review of the existing research.

F. FUNDING RECOMMENDATIONS

The Task Force recommends that a dedicated source of funding be provided for education and training initiatives regarding enhancing the appropriate application of consumer fertilizers in accordance with the DACS labeling requirements for urban turf fertilizers rule, Rule 5E-1.003(2), and all of the provisions in these recommendations. The Task Force recommends that all users of non-agricultural fertilizers comply with the provisions contained within the recommendations, including but not limited to: homeowners, golf courses, commercial properties, and multi-family and condominium properties.

The Task Force recommends that the Florida Legislature authorize DACS to increase the tonnage fee on the sale of nitrogen and phosphorus up to \$1.00 per ton. DACS will determine the exact amount of the increase, not to exceed \$1.00/ton, by conducting a rule making initiative with affected interests. The Task Force recommends that an amount of money equal to or greater than the percent of sales of consumer fertilizers be used for funding consumer fertilizer training and education initiatives. The Task Force recommends that the tonnage fee increase for the sale of Nitrogen and Phosphorus (N & P) apply to all fertilizer sales in recognition of the fact that, to date, little funding has been spent on consumer fertilizer education and training. DACS will work with partners such as IFAS, non-profits and industry associations in developing and conducting training and education initiatives.

APPENDIX # 1

TASK FORCE MEMBERSHIP AND STAFF

Task Force Members	Representation
Scott Dudley	Florida League of Cities, Inc. ¹
Senator David Aronberg	Florida Senate
Peter John Barile	Environmental Community
Jerry Brooks	Department of Environmental Protection
Richard Budell	DACS Office of Agricultural Water Policy
Casey Fitzgerald (Vice-chair)	Water Management Districts
Richard Martinez	National Fertilizer Industry
Representative Bryan Nelson	Florida House of Representatives
Ron Olson	Florida-Based Fertilizer Industry
Andy Rackley (Chair)	Department of Agriculture and Consumer Services
Jerry Sartain	UF Institute for Food and Agricultural Sciences
Karen Taylor	Registered Landscape Architect
Commissioner Jon Thaxton	Florida Association of Counties

Jeff Blair and Robert Jones
Task Force Facilitators
FSU Florida Conflict Resolution Consortium



¹ Mayor Jay Arend served as the Florida League Cities Representative until January 8, 2008.

APPENDIX # 2

LEGISLATIVE CHARGE—SECTION 576.092, FLORIDA STATUTES

Section 10. Section 576.092, Florida Statutes, is created to read:

576.092 Consumer Fertilizer Task Force.--

- (1) The Legislature finds that:
 - (a) There is a need for better training and education regarding the proper use of consumer fertilizers.
 - (b) There should exist a mechanism to help local governments promote and encourage the proper use of fertilizers, thereby eliminating or minimizing the potential for environmental impacts.
 - (c) Local government regulation of fertilizer uses for nonagricultural applications should be based on sound science, including water quality, agronomics, and horticulture.
 - (d) There is a need for education regarding the use of consumer fertilizers.
 - (e) There is a need for improved standards regarding nonagricultural fertilizer use and application.
 - (f) While the constituents in fertilizer are naturally occurring in the environment, the improper use of fertilizer can be one of many contributors to nonpoint source pollution.
 - (g) The state's local governments are potentially subject to regulatory enforcement action by state or federal entities as a result of nonpoint source pollution caused by stormwater runoff.

- (2)(a) There is hereby created the Consumer Fertilizer Task Force within the Department of Agriculture and Consumer Services for the purposes of:
 - 1 Assessing existing data and information regarding nutrient enrichment and surface waters due to fertilizer, assessing management strategies for reducing water quality impacts associated with fertilizer, and identifying additional research needs.
 - 2 Developing statewide guidelines governing nonagricultural fertilizer use rates, formulations, and applications with attention to the geographic regions identified in Rule 5E-1.003, Florida Administrative Code.
 - 3 Taking public input and testimony concerning the issues in this section.
 - 4 Recommending methods to ensure local ordinances are based on best available data and science and to achieve uniformity among local government ordinances where possible, unless local ordinance variations are necessary to meet mandated state and federal water quality standards.
 - 5 Developing model ordinances for municipalities and counties concerning the use of nonagricultural fertilizer.

- (b)1. The task force shall consist of 13 members who are technically qualified by training, education,

or experience in water quality, horticultural, or agronomic science, and who shall be appointed as follows: three members appointed by the President of the Senate, one of whom shall be a representative from the Department of Environmental Protection, one of whom shall be a representative of the environmental community, and one of whom shall be a member of the Senate; three members appointed by the Speaker of the House of Representatives, one of whom shall be a representative from a water management district, one of whom shall be a representative of the University of Florida's Institute for Food and Agricultural Sciences, and one of whom shall be a member of the House of Representatives; five members appointed by the Commissioner of Agriculture, one of whom shall be a representative from the Department of Agriculture and Consumer Services, one of whom shall be a representative from the Office of Agricultural Water Policy, one of whom shall be a representative from the national fertilizer industry, one of whom shall be a representative from the Florida-based fertilizer industry, and one of whom shall be a registered landscape architect; one member appointed by the Florida League of Cities, Inc.; and one member appointed by the Florida Association of Counties.

2. Members shall choose a chair and vice chair from the membership of the task force.

(3) Staffing for the task force shall be provided by the Department of Agriculture and Consumer Services.

(4) The task force shall review and evaluate the issues identified in paragraph (2)(a) and take public testimony. A report of the recommendations and findings of the task force, including recommendations for statutory changes, if any, shall be submitted to the President of the Senate and the Speaker of the House of Representatives by January 15, 2008, and the task force shall be abolished upon the transmittal of the report.

Section 12. This act shall take effect July 1, 2007.

APPENDIX # 3

RULE 5E-1.003(2) LABELING REQUIREMENTS FOR URBAN TURF FERTILIZERS

(2) FERTILIZER LABEL REQUIREMENTS FOR URBAN TURF, SPORTS TURF OR LAWNS.

(a) Definitions

1. "Urban Turf" or "Lawns" means non agricultural land planted in closely mowed, managed grasses except golf courses, parks and athletic fields.

2. "Sports Turf" means non agricultural land planted exclusively for golf courses, parks and athletic fields.

3. "No Phosphate Fertilizer" means fertilizer products with phosphate levels below 0.5% intended for established urban turf or lawns.

4. "Low Phosphate Fertilizer" means fertilizer products intended for new or established urban turf or lawns, with phosphate levels equal to or above 0.5% or as provided in paragraph (2)(b).

5. "Starter Fertilizer" means a fertilizer formulated for a one-time application at planting or near that time to encourage root growth and enhance the initial establishment.

6. "Established Urban Turf" means urban turf older than 12 months.

7. "New Urban Turf" means urban turf established less than 12 months.

(b) Fertilizer products labeled for use on sports turf, urban turf or lawns shall be no phosphate or low phosphate and have labeling that meets the restrictions set forth in this rule for the application of nitrogen.

