BOARD MANAGEMENT AND PLANNING COMMITTEE AGENDA
MONDAY, JANUARY 09, 2006
1:30 PM - 4:00 PM
COUNTY COMMISSION CHAMBERS

REVISED 01/09/06

1. **PURCHASE OF STOCK PARCEL FOR CR 951/ESTERO PKWY EXTENSION**
   PRESENTER: Don DeBerry, Department of Transportation
   TIME REQUIRED: 15 Minutes

2. **LEE COUNTY STORMWATER SERVICES FUNDING OPTIONS STUDY**
   PRESENTER: Roland Ottolini, Director, Natural Resources
   TIME REQUIRED: 15 Minutes

3. **LAKE OKEECHOBEE UPDATE AND LEGISLATIVE AMENDMENTS**
   PRESENTER: Wayne Daltry, Smart Growth
   TIME REQUIRED: 5 Minutes

BOARD COMMENTS/DISCUSSION

ADJOURN

Immediately following the conclusion of the M & P Meeting there will be a special presentation regarding "Pine Island Concurrency" – Time Required: 40 minutes.

FOR MORE INFORMATION ABOUT THIS AGENDA CONTACT THE PUBLIC RESOURCES OFFICE - (239) 332-2737

The Management & Planning Meeting is carried live on the following cable channels:

Comcast Cable Channel 11
Time Warner Cable Channel 16

MANAGEMENT & PLANNING COMMITTEE
AGENDA REQUEST FORM
COMMISSION DISTRICT - #5

PRESENTED BY: Don DeBerry / Department of Transportation **REQUESTED BY: DOT**

TITLE OF ITEM FOR THE AGENDA: Purchase of Stock Parcel for CR 951/Estero Parkway Extension

1. DESCRIPTION AND OBJECTIVE OF THE ISSUE : Stock Development currently has approval to develop a 17+/- acre parcel as part of the larger Grandezza/Grand Oaks development, just north of Corkscrew Road and west of the FPL power line. The community, known as Trevi, would consist of 118 units, 46 single family and 72 multi-family. At the time Stock received their zoning approval, the County was just beginning its CR 951 Extension PD&E Study. Stock was told that their property was a likely location for the future CR 951 Extension, but because we had not yet done the study, we couldn't say definitively that the road would go there. After 3 years and evaluation of numerous alternatives, the PD&E consultant has identified a preferred alignment that does in fact go through the Trevi parcel, and that alignment was approved by the BOCC on August 2, 2005 and reaffirmed on October 25, 2005. The Trevi parcel aligns with another 65-acre parcel recently purchased by the County south of Corkscrew Road. The draft Environmental Impact Statement, which reflects the preferred alternative as well as a no-build alternative, was recently submitted to FDOT for review and comment. In the interim, staff has opened negotiations with Stock Development on the possible voluntary sale of the Trevi parcel prior to the commeneement of development. We are also looking to acquire the east-west right-of-way reserved in the old Timberland & Tiburon DRI for the Estero Parkway Extension (an additional 9.5 acres). Although the Board approved a Resolution of Necessity on November 1st to allow for future condemnation of the property if neeessary, Stock has been cooperative regarding a voluntary sale. Due to finaneing issues, Stock is anxious to know now whether the County intends to purchase the land.

2. PROPOSED POLICY, PROCEDURE OR PLAN OF ACTION
Discuss whether to proceed with voluntary purchase of Stock property as right-of-way for future CR 951 Extension and/or future Estero Parkway Extension.

3. OPTIONS (List advantages/Disadvantages of Each Option Listed)

A. Proceed with voluntary purchase of Stock property.

Advantages:

- Seeures portion of right-of-way for future CR 951 Extension on alignment identified in PD&E Study.
- Matches parcel already purchased to the south, and the two property owners on alignment continuing north to Alico Road have indicated willingness to work with County.
- Even if County doesn't pursue CR 951 Extension, land is needed for future Estero Parkway Extension.
- Property will be significantly more expensive to acquire once developed, so purchase now would save the County money and help maintain the feasibility of the CR 951 Extension.

Disadvantages:

- Land purchase would occur before receiving final concurrence on alignment from Federal Highway Administration.
- Decision will be unpopular with residents still hoping alignment will change.
- Funds not yet budgeted for 951 right-of-way – will require loan (see below).

B. End negotiations for voluntary purchase now and let Stock proceed with development plans.

Advantages:

- No expenditure of currently-unbudgeted funds, no loan required.
- Would avoid any appearance of pre-determining alignment (although preferred alignment already determined).

Disadvantages:

- If property develops with 118 units, future purchase would cost significantly more as well as directly impacting 118 homes, likely making the CR 951 Extension infeasible.

4. FINANCIAL IMPACTS/FUNDING SOURCE

Option A: Staff proposes to utilize the new General Fund Road Projects Revolving Loan Program to initially fund the purchase of the Stock property. This was highlighted as an outstanding future need and a potential candidate project when the Board established the loan program. Repayment would be from future allocation of road impact fees, unless the County moved forward with bond financing options for the CR 951 Extension.

Option B: No initial cost (other than funds already expended for appraisals), but future acquisition of the developed property could be as much as $60-$80 million.

5. STAFF RECOMMENDATIONS, AND JUSTIFICATION FOR RECOMMENDATIONS

Staff recommends approval of the purchase.