1. No phosphate fertilizers shall not contain more than 0.5% of available phosphate expressed as P₂O₅. The "grade" shall indicate a zero guarantee.

2. Fertilizers labeled as Low phosphate shall have use directions that do not exceed an application rate of 0.25 lbs P₂O₅/1000ft² per application and not to exceed 0.50 lbs P₂O₅/1000ft² per year. Label use directions may be included that allow higher rates if an annual soil sample representative for the site shows the need for a higher application rate.

3. Fertilizers labeled as, or formulated for use as, starter fertilizer shall have use directions that do not exceed an application rate of 1.0 lb of P₂O₅/1,000 ft² and that subsequent applications shall be made with products meeting the definition of Low or No Phosphate fertilizers. The term "Starter Fertilizer" shall be part of the brand name.

4. Fertilizers labeled as urban turf, sports turf, or lawn fertilizer shall have directions for use for nitrogen that:

a. Are consistent with the recommendations in the following table:

Fertilization Guidelines for Established Turfgrass Lawns in Three Regions of Florida

Species	Nitrogen recommendations (lbs N / 1000 ft ² / year)*		
	North	Central	South
Bahia grass	2-3	2-4	2-4
Bermuda grass	3-5	4-6	5-7
Centipede grass	1-2	2-3	2-3
St. Augustine grass	2-4	2-5	4-6
Zoysiagrass	3-5	3-6	4-6

North Florida is north of Ocala. Central Florida is defined as south of Ocala to a line extending from Vero Beach to Tampa. South Florida includes the remaining southern portion of the state.

b. Nitrogen shall not be applied at an application rate greater than 0.7 lbs of readily available nitrogen per 1000 ft² at any one time based on the soluble fraction of formulated fertilizer, with no more than 1 lb total N per 1000 ft² to be applied at any one time and not to exceed the annual nitrogen recommendations in the Fertilization Guidelines for Established Turfgrass Lawns in Three Regions of Florida, set forth herein. Use directions for nitrogen may be included that allow higher rates if an annual tissue sample representative of the site shows the need for a higher application rate.

5. The following language shall appear conspicuously on bags of fertilizer sold at retail: "Do not apply near water, storm drains or drainage ditches. Do not apply if heavy rain is expected. Apply this product only to your lawn/garden, and sweep any product that lands on the driveway, sidewalk, or street, back onto your lawn/garden."

(c) Specialty fertilizers labeled for urban turf or lawns shall have directions for use that include:

1. Application rates for phosphorous shall not exceed 0.25 lbs. P₂O₅/1000 ft² per application and not exceed 0.50 lbs. P₂O₅/1000 ft² per year. Label use directions may be included that allow higher rates if an annual soil sample representative for the site shows the need for a higher application rate.

2. Application rates for nitrogen shall not exceed 0.7 lbs of readily available nitrogen per 1000 ft² at any one time based on the soluble fraction of formulated fertilizer, with no more than 1 lb total N per 1000 ft² to be applied at any one time and not to exceed the annual nitrogen recommendations in the Fertilization Guidelines for Established Turfgrass Lawns in Three Regions of Florida. Use directions for nitrogen may be included that allow higher rates if an annual tissue sample representative of the site shows the need for a higher application rate.

3. Rates shall be expressed in units of weight or volume per unit of area coverage (where application rates are given in volume, the label shall provide sufficient information to calculate the application rates by weight).

4. Rates shall be expressed per 1000 square feet.

5. Maximum coverage area per container or bag shall be displayed prominently on the front of the container or bag. (i.e. This product covers 5000 square feet; This bag feeds 4000 square feet).

(d) Fertilizers labeled for sports turf at golf courses, parks and athletic fields shall:

1. Have directions for use not to exceed rates recommended in the document titled SL191 “Recommendations for N, P, K and Mg for Golf Course and Athletic Field Fertilization Based on Mehlich I Extractant”, dated March 2007, which is hereby adopted and incorporated by reference into this rule. Copies may be obtained from the Soil and Water Science Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611 or the following website: <http://edis.ifas.ufl.edu/SS404>.

2. Have directions for use in accordance with the recommendations in “BMP’s for the Enhancement of Environmental Quality on Florida Golf Courses”, published by the Florida Department of Environmental Protection, dated January 2007. Copies may be downloaded from <http://www.dep.state.fl.us/water/nonpoint/pubs.htm>.

(e) Fertilizers other than specialty fertilizers labeled for urban turf shall:

1. Have directions for use not to exceed rates recommended in the document titled Best Management Practices for Protection of Water Resources in Florida, June 2002, Florida Green Industries., which is hereby adopted and incorporated by reference into this rule. Copies may be obtained from http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/BMP_Book.

(f) Existing Stock – Licensees are permitted to sell or distribute products that do not meet the label requirements of the rule for one and one-half years after the effective date of the rule. Products at the retail level on or after the effective date of the rule are permitted to be offered for sale.

APPENDIX # 4

“MODEL ORDINANCE” RECOMMENDATION

FLORIDA FRIENDLY FERTILIZER USE ON URBAN LANDSCAPES MODEL ORDINANCE

INTRODUCTION

The attached model Fertilizer Use ordinance is another tool to reduce sources of nutrients coming from urban landscapes to reduce the impact of nutrients on Florida’s surface and ground waters. However, restricting fertilizer use by itself will not eliminate the impacts of nutrients from urban landscapes. Local governments are advised they should also review their existing Land Development Regulations to assure they promote “Low Impact Design”, which minimizes clearing of natural vegetation and the compaction of urban soils. A Model Springs Protection Code is being developed by DCA, DEP, and other stakeholders that will include specific Land Development Regulation recommendations that promote Low Impact Design. This Model Code will be available in 2008.

Additionally, landscape design is a major determinant in the amount of fertilizer and irrigation that is needed to maintain healthy urban landscapes and minimize adverse impacts on water resources. A model Landscape Ordinance entitled “Guidelines for Model Ordinance Language for Protection of Water Quality and Quantity Using Florida Friendly Lawns and Landscapes” was developed by a group of agencies, industries, and interest groups over a two year period. It is fundamentally an adaptation of earlier water conservation ordinances revised to include water quality protections for compliance with TMDL and NPDES requirements. The language focuses on continuing education of lawn care and landscape professionals, proper planning and supervision during development and construction, and the use of best management practices, including the Florida Yards and Neighborhoods Program. This model ordinance may be downloaded from:

[HTTP://WWW.DEP.STATE.FL.US/WATER/NONPOINT/PUBS.HTM#MODEL%20ORDINANCES.](http://www.dep.state.fl.us/water/nonpoint/pubs.htm#MODEL%20ORDINANCES)

Finally, the 2004 Florida Legislature directed Florida’s water management districts to work with interested parties to develop landscape irrigation and Florida-Friendly design standards for new construction (section 373.228, F.S.). Local governments are to use the standards and guidelines when developing landscape irrigation and Florida-Friendly ordinances. The Committee on Landscape Irrigation and Florida-Friendly Design Standards convened and developed the standards. They are published in a booklet called Landscape Irrigation and Florida Friendly Design Standards (December 2006). This document can be downloaded from:

[HTTP://WWW.DEP.STATE.FL.US/WATER/WATERPOLICY/LAND_IRR.HTM](http://www.dep.state.fl.us/water/waterpolicy/land_irr.htm)

1. FINDINGS

As a result of impairment to (MUNICIPALITY / COUNTY)'S surface waters caused by excessive nutrients under the Florida Impaired Waters Rule, or, as a result of increasing levels of nitrogen in the surface and/or ground water within the aquifers or springs within the boundaries of (municipality/county) the governing body of (municipality / county) has determined that the use of fertilizers on lands within (municipality / county) creates a risk to contributing to adverse effects on surface and/or ground water. Accordingly, the governing board of (municipality/county) finds that additional measures than are otherwise required by the most recent edition of the "*Florida Green Industries Best Management Practices for Protection of Water Resources in Florida, June 2002,*" may be required by this ordinance.