6. Mandated: Y N (x) **BY WHAT AUTHORITY?**

DEPARTMENT DIRECTOR SIGNATURE	COUNTY MANAGER SIGNATURE	MEETING DATE	TIME REQUIRED
12/24/05		January 9, 2005	15 Min.

MANAGEMENT & PLANNING COMMITTEE
AGENDA REQUEST FORM
COMMISSION DISTRICT #

PRESENTED BY: **Roland Ottolini**
Director, Natural Resources Division

REQUESTED BY:

TITLE OF ITEM FOR THE AGENDA: LEE COUNTY STORMWATER SERVICES FUNDING OPTIONS STUDY

1. DESCRIPTION AND OBJECTIVE OF THE ISSUE

To provide an analysis of the stormwater management issues facing Lee County such as flood protection, water conservation, hydrological restoration and water pollution reduction and review available funding mechanisms for implementation.

At the forefront, the frequent outbreaks of blue-green algae, red algae and possibly red tide and the degradation of estuarine resources such as seagrasses, oysters, blue-crab, scallops ands fisheries can be associated with excessive nutrients and altered salinity regimes contributed by inadequate stormwater management activities. The Caloosahatchee Basin Initiative and compliance with TMDLs for verified impaired waterbodies will require substantial local government commitment to implement pollution reduction activities including the construction of filter marshes and other Best Management Practices to offset our share of the contribution to total pollutant loading. This effort would be Lee County's major capital response to all the various environmental and water quality initiatives that date back as far as the Corps EIS and up to the Governor's declared plan to restore the estuaries, and our own commitment on the issues we raised with the Corps and District at the August 15-16 consultation.

In addition, the need for enhanced flood protection has been identified by field observations, chronic requests for action and public survey response.

Federal, state and other shareholder partnerships and available grant funds will be pursued where applicable.

According to the Stormwater Services Funding Options study prepared by URS Corporation, the total funding needed annually over the next decade is $27 million. $21 million is currently available for funding annually. An annual $6 million funding shortage remains.

2. PROPOSE POLICY, PROCEDURE OR PLAN OF ACTION

Initiate operational and capital programs to meet established goals, develop a plan to fund a ten year program budget, and consider providing start up funding for current fiscal year (FY 05-06).

3. OPTIONS (List advantages/Disadvantages of Each Option Listed)

A. Establish Stormwater Utility Fee. Adv: (1) provides dedicated funding source; (2) provides equitable distribution of costs based on property's impact to stormwater (impervious area); (3) could positively affect obtaining state grant awards—they're prioritized based on stormwater utilities or other dedicated funding programs. Disadv: (1) establishes a new fee (2) very costly to administer the needed billing system.

B. Establish Dedicated Millages. Adv: (1) provides dedicated funding sources; (2) state prioritizes grant awards based on stormwater utilities or other dedicated funding programs. Disadv: (1) real estate value has very little correlation to property's impact to stormwater; (2) funding would be very complex due to multiple funds involved in dedicating millage.

C. Provide funding from existing funding sources. Adv: (1) no need to dedicate millage or establish a stormwater utility fee. Disadv: (1) reduces funding amounts available for other purposes.

D. No action. Adv: (1) no need to establish a fee or dedicated millage or set aside of funds. Disadv: (1) inability to meet flood protection goals, TMDL requirements, and hydrological restoration

4. FINANCIAL IMPACTS/FUNDING SOURCE

The program could be funded as follows:

A.1. Stormwater Utility Fee—utilizing a flat rate residential structure with a typical residential charge of $3.31 monthly, or $39.73 annually to cover full program costs. Fees to support only the $6 million shortfall would require a typical residential charge of $0.73 monthly ($8.70 annually).

A.2. Stormwater Utility Fee—utilizing a multi-tier residential rate structure with a typical residential charge of $3.87 monthly ($46.40 annually) to cover full program costs. Fees to support only the $6 million shortfall would require a typical residential charge of $0.84 monthly ($10.10 annually.)

B. Dedicated Millage amounts would be a mixture stemming from three millage levies—Capital Improvement Fund, General Fund and Unincorporated MSTU funds. The allocation of dedicated millages would need to be adjusted annually depending upon the set of projects to be funded each year.

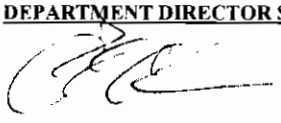
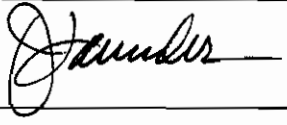
C. Existing Funding Sources refers to all revenue streams combined that provide monies from the Capital Improvement Fund, General Fund and Unincorporated MSTU funds.

5. STAFF RECOMMENDATIONS, AND JUSTIFICATION FOR RECOMMENDATIONS

Consider authorizing $4 million from appropriate reserves to fund FY05-06 start up needs that are currently unbudgeted and begin process of determining future funding.

6. Mandated: Y N **BY WHAT AUTHORITY?**

Water quality compliance mandated through federal Clean Water Act and state TMDL Rules. Flood protection and water conservation/ supply is a public health, safety and welfare obligation.

DEPARTMENT DIRECTOR SIGNATURE	COUNTY MANAGER SIGNATURE	MEETING DATE	TIME REQUIRED
		1/09/06	15 Minutes

STORMWATER UTILITY PROJECT LIST

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE C OR M*	SFWMD GRANT Y or N	LOCAL/ REGIONAL L or R	PRIOR YEARS EXPENSES	CARRY OVER BUDGET	BUDGET FY 05/06	BUDGET FY 06/07	BUDGET FY 07/08	BUDGET FY 08/09	BUDGET FY 09/10	BUDGET FY 05/06-09/10	BUDGET YEARS 6-10	TOTAL PROJECTED COST
	CURRENT PROJECT LIST													
208545	Briarcliff Ditch Filter Marsh	C			13,346	411,654	-	-	-	-	-	-	-	425,000
408581	Caloosahatchee River Tributaries Maintenance	M			313,255	218,316	220,000	220,000	-	-	-	440,000	-	971,571
--	Eagle Ridge/Legends Interconnect	C			-	-	-	450,000	-	-	-	450,000	-	450,000
208586	East Lee County Creek Restoration	C			98,779	151,221	-	-	-	-	-	-	-	250,000
403133	Filter Marsh/BMP Maintenance	M			-	-	100,000	300,000	300,000	300,000	300,000	1,300,000	1,500,000	2,800,000
208533	Gator Slough Channel Improvements	C			748,149	2,433,551	-	-	-	-	-	-	-	3,181,700
203060	Gator Slough Phase I & II	C			1,447,610	352,390	-	-	-	-	-	-	-	1,800,000
208546	Island Park Filter Marsh	C			-	268,000	2,000,000	-	-	-	-	2,000,000	-	2,268,000
208513	Lakes Park Water Quality Project	C			322,764	2,137,814	-	-	-	-	-	-	-	2,460,578
408514	Neighborhood Improvement Program	M			3,675,193	204,882	350,000	380,000	380,000	380,000	380,000	1,870,000	1,900,000	7,650,075
--	NFM/Charlotte County Aerial Contour Mapping	M			-	-	-	750,000	-	-	-	750,000	-	750,000
208553	North Lee County Hydrologic Restoration	C			7,864	542,136	-	-	-	-	-	-	-	550,000
208587	North Lee County Surface Water Management	C			-	160,000	-	-	-	-	-	-	-	160,000
403134	Orange River Outfall	M	Y		-	-	250,000	250,000	-	-	-	500,000	-	500,000
208584	Powell Creek Hydrological Restoration	C			9,631	465,369	300,000	-	-	-	-	300,000	-	775,000
408534	SFWMD Grant Projects	M			637,287	-	600,000	600,000	600,000	600,000	600,000	3,000,000	3,000,000	6,637,287
208583	SFWMD Drainage Improvements	C			18,683	206,317	-	-	-	-	-	-	-	225,000
208538	Spanish Creek Restoration	C			6,966	433,032	-	-	-	-	-	-	-	440,000
408585	Stroud Creek Restoration	M			1,499	298,501	-	-	-	-	-	-	-	300,000
--	Sunniland/Nine Mile Run Drainage Study				-	-	-	350,000	-	-	-	350,000	-	350,000
400983	Surface Water Management Plan	M			7,634,937	790,420	250,000	250,000	250,000	250,000	250,000	1,250,000	1,250,000	10,925,357
202965	Ten Mile Canal Filter Marsh	C			1,649,532	1,821,270	-	500,000	-	-	-	500,000	-	3,970,802
208539	Ten Mile Canal/Six Mile Cypress Pump Facility	C			-	250,000	-	-	-	-	-	-	-	250,000
208547	Three Oaks Parkway Filter Marsh	C			6,730	993,270	3,000,000	1,800,000	-	-	-	4,800,000	-	5,800,000
208582	Water Quality Monitoring Network	C			111,475	428,525	-	-	-	-	-	-	-	540,000
--	Water Quality Mitigation Projects	C			-	-	-	-	-	1,000,000	1,000,000	2,000,000	5,000,000	7,000,000
	CURRENT PROJECT LIST TOTAL				16,703,702	12,566,668	7,070,000	5,850,000	1,530,000	2,530,000	2,530,000	19,510,000	12,650,000	61,430,370
	NEW PROJECT LIST													
	Briarcliff/Fiddlesticks WQ Improvements	C		R	-	-	-	-	-	1,400,000	2,000,000	3,400,000	-	3,400,000
	Caloosahatchee SII for TMDL Compliance	C		R	-	-	200,000	500,000	500,000	500,000	500,000	2,200,000	6,300,000	8,500,000
	Chapel Branch Culvert Replacement Rich Road	C		L	-	-	150,000	-	-	-	-	150,000	-	150,000
	Charlotte Harbor SII for TMDL Compliance	C		R	-	-	100,000	200,000	200,000	200,000	200,000	900,000	725,000	1,625,000
	Clean and Snag Program	M		L	-	-	-	-	400,000	400,000	200,000	1,000,000	700,000	1,700,000
	Cohn Branch Channel Restoration Donald-Gardenia	C		L	-	-	54,000	214,000	-	-	-	268,000	-	268,000
	Cohn Branch Culvert Replacement Cohn Road	C		L	-	-	-	-	25,500	-	-	25,500	-	25,500
	Cohn Branch Culvert Replacement Donald Road	C		L	-	-	-	-	42,000	-	-	42,000	-	42,000
	Cohn Branch Culvert Replacement East Gardenia Cir	C		L	-	-	-	-	25,500	-	-	25,500	-	25,500
	Cohn Branch Culvert Replacement Jones Road	C		L	-	-	-	-	25,500	-	-	25,500	-	25,500
	Cohn Branch Culvert Replacement West Gardenia C	C		L	-	-	-	-	25,500	-	-	25,500	-	25,500
	Daughtrey's Creek Channel Excavation I-75 North	C		L	-	-	-	-	-	-	71,400	71,400	285,600	357,000