2. PURPOSE AND INTENT

This Ordinance regulates the proper use of Fertilizers by any Applicator; requires proper training of Commercial and Institutional Fertilizer Applicators; establishes training and licensing requirements; establishes a Prohibited and Restricted Application Period; specifies allowable fertilizer application rates and methods, fertilizer-free zones, low maintenance zones, and exemptions. The Ordinance requires the use of Best Management Practices which provide specific management guidelines to minimize negative secondary and cumulative environmental effects associated with the misuse of Fertilizers. These secondary and cumulative effects have been observed in and on (MUNICIPALITY / COUNTY)'s natural and constructed stormwater and drainage conveyances, rivers, creeks, canals, springs, lakes, estuaries and other water bodies. *[Guidance: as appropriate]* Collectively, these water bodies are an asset critical to the environmental, recreational, cultural and economic well-being of (MUNICIPALITY / COUNTY) residents and the health of the public. Overgrowth of algae and vegetation hinder the effectiveness of flood attenuation provided by natural and constructed stormwater and drainage conveyances. Regulation of nutrients, including both phosphorus and nitrogen contained in Fertilizer, will help improve and maintain water and habitat quality.

3. DEFINITIONS

For this Article, the following terms shall have the meanings set forth in this section unless the context clearly indicates otherwise.

"Administrator" means the (MUNICIPALITY / COUNTY) Administrator, or an administrative official of (MUNICIPALITY / COUNTY) government designated by the City/County Administrator to administer and enforce the provisions of this Article.

"Application" or "Apply" means the actual physical deposit of Fertilizer to Turf or Landscape Plants.

"Applicator" means any Person who applies Fertilizer on Turf and/or Landscape Plants in (MUNICIPALITY / COUNTY).

"Board or Governing Board" means the Board of City/County Commissioners of (MUNICIPALITY / COUNTY), Florida.

“Best Management Practices” means turf and landscape practices or combination of practices based on research, field-testing, and expert review, determined to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality, conserving water supplies and protecting natural resources.

“Code Enforcement Officer, Official, or Inspector” means any designated employee or agent of (MUNICIPALITY / COUNTY) whose duty it is to enforce codes and ordinances enacted by (MUNICIPALITY / COUNTY).

“Commercial Fertilizer Applicator” means any Person who applies Fertilizer on Turf and/or Landscape Plants in (MUNICIPALITY / COUNTY) in exchange for money, goods, services or other valuable consideration.

“Fertilize,” “Fertilizing,” or “Fertilization” means the act of applying Fertilizer to Turf, specialized Turf, or Landscape Plant.

“Fertilizer” means any substance or mixture of substances, except pesticide/fertilizer mixtures such as “weed and feed” products, that contains one or more recognized plant nutrients and promotes plant growth, or controls soil acidity or alkalinity, or provides other soil enrichment, or provides other corrective measures to the soil. [**Guidance:** Regulation of pest control businesses and applicators, and of pesticide use, is preempted to the Florida Department of Agriculture and Consumer Services (FDACS) by Chapters 482.242, and 487.051 (2), F.S. and suspected pesticide misuse should be reported to FDACS. Weed and feed products are registered pesticides. The Limited Commercial Landscape Maintenance Certification Program does not allow landscape maintenance workers to make any kind of pesticide applications (including weed control and/or weed and feed products) to any turf areas. Per 482.165(3) F.S., a civil penalty for unlicensed application of pesticides, including weed and feed products, may not be less than \$500 or more than \$5,000 for each offense.]

“Guaranteed Analysis” means the percentage of plant nutrients or measures of neutralizing capability claimed to be present in a Fertilizer.

“Institutional Applicator” means any Person, other than a non-commercial or commercial Applicator (unless such definitions also apply under the circumstances), that applies Fertilizer for the purpose of maintaining Turf and/or Landscape Plants. Institutional Applicators shall include, but shall not be limited to, owners and managers of public lands, schools, parks, religious institutions, utilities, industrial or business sites and any residential properties maintained in condominium and/or common ownership.

“Landscape Plant” means any native or exotic tree, shrub, or groundcover (excluding Turf).

“Low Maintenance Zone” means an area a minimum of six (6) feet wide adjacent to water courses which is planted and managed in order to minimize the need for fertilization, watering, mowing, etc.

“Pasture” means land used for livestock grazing that is managed to provide feed value.

“Person” means any natural Person, business, corporation, limited liability company, partnership, limited partnership, association, club, organization, and/or any group of people acting as an organized entity.

“Prohibited Application Period” means the time period during which a Flood Watch or Warning, or a Tropical Storm Watch or Warning, or a Hurricane Watch or Warning, or a 3-day Cone of Uncertainty is in effect for any portion of (CITY/COUNTY), issued by the National Weather Service, or if heavy rain is expected.

“(MUNICIPALITY / COUNTY) Approved Best Management Practices Training Program” means a training program approved by the (MUNICIPALITY / COUNTY) Administrator that includes at a minimum, the most current version of the Florida Department of Environmental Protection’s “Florida Green Industries Best Management Practices for Protection of Water Resources in Florida, June 2002,” as revised and any more stringent requirements set forth in this Article.

“Slow Release,” “Controlled Release,” “Timed Release,” “Slowly Available,” or “Water Insoluble Nitrogen” means nitrogen in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant longer than a reference rapid or quick release product.

“Turf,” “Sod,” or “Lawn” means a piece of grass-covered soil held together by the roots of the grass.

4. APPLICABILITY

This Ordinance shall be applicable to and shall regulate any and all Applicators of Fertilizer and areas of application of Fertilizer within the area of (MUNICIPALITY / COUNTY), unless such Applicator is specifically exempted by the terms of this Ordinance from the regulatory provisions of this Ordinance. This Ordinance shall be prospective only, and shall not impair any existing contracts. If addressed by the legislature, local government can adopt additional or more stringent provisions to the model ordinance provided the local government can demonstrate they meet at least one of the following criteria:

- They have verified impaired waters and are facing existing or possible TMDL requirements (under state and federal laws); or
- They have verified harm to human health or harm to the environment that warrants additional consumer fertilizer requirements; or
- That they will improve water quality or prevent future impacts of consumer fertilizers on the environment.