11/30/05

STORMWATER UTILITY PROJECT LIST

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE C OR M*	SFWMD GRANT Y or N	LOCAL/ REGIONAL L or R	PRIOR YEARS EXPENSES	CARRY OVER BUDGET	BUDGET FY 05/06	BUDGET FY 06/07	BUDGET FY 07/08	BUDGET FY 08/09	BUDGET FY 09/10	BUDGET FY 05/06-09/10	BUDGET YEARS 6-10	TOTAL PROJECTED COST
	Daughtrey's Creek Culvert Replacement Bright Road	C		L	-	-	-	-	-	-	32,900	32,900	-	32,900
	Daughtrey's Creek Prairie Pine Restoration	C		R	-	-	-	-	-	-	350,000	350,000	150,000	500,000
	Daughtrey's East Culvert Replacement Old SR 78	C		L	-	-	-	-	-	-	39,000	39,000	156,000	195,000
	Daughtrey's East Culvert Replacement Rich Road	C		L	-	-	-	-	-	-	21,600	21,600	86,400	108,000
	Daughtrey's East Culvert Replacement Sean Lane	C		L	-	-	-	-	-	-	39,000	39,000	156,000	195,000
	Daughtrey's East Culvert Replacement Slater Pines	C		L	-	-	-	-	-	-	33,000	33,000	132,000	165,000
	Daughtrey's East Nalle Grade Extension to I-75	C		R	-	-	-	450,000	750,000	-	-	1,200,000	-	1,200,000
	East Mulloch Drainage District Facility Analysis	M		L	-	-	200,000	-	-	-	-	200,000	-	200,000
	East Mulloch Drainage District Filter Marsh	C		R	-	-	-	-	20,000	100,000	-	120,000	-	120,000
	East Mulloch Drainage District Weir Replacement	C		R	-	-	300,000	300,000	-	-	-	600,000	-	600,000
	Estero River North Branch Flowway Restoration	C		R	-	-	-	-	100,000	600,000	-	700,000	-	700,000
	Everglades West Coast SII for TMDL Compliance	C		R	-	-	200,000	500,000	500,000	500,000	500,000	2,200,000	6,300,000	8,500,000
	Fichter Creek Restoration at County Park	C		R	-	-	-	1,400,000	600,000	-	-	2,000,000	-	2,000,000
	Halfway Creek Filter Marsh & Weir at U.S. 41	C		R	-	-	-	800,000	1,400,000	-	-	2,200,000	-	2,200,000
	Hancock Creek Culvert Replacement	C		L	-	-	-	-	81,000	-	-	81,000	-	81,000
	Imperial River Ag BMP and Education Program	M		R	-	-	-	-	-	-	50,000	50,000	200,000	250,000
	Kehl Canal Weir Modification	C		R	-	-	70,000	30,000	-	-	-	100,000	-	100,000
	Lakes Park Master Plan	C		R	-	-	-	-	120,000	600,000	-	720,000	-	720,000
	Leitner Creek Flowway Restoration	M		R	-	-	-	-	-	-	90,000	90,000	350,000	440,000
	Maintenance of CIP Projects	M		R	-	-	-	-	-	200,000	300,000	500,000	2,500,000	3,000,000
	Matlacha Pass Hydrologic Restoration Phase I	C		R	-	-	-	1,000,000	-	-	-	1,000,000	-	1,000,000
	Matlacha Pass Hydrologic Restoration Phase II	C		R	-	-	-	-	300,000	900,000	-	1,200,000	-	1,200,000
	Otter Creek Culvert Replacement Duke Hwy	C		L	-	-	-	-	-	-	23,000	23,000	-	23,000
	Palm Creek Restoration (Durance Culvert)	C		L	-	-	-	-	-	-	-	-	600,000	600,000
	Popash Creek Calooshatchee Creek Preserve Restor	C		R	-	-	-	-	-	-	240,000	240,000	-	240,000
	Popash Creek Culvert Replacement Pine Echo Road	C		L	-	-	51,000	204,000	-	-	-	255,000	-	255,000
	Popash Creek Preserve (Pritchitt Mine)	C		R	-	-	2,400,000	-	-	-	-	2,400,000	-	2,400,000
	Powell Creek Bypass Enhancement SR 78 - Valencia	C		L	-	-	-	-	-	-	50,000	50,000	100,000	150,000
	Powell Creek Bypass North Extension	C		R	-	-	-	-	-	-	-	-	1,200,000	1,200,000
	Powell Creek Preserve Hydrological Restoration	M		R	-	-	-	-	-	-	50,000	50,000	250,000	300,000
	Prairie Pine Restoration	C		R	-	-	-	-	-	-	300,000	300,000	-	300,000
	Spring Creek PMP Development for Older Develop	C		R	-	-	-	-	-	-	-	-	100,000	100,000
	Stroud Creek Caloosahatchee Creek Preserve	C		R	-	-	-	-	-	-	-	-	300,000	300,000
	Stroud Creek Vegetation Removal SR 78 - St. Paul	M		L	-	-	-	-	-	-	-	-	675,000	675,000
	Ten Mile Canal Filter Marsh Phase II	C		R	-	-	-	-	200,000	300,000	700,000	1,200,000	1,600,000	2,800,000
	Ten Mile Canal/Hanson Street WQ Improvements	C		R	-	-	50,000	300,000	-	-	-	350,000	-	350,000
	Trout Creek Ag BMP and Education Program	C		R	-	-	-	-	-	-	50,000	50,000	200,000	250,000
	Yellow Fever Creek/Gator Slough Transfer Facility	C		R	-	-	200,000	400,000	-	-	-	600,000	-	600,000
	NEW PROJECT LIST TOTAL				-	-	3,975,000	6,298,000	5,315,000	5,700,000	5,839,900	27,127,900	23,066,000	50,193,900
	TOTAL ALL PROJECTS				16,703,702	12,566,668	11,045,000	12,148,000	6,845,000	8,230,000	8,369,900	46,637,900	35,716,000	111,624,270

11/30/05

LEE COUNTY
SOUTHWEST FLORIDA

STORMWATER SERVICES FUNDING OPTIONS

Prepared for:
Lee County
Natural Resources Division

October 2005

URS CORPORATION
7650 Courtney Campbell Causeway
Tampa, Florida 33607

LEE COUNTY
SOUTHWEST FLORIDA

EXECUTIVE SUMMARY

Lee County faces a multitude of stormwater management challenges in the next decade including reduction/elimination of chronic flooding problems, increasing regulatory requirements, rapid growth, improved levels of service, effective conservation of existing water resources to meet future needs and protection of natural systems. Addressing all of these challenges will require vision, time and adequate funding for capital investments and annual operations.

The purpose of this report is to examine current and foreseeable future stormwater management requirements in Lee County, project potential costs, and examine a number of approaches for funding these services in the next decade. Specific activities that have been accomplished and summarized in this report include:

- Development of an overview of the importance of stormwater management activities and recent changes in stormwater management requirements.
- Review of Lee County's current stormwater services program and costs.
- Assessment of the foreseeable expansion of the County's current stormwater services program that will be required to improve existing flood protection levels, comply with the County's NPDES Municipal Separate Stormwater Sewer System (MS4) Permit, undertake ancillary water conservation opportunities, begin to address the pending Total Maximum Daily Load (TMDL) requirements, and to start preparing for the impacts of the evolving Statewide Stormwater Management Rule.
- Examination of alternative approaches for funding current and future stormwater services including an enterprise-based stormwater utility.
- Assessment of the potential fee structures of the three preferred stormwater funding approaches.

The result of these assessments indicate that the projected long-term cost of meeting the minimum stormwater management expectations of the residents and businesses of Lee County and the regulatory requirements the State of Florida, the South Florida Water Management District is likely to average $27 million annually over the next decade. This includes a $6 million enhancement to the current program expenditures of $21 million. Three revenue sources that can best fund this program include:

- Stormwater Utility Fee that utilizes a flat rate residential structure with a typical residential charge of $3.31 monthly, or $39.73 annually. Fees to support only the program expansion would require a typical residential charge of $0.73 monthly ($8.70 annually).
- Stormwater Utility Fee that utilizes a multi-tier residential rate structure with a typical residential charge of $3.87 monthly ($46.40 annually). Fees to support only the program expansion would require a typical residential charge of $0.84 monthly ($10.10 annually).
- Ad-Valorem Millage Reservation of 0.546 mils yielding a typical residential charge of $7.67 monthly ($92.04 annually). A millage reservation of 0.125 mils would support the program expansion while

yielding a typical residential charge of $1.75 monthly, or $21.00 annually.

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Section One
INTRODUCTION

1.1 PURPOSE

Lee County is facing a significant demand for enhanced stormwater management services from its residents and businesses and combined Federal, State and regional environmental regulatory programs that are raising the bar on minimum water quality in the County's receiving waterbodies. In addition, there is a public responsibility to provide a certain level of flood protection to protect the health, safety and welfare of its citizens and to provide a sustainable water supply through the proper management of our water resources. The purpose of this document is to

- Provide a summary of the current and foreseeable future stormwater management challenges facing Lee County;
- Project the potential costs of meeting these requirements; and,
- Examine a number of approaches for funding these services in the next decade.

1.2 BACKGROUND

The United States Environmental Protection Agency (EPA) issued NPDES Permit FLS000035 to Lee County, which regulates the discharge of stormwater and other authorized flows within the unincorporated county limits through the Municipal Separate Storm Sewer System (MS4) into waters of the State. Although there are currently no numeric limits set forth in Lee County's MS4 Permit, there are provisions for USEPA and FDEP to reopen the permit and insert these provisions upon the adoption of Federal TMDLs by USEPA or State TMDLs by FDEP.

The recent emergence of Federal and State Total Maximum Daily Load (TMDL) programs focus on reducing pollutant loads discharged to impaired waters. The enforcement mechanism for achieving these reductions is enforcement through the NPDES permit. There are a significant number of impaired waters that receive discharges from unincorporated areas of Lee County including the Caloosahatchee River and estuary, Estero Bay and its tributaries, Charlotte Harbor and many of other tributary streams.

The NPDES program for Stormwater discharge was developed pursuant to Section 402 of the Federal Clean Water Act (33 USC Section 1251). The permit requires the County to provide *"adequate resources"* for implementation of the requirements included as part of the permit. Adequate resources are defined to include:

- Staff time to enforce the permit monitoring and administration requirements;
- Funds for capital expenditures that may be required to meet the permit; and,
- Equipment for use in meeting the requirements set forth in the permit.