[Guidance: Florida Statutes 125.568(3), 166.048(3), and 373.185(3) provided that a deed restriction or covenant entered after October 1, 2001, or local government ordinance, may not prohibit any property owner from implementing Xeriscape or Florida-friendly landscape practices on his or her land. Any restrictions created after this date are void.]

5. TIMING OF FERTILIZER APPLICATION

No Applicator shall apply Fertilizers containing nitrogen and/or phosphorus to Turf and/or Landscape Plants during the Prohibited Application Period.

6. FERTILIZER CONTENT AND APPLICATION RATES

(a) Fertilizers Applied to Turf and/or Landscape Plants within (MUNICIPALITY / COUNTY) shall be formulated and applied in accordance with requirements and directions provided by Rule 5E-1.003(2), Florida Administrative Code, *Labeling Requirements For Urban Turf Fertilizers*.

(b) Fertilizers shall be applied to Turf and/or Landscape Plants at the lowest rate necessary. Nitrogen shall not be applied at an application rate greater than 0.7 lbs of readily available nitrogen per 1000 ft² at any one time based on the soluble fraction of formulated fertilizer, with no more than 1 lb total N per 1000 ft² to be applied at any one time and not to exceed the annual nitrogen recommendations in the Fertilization Guidelines for Established Turfgrass Lawns in Three Regions of Florida, set forth below:

Fertilization Guidelines for Established Turfgrass Lawns in Three Regions of Florida

Nitrogen recommendations

(lbs N / 1000 ft² / year)*

Species	North	Central	South
Bahia grass	2-3	2-4	2-4
Bermuda grass	3-5	4-6	5-7
Centipede grass	1-2	2-3	2-3
St. Augustine grass	2-4	2-5	4-6
Zoysiagrass	3-5	3-6	4-6

*North Florida is north of Ocala. Central Florida is defined as south of Ocala to a line extending from Vero Beach to Tampa. South Florida includes the remaining southern portion of the state.

(c) For new turf or landscape plants that are being installed or established, a one-time use of starter fertilizer as described in Rule 5E-1.003 shall be allowed at an application rate not to exceed 1.0 lb of P₂O₅/1,000 ft².

(d) No phosphorus Fertilizer shall be Applied to existing Turf and/or Landscape Plants within (MUNICIPALITY / COUNTY) at application rates which exceed 0.25 lbs. P₂O₅/1,000 ft² per application nor exceed 0.50 lbs. P₂O₅/1,000 ft² per year,

(e) Nitrogen or phosphorus Fertilizer may not be applied to turf or landscape plants except as provided above unless *a soil or tissue deficiency has been verified by an approved test.* [**Additional Guidance:** *Soil and tissue tests for phosphorus are normally done by UF/IFAS or another accredited laboratory. FDEP has sponsored research (ca. 2007-2008) to compare several retail home test kits to IFAS extension lab results for a wide variety of Florida soils. This may allow more convenient testing by homeowners, although enforcement may be more difficult without written test results.*]

7. IMPERVIOUS SURFACES

Fertilizer shall not be applied, spilled, or otherwise deposited on any impervious surfaces. Any Fertilizer applied, spilled, or deposited, either intentionally or accidentally, on any impervious surface shall be immediately and completely removed to the greatest extent practicable. Fertilizer released on an impervious surface must be immediately contained and either legally applied to Turf or any other legal site, or returned to the original or other appropriate container. In no case shall Fertilizer be washed, swept, or blown off impervious surfaces into stormwater drains, ditches, conveyances, or water bodies.

8. FERTILIZER FREE ZONES

Fertilizer shall not be applied within ten (10) feet, or three (3) feet if a deflector shield or drop spreader is used, of any pond, stream, water course, lake, canal, or wetland as defined by the Florida Department of Environmental Protection (Chapter 62-340, Florida Administrative Code) or from the top of a seawall. If more stringent (MUNICIPALITY / COUNTY) Code regulations apply, this provision does not relieve the requirement to adhere to the more stringent regulations. Newly planted Turf and/or Landscape Plants may be fertilized in this Zone only for the first sixty (60) day establishment period.

9. LOW MAINTENANCE ZONES

A voluntary six (6) foot low maintenance zone is strongly recommended, but not mandated, from any pond, stream, water course, lake, wetland or from the top of a seawall. A swale/berm system is recommended for installation at the landward edge of this low maintenance zone to capture and filter runoff. If more stringent (MUNICIPALITY / COUNTY) Code regulations apply, this provision does not relieve the requirement to adhere to the more stringent regulations. No mowed or cut vegetative material shall be deposited or left remaining in this zone or deposited in the water. Care should be taken to prevent the over-spray of aquatic weed products in this zone. [**Guidance:** *Care must be taken to ensure erosion of the surface soil does not occur. Excessive erosion may be a greater pollution hazard than occasional proper applications of fertilizer.*]

10. MODE OF APPLICATION

Spreader deflector shields are required when Fertilizing via rotary spreaders. Deflectors must be positioned such that Fertilizer granules are deflected away from all impervious surfaces, fertilizer-free zones and water bodies, including wetlands.

11. MANAGEMENT OF GRASS CLIPPINGS AND VEGETATIVE MATTER

In no case shall grass clippings, vegetative material, and/or vegetative debris either intentionally or accidentally, be washed, swept, or blown off into stormwater drains, ditches, conveyances, water bodies, wetlands, or sidewalks or roadways.

12. EXEMPTIONS

The provisions set forth above in this Ordinance shall not apply to:

(a) bona fide farm operations as defined in the Florida Right to Farm Act, Section 823.14, Florida Statutes, provided that fertilizers are applied in accordance with the appropriate Best Management Practices Manual adopted by the Florida Department of Agriculture and Consumer Services, Office of Agricultural Water Policy for the crop in question.

(b) other properties not subject to or covered under the Florida Right to Farm Act that have Pastures used for grazing livestock provided that fertilizers are applied in accordance with the appropriate Best Management Practices Manual adopted by the Florida Department of Agriculture and Consumer Services, Office of Agricultural Water Policy for the crop in question.

13. TRAINING

(a) All Applicators of Fertilizer within the unincorporated area of (MUNICIPALITY / COUNTY), other than private homeowners on their own property, shall abide by and successfully complete an appropriate DACS Chapter 482, F.S. certification (i.e., the new limited commercial fertilizer applicator certification), providing training and continuing education requirements in minimizing nitrogen leaching and phosphorus runoff from fertilizer applications.

(b) Non-commercial applicators not otherwise required to be certified are required to follow the recommendations of the University of Florida IFAS *Florida Yards and Neighborhoods* program when applying fertilizers.

(c) A local government may establish a certification/education program for the application of these consumer fertilizers indicating the completion of an education program for anyone not otherwise certified by existing programs consistent with the ordinance and the DACS urban turf rule.

14. LICENSING OF COMMERCIAL APPLICATORS

(a) All Commercial Applicators of Fertilizer within the unincorporated area of (MUNICIPALITY / COUNTY), shall abide by and successfully complete an appropriate DACS Chapter 482, F.S. certification (i.e., the new limited commercial fertilizer applicator certification), providing training and continuing education requirements in minimizing nitrogen leaching and phosphorus runoff from fertilizer applications prior to obtaining a (MUNICIPALITY / COUNTY) Local Business Tax Certificate for any category of occupation which may apply any Fertilizer to Turf and/or Landscape Plants. Commercial Fertilizer Applicators shall provide proof of completion of an approved training program to the (MUNICIPALITY / COUNTY) Tax Collector's office within 180 days of the effective date of this ordinance.

(b) All businesses applying fertilizer to Turf and/or Landscape Plants (including but not limited to residential lawns, golf courses, commercial properties, and multi-family and condominium properties) must ensure that at least one employee has an appropriate DACS Chapter 482, F. S. certification (i.e., the limited commercial fertilizer applicator certification), prior to the business owner obtaining a Local Business Tax Certificate. Owners for any category of occupation which may apply any fertilizer to Turf and/or Landscape Plants shall provide proof of certification to the (Municipality/ County) Tax Collector's Office.

(c) Non-commercial applicators not otherwise required to be certified are required to follow the recommendations of the University of Florida IFAS *Florida Yards and Neighborhoods* program when applying fertilizers.

APPENDIX # 5

UF-IFAS CONSUMER FERTILIZER RESEARCH PROJECTS

1. Quantify run-off and develop models of fertilizer runoff from buffer zone turfgrass and landscape areas
2. Impact of withholding fertilizer for various periods during active growth of turfgrasses
3. Effect of zero nitrogen and phosphorous on turfgrass and landscape plants
4. Determine the impact of construction related soil compaction and use of subsoil on landscape fertilizer runoff
5. Compare the nutrient loss (leaching) from turfgrasses and landscape plants/ground covers in newly planted and established landscapes
6. Determine the relationship of landscape fertilization to the occurrence of red tide
7. Developing a seasonal fertilization program for turfgrass and landscape plants that minimize nutrient leaching and runoff
8. Develop model landscape designs for communities and developments that minimizes non-point source runoff
9. Evaluate the reduction of fertilizer for lawns and landscapes by use of reclaimed water
10. Conduct research surveys and focus groups to determine consumer fertilizer practices in Florida and to document changes in consumer fertilization practices following Florida Friendly Landscape education

APPENDIX #6

UF-IFAS PROPOSED COMMUNICATIONS CAMPAIGN

Phase #1 – \$250,000

The UF/IFAS Center for Landscape Conservation and Ecology Information Office could provide the following in support of the Fertilizer Task Force recommendations from May 2008 to May 2009.

- \$150,000 Underwriting *Gardening in a Minute* radio program for statewide coverage
 - Provides Florida-friendly information in a short, fun format
 - Corresponding website providing much more extensive scientifically-based information

- \$20,000 Radio PSAs and Press Releases
 - 20 region-specific PSAs
 - PSA development: researching topic, writing script, recording show, editing show, uploading to website, placement with radio stations
 - Press releases to secure media publicity
 - Press release development: researching, writing, editing, disseminating

- \$30,000: Creating an editable website with an external web development firm
 - Coordinating development of an interactive and informative site
 - Content development

- \$50,000 Fertilizer Tips Fact Sheets
 - 10 Fact Sheets
 - Fact sheet development: researching topic, editing photos, writing content, formatting for the web and print, uploading to the website, printing and distribution
 - Cross promotion and placement with
 - Water Management Districts
 - Utility Companies
 - Regional Planning Boards
 - Extension Offices

Phase #2 – \$500,000

The UF/IFAS Center for Landscape Conservation and Ecology Information Office could provide the following in support of the Fertilizer Task Force recommendations from May 2008 to October 2009.

- \$250,000 Phase #1

- \$125,000 Print advertisements
- advertisements
 - Print advertising campaign in major metro markets
 - Print advertisement development: region-specific content, design and layout, print-ready, placement, formatting and uploading to website

- \$125,000 Video PSAs
- 25 videos
 - Video development: researching topic, scrip writing, videotaping, editing, graphics, credits, music and uploading materials to website

Phase #3 – \$1,000,000

The UF/IFAS Center for Landscape Conservation and Ecology Information Office could provide the following in support of the Fertilizer Task Force recommendations from May 2008 to December 2009.

- \$500,000 Phase #2

- \$500,000 Public and Media Relations Campaign with an external public relations agency
- Coordination with external public relations agency specializing in this area. The PR agency would provide
 - Media relations
 - Media buying and placement (print and video) for Cable and network TV, commercial radio, newspapers and magazines
 - Cross promotions among industries
 - News feature story and photo development

APPENDIX # 7
CONSUMER FERTILIZER TASK FORCE
SUBCOMMITTEE ON FUTURE RESEARCH

(Appointed October 11, 2007)

The Florida Consumer Fertilizer Task Force's mission is to "develop and deliver a package of consensus recommendations to the Florida Legislature designed to ensure that the education and regulation for the proper use of consumer fertilizers is **informed by best available science** and is uniform, subject to variations necessary to meet local state and federal water quality standards. The Task Force will recommend statewide guidelines for management strategies (e.g. nonagricultural fertilizer use rates, formulations, and application), **based on the best available science** as well as model ordinances for municipalities and counties."

The Subcommittee on Future Research, Chaired by Task Force member Dr. Peter Barile, will bring back to the Task Force for consideration at its November 14 meeting, a draft set of recommendations regarding needed future research that will:

- Clarify what is the existing best available scientific research related to the Task Force's charge and mission; and
- Clarify what relevant research is currently being conducted and/or is funded to be conducted in the near future; and
- Clarify, and if possible, prioritize what additional scientific research may be needed in the future and what level of resources would be required to conduct that research and provide the results to inform future policy decisions regarding the regulation and education for the proper use of consumer fertilizers.

Dr. Peter Barile, Task Force member will chair and convene the Subcommittee composed of expert advisors from DEP, DOH, WMDs, IFAS and Industry including:

- Eric Livingston, Bureau Chief, Watershed Management, Division of Water Resource Management, DEP, eric.livingston@dep.state.fl.us, 850-245 8430
- Steve Kelley, Scotts, steven.kelly@scotts.com 407-889-4200
- Dr. Ed Lowe, SJWMD, Director, Division of Environmental Services, elowe@sjrwmd.com, 386-329-4582
- Eberhard Roeder, DOH, (Eberhard_Roeder@doh.state.fl.us)
- Dr. Laurie Trenholm, IFAS; <mailto:Treletr@ufl.edu>; Associate Professor, Environmental Horticulture University of Florida P.O. Box 110675 Gainesville, FL 32611 352-392-1831, ext. 374 352-538-0788 mobile 352-392-1413 fax

APPENDIX # 8


TASK FORCE PROCESS OVERVIEW AND MEETING SCHEDULE

The Florida Consumer Fertilizer Task Force (Task Force) unanimously adopted consensus procedures for developing and reaching agreement on its recommendations to the Legislature. The procedure provided, “General consensus is a participatory process whereby, on matters of substance, the members strive for agreements which all of the members can accept, support, live with or agree not to oppose. In instances where, after vigorously exploring possible ways to enhance the members’ support for the final decision on a recommendation, and the Task Force finds that 100% acceptance or support is not achievable, final decisions will require at least 75% favorable vote of all members present and voting. This super majority decision rule underscores the importance of actively developing consensus throughout the process on substantive issues with the participation of all members and which all can live with. In order to conduct formal business, the Task Force will require a quorum of its appointed members. Seven (7) of Thirteen (13) members must be present to constitute a quorum.