Lee County's existing stormwater services and budgeted funding are not sufficient to meet the Federal and State compliance expectations. Lee County's elected leadership, administrators and staff will need to enhance existing stormwater services to meet the service expectations of its residents and businesses, as well as comply with the County's NPDES Permit and avoid enforcement actions.

1.3 Organization of the Remainder of the Report

Overall, the study work elements were accomplished through a collaborative work effort of County staff and the URS, with a narrowly focused limited level of technical analysis to generate order of magnitude program cost estimates. This summary report presents the significant results and key findings of the work effort, without burdening the reader with a substantial amount of detailed technical information, methods nor assumptions to document. Consequently, the remainder of the document is dedicated to providing the following information:

- Overview of the importance of stormwater management activities and recent changes in stormwater management requirements;
- Review of Lee County's current stormwater services program and costs;
- Assessment of the foreseeable expansion of the County's current stormwater services program that will be required to comply with the County's NPDES Municipal Separate Stormwater Sewer System (MS4) Permit, to begin to address the pending Total Maximum Daily Load (TMDL) requirements, and to start preparing for the impacts of the evolving Statewide Stormwater Management Rule;
- Examination of alternative approaches for funding current and future stormwater services including an enterprise-based stormwater utility; and,
- Assessment of the potential fee structures of the three preferred stormwater funding approaches.

Data and information, technical assessments, detailed discussion of the methods and assumptions that were used in the foregoing analyses were summarized in a series of topic specific technical memoranda that were provided to County Staff during the execution of this work.

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Section Two
MISSION, VISION AND GOALS

2.1 CHANGING WATER MANAGEMENT PERSPECTIVES

Stormwater is that part of rainfall that we want to be removed from the property where it landed, or where it was directed by natural drainage patterns, known as runoff. Stormwater runoff, if not properly managed, *has been shown to* endanger the health, safety and welfare of numerous communities by causing flooding, polluting water supplies, contributing to the spread of disease, contributes to unnatural drought and too frequent incidences of fire, and endangering water quality in receiving water bodies. Our challenge is to properly manage stormwater. Given past development practices, this is not an easy challenge.

Florida's communities have been involved in an intermittent battle with Nature since the late 1880s in which water was the common enemy. During most of this period the goal of the community was to "ditch to daylight" and drain the State's lands to make them "more productive". The charge for Public Works departments was to keep streets passable and minimize flooding. This period, often times referred to as the *Era of Drainage*, viewed stormwater runoff and much of the surface waters as a too plentiful nuisance, with no real value.

During the late 1960s the citizens of the State of Florida began to better understand the relationships between stormwater runoff and environmental health, community water supplies, water-based recreation, and the overall quality of life that Floridians enjoy. Continuing degradation of the State's streams, lakes, ponds and estuaries during the 1970s, 1980s and 1990s, combined with a rapid increase in the consumption of Florida's potable groundwater supplies, has focused Federal and State regulatory attention on improving water quality and conserving the dwindling groundwater supplies for potable consumption.

As a result of these concerns, we are currently moving to the *Era of Water Resource Management*, which is characterized by an increasing concern over the availability of an adequate raw water supply that is suitable to meet Florida's daily potable water needs and satisfy Florida's environmental requirements. These three factors - flood control, potable water supply and environmental management requirements - have shaped the current planning and regulatory perspectives of Florida, and form the foundation of the Era of Water Resource Management. This era was initiated by the Environmental Land Management legislation in 1972-75, and further emphasized by an amendment to the Florida Constitution in 1976 which gave water management districts constitutional direction.

Lee County has experienced explosive growth over the last two decades in which houses have been constructed on long-standing developed platted lots and new subdivisions have been constructed on raw land. This upswing in residential construction, and its accompanying commercial development, have dramatically increased the demand for potable water supply demands and impacted the

County's water quality, natural habitat and environmental conditions. Lee County needs to commit to the principles of water resource management in order to assure a bright future for its citizens, its environment and its high quality of life.

2.2 SMART GROWTH INITIATIVE

Lee County has undertaken a Smart Growth Initiative that seeks to use community growth to achieve a number of strategic results without the adverse impacts. The goal of Smart Growth is to achieve a good balance between community livability, economic viability, and environmental sensitivity. One of its keys is proactive, inclusive, community-supported growth management. Elements include, but are not limited to, Environmental Quality, Land Use, Transportation, Water Supply and Community Character.

To date, the Smart Growth Committee has conducted a number of workshops and prepared the following recommendations relative to water resource management:

- Move emphasis from stormwater runoff opportunities to stormwater storage opportunities.
- Use infill and redevelopment as opportunities to improve water quality through better stormwater storage and release
- Use the basin and sub-basin borders as the boundary for analysis of impervious cover, stormwater volume and storage targets, water quality targets, and BMP applicability.
- Relate water table and other aquifer recharge needs to the siting of natural or manmade storage opportunities
- Relate streamflow Minimum Flows and Levels (or better) to storage targets
- Evaluate our success in the DRGR in updating management techniques employed in desired water storage or resource areas.
- Provide for private partnership opportunities in storage and flow management.
- Identify and establish working agreements with the other public agencies needed to achieve stormwater management objectives.