The Task Force process included multiple opportunities for public input and comments. Each meeting of the Task Force featured opportunities for public comments.



The Task Force website included an on-line public comment page and periodically forwarded these comments to the Task Force members and posted the public comments received. For a review of these public comments, see: <http://consensus.fsu.edu/Fertilizer-Task Force/survey.html>



Pubic Comments

Please submit your comments on one or more of the areas covered by the task force.

Instructions

- Click the submit button at the bottom of this page when you have completed your responses.
- Please keep your comments concise. Comments are limited to 3000 characters (about two typed pages). If you feel you need to say more, then send us an e-mail to one of the address on the main page for this process.
- Do not use the return key or we will receive your responses before you have finished.

1. Statewide Guidelines for Use (use rates, formulations, and applications)
Developing Improved Standards

Florida Department of Agriculture and Consumer Services

Consumer Fertilizer Task Force

Main Page	Meetings	Resources	Workplan	Legislation and Rules	Surveys & Comments	Science Subcommittee
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Meeting VI
January 10 - 11, 2008
Tallahassee, FL

Note: This is a change from an earlier meeting location.

Homewood Suites By Hilton
2987 Apalachee Parkway
Tallahassee, FL
850-488-3731

The Task Force summaries, presentations and briefings, resource documents and studies, and public comments were posted regularly on the Task Force's website.

In both the 5th and 6th meetings time was set aside on the Task Force meeting agendas to review the many public comments received and determine if these contained new ideas, suggestions or concerns that the Task Force should consider as it refined its recommendations.

The Task Force met six times between September, 2006 and January, 2007 (*see meeting schedule below*). The Task Force meeting summaries can be found at: <http://consensus.fsu.edu/Fertilizer-Task-Force/index.html>

TASK FORCE MEETING SCHEDULE

DATES	ACTIVITIES
July 2007	Appointment of Florida Consumer Fertilizer Task Force
September 6, 2007	Task Force Meeting #1—Organizational: mission, visioning, project scoping, and identification of issues <i>Sarasota</i>
October 11, 2007	Task Force Meeting #2 <i>Gainesville</i>
November 2, 2007	Task Force Meeting #3 <i>West Palm Beach</i>
November 14, 2007	Task Force Meeting #4—Initial Draft Recommendations Public Workshop—Round One (Following Task Force Meeting) <i>Tallahassee</i>
December 17, 2007	Task Force Meeting #5—Review of Public Comments Public Workshop—Round Two (Following Task Force Meeting) <i>Apopka</i>
January 10 - 11, 2008	Task Force Meeting #6—Adoption of Final Package of Recommendations <i>Tallahassee</i>
January 15, 2008	Delivery of Final Recommendations to DACS and Florida Legislature

Basin Board Education Committee Report

The BBEC meeting was held at the Tampa Service Office on March 11, 2008.

- Mac Carraway, from the Manasota Basin Board, was reelected vice chair of the BBEC.
- Chair Maritza Rovira-Forino introduced new Water Conservation Hotel And Motel Program (Water CHAMP) Coordinator Robin Grantham, reminding BBEC members that CHAMP has 357 participants, representing 39 percent of all the hotels and 57 percent of all available rooms in the District.
- Melissa Roe unveiled the District's new Program for Restaurant Outreach (Water PRO). The program, which is an extension of Water CHAMP, will promote water conservation in restaurants. A brochure has been created to promote the program and includes information about table tents, coasters, placemats and other materials promoting water conservation. The CHAMP coordinator will promote the program through the Florida Restaurant and Lodging Association as well as through direct mail and site visits to association members and independent restaurants. Materials will be free to restaurants and available for ordering online.
- Beth Putnam reviewed some of the highlights of the District's education efforts in FY2007:
 - The FY2007 media messaging campaign promoted Florida-friendly landscaping and resulted in 115 million impressions, representing a 10 percent increase over FY2006. In addition, there was a 274 percent increase in public education materials ordered during the two months of the concentrated campaign (March/April).
 - Water CHAMP participation increased by 37 percent in FY2007, potentially promoting wise use of water to 8 million visitors. In addition, 13 CHAMP properties have been certified as DEP Green Lodges, with 49 others in the application process.
 - Nearly 3 million people were educated through 280 water resources education projects ranging from school and community education grants, to field trips and workshops, to exhibits and special events.
 - Landscape education added a regional builder/developer specialist, resulting in more partnerships with builder associations. Homeowner association outreach was responsible for large gains in water conservation, with one townhouse community saving more than 2.4 million gallons of water in one year. Staff also worked with the green industry and the University of Florida to create a certification program for Florida-friendly maintenance professionals.
 - Spanish materials created in FY2007 include a web page, print ads, the District's first Spanish TV ad and several publications. A committee of Spanish-speaking internal staff provides guidance and review.
 - Watershed awareness weeks in both the Peace River and the Hillsborough River watersheds raised awareness and gained commitment for watershed protection among the public and local governments.
 - With online ordering and increased promotion of materials, more than 1 million brochures, newsletters and other publications were distributed.
 - During FY2007, 70 teachers attended groundwater institutes in Crystal River, Sarasota and Tampa Bay for in-depth, site-specific information about local water

resources. A similar institute was held for the Peace River basin teachers in FY2006 in Arcadia.

- Focus groups and surveys provide information that helps staff design education programs that are more effective in achieving behavior change. Several examples of focus groups, surveys and other methods of research were among the significant achievements of FY2007. The results of this research will guide future program development.
- Dorian Morgan demonstrated how focus groups are conducted and presented examples of what information has been gathered from focus groups and how that information has been used to help design survey questions, advertisements and programs.
- Michael Molligan gave an update on the District's Drought Communications Plan, including media messages that promote Florida-friendly landscaping, efficient irrigation and water conservation. The spring campaign also includes Reduce Your Use billboards and print ads. Spanish versions of the print, radio and TV messages are also part of the campaign.
- The Communications Department received 39 FY2009 cooperative funding applications for educational projects requesting \$2.4 million.
- The BBEC discussed a water conservation license plate. After considering the costs and complexity of the process, the BBEC agreed that the chair should send a letter to DEP requesting they consider spearheading the efforts of sponsoring a license plate. Revenues would be used for water conservation education. The chair will seek concurrence at the next Governing Board meeting.
- The BBEC's next meeting will be Thursday, July 10, 2008, at the Tampa Service Office.