2.3 COMPREHENSIVE VISION

A comprehensive vision for the development and management of the County's water resources, which embraces the principles of both the Era of Water Resource Management and Lee County's Smart Growth Initiative, will be essential for meeting the County's long-term goals and comprehensive planning objectives. Key elements of this comprehensive vision include:

Element 1:

Minimizing the Effects of Flooding outside of identified floodplains

Job number one, in the view of most property owners and residents, is minimizing the frequency and severity of threat to life, and built property damage due to *structural* flooding. A lesser degree of threat is damage to vegetation, and the least degree is the varying degrees and the level of inconvenience caused by non-structural flooding. To achieve this goal, Lee County will:

- Develop GIS-based mapping of existing drainage systems, water control structures, attenuation systems, treatment facilities and other Best Management Practices (BMPs).
- Develop GIS-based mapping of the areal extent of existing 100-year floodplains.
- Document and classify reported structural and non-structural drainage complaints and develop GIS-based mapping of these complaints.
- Monitor rainfall, runoff, channel flows and stages and lake levels, and major outfalls to receiving water bodies
- Conduct periodic evaluation of hydrologic data to document current conditions, define trends and define storm event intensity-duration-frequency relationships.
- Implement remote sensing capabilities at strategic locations throughout the unincorporated county to enable real-time assessment of flooding potential/conditions in waterbodies and water courses, enable forecasting, and support emergency response activities
- Continue its ongoing planning efforts and capital investment program to eliminate structural flooding associated with common storms.
- Continue current regulatory activities to prevent development within the 100-year floodplain, and require flood-proofing as the first response to flood issues for development that does occur.
- Enhance the existing stormwater and floodplain management efforts to improve the County's Community Rating System (CRS) score in order to reduce National Flood Insurance Program annual premiums for property owners within Lee County.

Element 2:

Maintaining Potable Water Supply Sources

Job number two is maintaining potable water supply sources that meet community needs. The *two* three components of this mandate are that: available water supplies must be adequate to meet growing community requirements well into the future; *and that* the supplies must not be contaminated to the extent that it may pose a health threat to the community; and, that domestic self supplied sources not be depleted due to over-drainage and prevention of recharge of aquifers. To achieve this goal, Lee County will:

- Project the quantity and spatial distribution of foreseeable future potable and domestic water demands within the County.
- Designate specific water supplies to provide for these projected needs.
- Identify surface water and groundwater protection zones for the designated potable and domestic water supplies
- Develop and update (as required) a potable and domestic water protection ordinance that prohibits or regulates land use activities within the identified protection zones, and coordinates with sanitation, solid waste, and hazardous materials codes and regulations.
- Implement and enforce the water supply protection zone ordinance.

Element 3:

Maintaining the Quality of the Environment

Abundant natural beauty of is one of the major reasons that people have chosen to live in Lee County. Combined with the year-round weather, the natural environment forms the basis for the high quality of life enjoyed by the County's full-time and seasonal residents and tourists. It is also important to maintain the quality of the natural environment in order to offer an attractive business environment, to increase local tourism, and to continue to have a growing tax base. To achieve this goal, Lee County will:

- Identify key indicator/reference natural systems that are suitable for establishing long-term ecological trends within the County.
- Periodically survey, sample and analyze the ecological conditions in the selected key indicator/reference natural systems, and assess trends in ecological conditions over time.
- Vigorously advocate that the appropriate Federal and State agencies acknowledge and use comparable indicators, and to acknowledge and use Lee County as a partner in the protection of natural systems and their floral and faunal ecologic systems.
- Better control the flow regime in natural and constructed wetland/marsh areas to better replicate the natural variability of flows ranging from minimal baseflow conditions to pulsed storm event flows in order to maintain ecosystem health.
- Recognize the value of natural systems in the treatment of surface waters, reduction of pollutant loads to estuarine water, and recharge of the community's groundwater systems.
- Recognize that the County's natural systems are an integral part of the high quality of life enjoyed by Lee County residents, and recognize the relationship between natural systems and our economic sustainability.

Element 4:

Reducing Stormwater Discharges

Reducing stormwater discharges is the key to minimizing flooding, assuring adequate water supplies for the foreseeable future and maintaining the quality of the environment. Effectively reducing off-site stormwater discharges increases

groundwater recharge, conserves water for future uses, and decreases the annual pollutant load discharged to Lee County's streams, lakes and estuaries. To achieve this goal, Lee County will:

- Quantify the volume and pollutant characteristics of existing stormwater discharges.
- Document and classify all reports of illicit discharges and develop GIS-based mapping of these reports.
- Periodically sample and analyze stormwater discharges for different types of land uses within the County, *and* assess trends in stormwater discharges over time related to changes in impervious surface, by watershed.
- Follow the current studies and pending/potential changes in SFWMD's ERP regulations that are seeking to match post-development discharge volumes and pollutant loads to pre-development discharge volumes and pollutant loads, and promote a pre-post storage component.
- Follow developments in Florida's Total Maximum Daily Load (TMDL) program, *and* development of TMDLs for impaired waterbodies in Lee County, and evaluate the most appropriate approach for the County's discrete watersheds.
- Examine current Low Impact Development (LID) techniques relative to their potential benefits and applicability for reducing off-site stormwater discharges in the unincorporated County, and incorporate LID design criteria as appropriate into the Lee County land development regulations as appropriate

Element 5:

Supporting Water Resources Objectives in the Planning and Management of Community Growth and Development

Many departments within the Lee County government have the ability to impact the County's water resources, and subsequently mitigate the impacts of their activities on these water resources. It is critical that all departments recognize, incorporate and support water resources objectives in the planning and management of community growth and development to assure the efficient delivery of services to the Public and protect the County's water resources for the current and future residents. To achieve this goal, Lee County's water resources staff will:

- Identify points of interactions with other County programs which currently or potentially will impact potable water supply and availability, water quality in the County's receiving waters, or natural habitat and environmental conditions. This effort should map areas where public policy decisions are needed to emphasize increased attention to stormwater issues.
- Coordinate with staff in other County departments to ensure that an integrated approach is utilized in the regulation of current development activities and the planning for future growth.
- Coordinate between departments and with County administration regarding the timing and execution of CIP projects that will potentially

impact potable water supplies and availability, water quality in the County's receiving waters, or natural habitat and environmental conditions.