Withlacoochee River Watershed Initiative (H066)
Project Work Plan Timeline

Task Name	Duration	Scheduled Start Date	Scheduled Finish Date	Actual Start Date	Actual Finish Date	Comments	Complete
River Model		12/04/06	12/08/09	11/01/06		1	
1 Digital Topographic Information		12/04/06	08/19/08	03/26/07		1	
1.1 LIDAR Geodatabase Setup - River	179 days	03/26/07	11/29/07	03/26/07		7	
1.1.1 Geodatabase of LIDAR Segments 2-9	15 wks	03/26/07	07/06/07	03/26/07	05/25/07		X
1.1.2 LIDAR Data Preparation for Hydrographic Survey	1 wk	08/22/07	08/28/07	03/26/07	07/20/07		X
1.1.3 Add LIDAR for Segment 1	3 wks	08/01/07	08/21/07	03/26/07		7	
1.1.4 Additional LIDAR for Segment 10,11	4 wks	11/02/07	11/29/07	03/26/07		7	
1.2 Hydrographic Survey	387 days	12/04/06	05/27/08	11/01/06		1	
1.2.1 Hydrographic Survey Pilot Projects	53 days	12/04/06	02/14/07	11/01/06	03/20/07	1	X
Air Survey (Floral City Pool)	3 wks	12/04/06	12/22/06	11/01/06	12/12/06	1, 2, 6	X
Hydrographic Survey Pilot-Ground-based	6 wks	01/04/07	02/14/07	11/07/06	01/09/07	1	X
1.2.2 Field Data Collection	175 days	08/29/07	04/29/08	01/24/07			
Detailed Hydrographic Survey Plan Upper River - Segments 1-4	5 wks	09/03/07	10/05/07	03/26/07	08/30/07		X
Ground Survey Upper River	4 mons	10/17/07	02/05/08	05/03/07		4, 8	
Detailed Hydrographic Survey Plan Middle River - Segments 5-7	3 wks	08/29/07	09/18/07	03/26/07	08/30/07		X
Ground Survey Middle River (Includes High Water)	2 mons	09/19/07	11/13/07	02/20/08		8	
Detailed Hydrographic Survey Plan Lower River Segments 8-11	6 wks	08/29/07	10/09/07	03/26/07	08/30/07		X
Ground Survey Lower River	3 mons	02/06/08	04/29/08	02/20/08			
1.2.3 Final Process / Quality Control Hydrographic Surveys	140 days	11/14/07	05/27/08			8	
Hydrographic Survey Geodatabase Segments 1-4	1 mon	02/06/08	03/04/08			8	
Hydrographic Survey Geodatabase Segments 5-7	1 mon	11/14/07	12/11/07			8	
Hydrographic Survey Geodatabase Segments 8-11	1 mon	04/30/08	05/27/08				
1.3 Digital Terrain Model Development	300 days	06/27/07	08/19/08	03/26/07			
1.3.1 Develop Regional Planning Digital Elevation Model	2 mons	06/27/07	08/21/07	03/26/07	05/25/07	8	X
1.3.2 Integrate Hydrographic Transects-Add Breaklines	140 days	12/12/07	06/24/08				
Integrate Hydrographic Ground Survey Segments 1-4	1 mon	03/05/08	04/01/08				
Integrate Hydrographic Ground Survey Segments 5-7	1 mon	12/12/07	01/08/08			8	
Integrate Hydrographic Ground Survey Segments 8-11	1 mon	05/28/08	06/24/08				
1.3.3 Develop Integrated Digital Terrain Model Database	4 wks	06/25/08	07/22/08				
1.3.4 Digital Terrain Model Review	4 wks	07/23/08	08/19/08				
2 Watershed Evaluations - River		03/26/07	08/19/08	03/26/07			
2.1a Watershed Evaluation - Upper River Segment 1	117 days	07/30/07	01/08/08	03/26/07		1, 8	
Data Collection & Integration	60 days	07/30/07	10/19/07	03/26/07		1, 8	
Existing plans, reports, other data	2 mons	07/30/07	09/21/07	03/26/07	09/15/07	1	X
Build Integrated Geodatabase	2 mons	07/30/07	09/21/07	03/26/07		8	
Field Reconnaissance	40 days	08/27/07	10/19/07	03/26/07	09/22/07	1	X
Identify Inflow Points	1 mon	08/27/07	09/21/07	03/26/07	09/15/07	1	X
Locate Hydrographic Cross Sections	1 mon	08/27/07	09/21/07	03/26/07	09/22/07	1	X
Survey Elements Requirements Plan	1 mon	09/24/07	10/19/07	03/26/07	09/22/07	1	X
Link-Node Diagram (River)	1 mon	12/12/07	01/08/08			3, 4	
2.1b Watershed Evaluation - Upper River Segments 2-4	227 days	03/26/07	02/05/08	03/26/07		8	
Data Collection & Integration	100 days	03/26/07	08/10/07	03/26/07		8	
Existing plans, reports, other data	2 mons	03/26/07	05/18/07	03/26/07	09/15/07		X
Build Integrated Geodatabase	5 mons	03/26/07	08/10/07	03/26/07		8	
Field Reconnaissance	45 days	05/29/07	07/30/07	05/29/07	09/22/07		X
Identify Inflow Points	1 mon	05/29/07	06/25/07	05/29/07	09/15/07		X
Locate Hydrographic Cross Sections	1 mon	05/29/07	06/25/07	05/29/07	09/22/07		X
Survey Elements Requirements Plan	5 wks	06/26/07	07/30/07	05/29/07	09/22/07		X
Link-Node Diagram (River)	1 mon	01/09/08	02/05/08			3, 4	
2.2 Watershed Evaluation - Mid-River Segments 5-7	147 days	03/26/07	10/16/07	03/26/07		8	

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Task Name	Duration	Scheduled Start Date	Scheduled Finish Date	Actual Start Date	Actual Finish Date	Comments	Complete
Data Collection & Integration	100 days	03/26/07	08/10/07	03/26/07	03/26/07	8	
Existing plans, reports, other data	3 mons	04/23/07	07/13/07	03/26/07	09/15/07	1	X
Build Integrated Geodatabase	5 mons	03/26/07	08/10/07	03/26/07	03/26/07	8	X
Field Reconnaissance	20 days	07/16/07	08/10/07	05/29/07	09/22/07		X
Identify Inflow Points	1 mon	07/16/07	08/10/07	05/29/07	09/15/07		X
Locate Hydrographic Cross Sections	1 mon	07/16/07	08/10/07	05/29/07	09/22/07		X
Survey Elements Requirements Plan	1 mon	07/16/07	08/10/07	05/29/07	09/22/07		X
Link-Node Diagram (River)	1 mon	09/19/07	10/16/07			3, 4	
2.3 Watershed Evaluation - Lower River Segments 8-11	287 days	03/26/07	04/29/08	03/26/07			
Data Collection & Integration	100 days	03/26/07	08/10/07	03/26/07	03/26/07	8	
Existing plans, reports, other data	2 mons	05/21/07	07/13/07	03/26/07	09/15/07		X
Build Integrated Geodatabase	5 mons	03/26/07	08/10/07	03/26/07	03/26/07	8	
Field Reconnaissance	25 days	07/02/07	08/03/07	05/29/07	09/22/07		X
Identify Inflow Points	1 mon	07/02/07	07/27/07	05/29/07	09/15/07		X
Locate Hydrographic Cross Sections	1 mon	07/02/07	07/27/07	05/29/07	09/22/07		X
Survey Elements Requirements Plan	1 mon	07/09/07	08/03/07	05/29/07	09/22/07		X
Link-Node Diagram (River)	1 mon	04/02/08	04/29/08			3, 4	
2.4 Watershed Evaluation for Off-Schedule Planning Units	85 days	08/22/07	12/18/07	10/05/07		3, 8	
Identify Modeling Level of Detail Needed: Upper River - Group 1	15 wks	09/05/07	12/18/07	02/11/08		3, 4, 8	
Develop Project Recommendations Group 1	1 mon	11/21/07	12/18/07			3, 4, 8	
District Re-Schedule Planning Unit Projects Group 1	1 mon	11/21/07	12/18/07			3, 4, 8	
Identify Modeling Level of Detail Needed: Middle River - Group 2	3 mons	08/22/07	11/13/07	02/11/08		3, 4, 8	
Develop Project Recommendations Group 2	2 mons	09/19/07	11/13/07			3, 4, 8	
District Re-Schedule Planning Unit Projects Group 2	2 mons	09/19/07	11/13/07			3, 4, 8	
Identify Modeling Level of Detail Needed: Lower River - Group 3	5 wks	10/31/07	12/04/07	02/11/08		3, 4, 8	
Develop Project Recommendations Group 3	5 wks	10/31/07	12/04/07			3, 4, 8	
District Re-Schedule Planning Unit Projects Group 3	5 wks	10/31/07	12/04/07			3, 4, 8	
Identify Modeling Level of Detail: Peripheral Karst - Group 4	5 wks	10/31/07	12/04/07	02/11/08		3, 4, 8	
Develop Project Recommendations Group 4	5 wks	10/31/07	12/04/07			3, 4, 8	
District Re-Schedule Planning Unit Projects Group 4	5 wks	10/31/07	12/04/07			3, 4, 8	
2.5 Gage Data and Verification Time Series	367 days	03/26/07	08/19/08	03/26/07			
Identify Sites and Configure in Geodatabase	5 mons	03/26/07	08/10/07	03/26/07		4	
Update Timeseries for Periods of Record	1 mon	07/23/08	08/19/08				
3 Watershed Management Plan - River							
3.1. Model Development	240 days	10/17/07	12/08/09			8	
3.1.1 Assemble Model Geodatabase and Inputs - Segment 1	2 mons	01/09/08	03/04/08			8	
Integrate Planning Unit Group 1	1 mon	06/04/08	07/01/08				
3.1.2 Assemble Model Geodatabase and Inputs - Segment 2	2 mons	03/05/08	04/29/08				
3.1.3 Assemble Model Geodatabase and Inputs - Segment 3	1 mon	04/30/08	05/27/08				
3.1.4 Assemble Model Geodatabase and Inputs - Segment 4	1 mon	05/28/08	06/24/08				
Integrate Remaining Planning Unit Group 1	1 mon	06/25/08	07/22/08				
3.1.5 Assemble Model Geodatabase and Inputs - Segment 5	3 mons	10/17/07	01/08/08			8	
3.1.6 Assemble Model Geodatabase and Inputs - Segment 6	2 mons	12/12/07	02/05/08			8	
3.1.7 Assemble Model Geodatabase and Inputs - Segment 7	1 mon	02/06/08	03/04/08			8	
Integrate Planning Unit Group 2	1 mon	04/30/08	05/27/08				
3.1.8 Assemble Model Geodatabase and Inputs - Segment 8	1 mon	04/30/08	05/27/08				
3.1.9 Assemble Model Geodatabase and Inputs - Segment 9	1 mon	05/28/08	06/24/08				
3.1.10 Assemble Model Geodatabase and Inputs - Segment 10	1 mon	06/25/08	07/22/08				
3.1.11 Assemble Model Geodatabase and Inputs - Segment 11	1 mon	07/23/08	08/19/08				
Integrate Planning Unit Group 3	1 mon	08/20/08	09/16/08				

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Project Work Plan Timeline

Task Name	Duration	Scheduled Start Date	Scheduled Finish Date	Actual Start Date	Actual Finish Date	Comments	Complete
3.2 Model Verification	140 days	07/23/08	02/03/09				
3.2.1 Verification of Model	6 mons	07/23/08	01/06/09				
3.2.2 Model Development and Verification Report	1 mon	01/07/09	02/03/09				
3.3 Model Simulations	130 days	02/04/09	08/04/09				
3.3.1 Scenario Descriptions	2 mons	02/04/09	03/31/09				
3.3.2 Model Results with Various Scenarios	3 mons	04/01/09	06/23/09				
3.3.3 Integrate Results in Geodatabase	6 wks	06/24/09	08/04/09				
3.4 Best Management Plan Alternatives Analysis	6 mons	06/24/09	12/08/09				
Contributing Watershed Models	190 days	11/14/07	08/05/08			8	
4.0 Planning Units - Watershed Management Plans	190 days	11/14/07	08/05/08			8	
Planning Unit Group 1	120 days	12/19/07	06/03/08			8	
Upper River Planning Units - WMPs or Inflow Estimates	6 mons	12/19/07	06/03/08			8	
Planning Unit Group 2	120 days	11/14/07	04/29/08			8	
Middle River Planning Units - WMP's or Inflow Estimates	6 mons	11/14/07	04/29/08			8	
Planning Unit Group 3	80 days	04/16/08	08/05/08				
Lower River Planning Units - WMPs or Inflow Estimates	4 mons	04/16/08	08/05/08				
Planning Unit Group 4	60 days	04/16/08	07/08/08				
Peripheral Karst Planning Units - WMPs or Inflow Estimates	3 mons	04/16/08	07/08/08				

- Comment 1: Task was started earlier than scheduled.
- Comment 2: Bathymetric LIDAR was flown earlier than scheduled, since the aircraft was stationed nearby.
- Comment 3: Start date will be adjusted as information is collected and evaluated during ongoing work tasks.
- Comment 4: Finish date will be adjusted as information is collected and evaluated during ongoing work tasks.
- Comment 5: Task feasibility is under evaluation.
- Comment 6: Air Survey (Bathymetric LIDAR) deemed non-feasible.
- Comment 7: Finish date will be adjusted due to availability of LIDAR data.
- Comment 8: Start and/or finish date will be adjusted due to District staff focus on FEMA model reviews.