- Coordinate between departments and with County administration regarding the achievement of regulatory compliance in annual operations and CIP projects, especially with regard to the County's Municipal Separate Storm Sewer System (MS4) and Point Source NPDES permits, and requirements of the FDEP's evolving TMDL Program.

Beyond internal communication, the County will need to coordinate with cities, adjacent counties, special purpose districts and SFWMD in regional matters including stormwater pollutant load reductions required by TMDLs and conservation of regional water supply sources.

Element 6:
Maintaining Water Resources Infrastructure to Optimize its Function

Continuing maintenance of water resources infrastructure is critical if it is to function properly and provide the necessary service capacity to meet the citizens' needs. County staff needs to provide sufficient maintenance of the County's capital investment in infrastructure so as to maintain its capacity and prolong its useful service life. To achieve this goal, Lee County will:

- Re-publicize the function and purpose of stormwater infrastructure, and its priority in achieving area-wide quality of life.
- Conduct periodic inspection of existing infrastructure systems, document field conditions, and identify maintenance needs.
- Development a set of minimum maintenance standards/frequencies by infrastructure component based upon the analysis of the inspections reports.
- Develop and implement a maintenance management program that achieves the adopted minimum maintenance standards/frequencies.
- Document and evaluate trends in the unit costs of specific maintenance activities.
- Evaluate the treatment efficiency vs. maintenance frequency relationships for conventional and new BMPs being implemented in the County in order to determine which BMPs are more cost effective as a basis for future capital investments in stormwater treatment facilities.
- Optimize maintenance activities and update the minimum maintenance standards/frequencies based upon analysis of long-term trends and costs.

Element 7:
Adequately Fund Approved Capital Investments and Annual Operating Activities Required by the Preceding Six Elements

Capital investments, including stormwater and water resources capital improvements, need to be planned, designed and constructed in a timely manner in order to assure that the County's infrastructure is available in a timely

manner. Lee County will provide sufficient annual funding to achieve the approved CIP projects and annual operating budgets to provide and maintain adequate infrastructure capacity to meet the community's needs. Lee County will redefine stormwater "infrastructure" to include the measurable functions of the natural systems that is achieving stormwater management goals, and the maintenance and operational activities needed to keep the systems functioning. To achieve this goal, Lee County will:

- Develop and maintain a capital investment plan that includes all water resources projects, prioritized based upon community goals, and scheduled based upon community needs.
- Identify opportunities for strategic land acquisitions to support capital projects, Concept 2020, the Regional Mitigation and similar initiatives and long-term resource management programs.
- Document the cost-benefit relationship of current and future water resource activities.
- Develop and maintain a summary of all capital funding sources that can be used to support water resources projects, including Federal, State, regional and local funding sources, that identifies the annual capacity of these funding sources and documentation of specific use limitations.
- Develop supplemental funding for stormwater management activities in the unincorporated portions of the County to provide supplemental funding for required capital investments and annual operating activities.

2.4 Stormwater Management Mission

Lee County, with its continuing growth, has focused upon the community's stormwater management needs, and developed the following mission statement:

> *To provide essential stormwater management services in an efficient, cost effective and timely manner to sustain the unmatched quality of life enjoyed by the citizens of Lee County by protecting public and private property from flooding, maintaining the use and passability of primary and secondary roadways, conserving existing water sources, protecting the community's water supplies from contamination, minimizing the degradation of the environment and natural habitats, and maintaining the beneficial use of receiving waters within the county limits.*

2.5 Statement of Goals

County stormwater management objectives, based upon the needs of the citizens of Lee County, include:

- Development of an integrated management approach based upon a science based understanding of the nature of the runoff component of the water budget, the relationships between the runoff and storage components.
- Collection and conveyance of stormwater runoff to prevent flooding public and private property and flooding of streets

- Treatment of stormwater runoff to reduce pollutant discharges to receiving waters.
- Operation of publicly owned stormwater management facilities to achieve maximum flood control, and water quality benefits for the community.
- Conserve water by reducing over drainage of natural systems by constructed drainage facilities in adjacent developed lands through a process of a tempered balance of drainage and natural systems protection objectives.
- Development and subsequent maintenance of the necessary infrastructure to adequately manage and protect the County's water resources.
- Partnering with private property owners to achieve stormwater runoff and storage objectives.
- Maintenance of stormwater facilities to operate at their design capacities.
- Provide oversight and cooperation as appropriate with FDEP's and SFWMD's regulation of development and redevelopment activities to avoid flooding.
- Provide oversight and cooperation as appropriate with FDEP's and SFWMD's regulation of development and redevelopment activities to achieve established water quality and water conservation objectives and provide community benefits.
- Enforcement of the County's stormwater rules, regulations and requirements.
- Achievement of compliance with current FEMA floodplain management requirement in order to minimize Flood Insurance Program rates for Lee County's property owners.
- Attainment of compliance with current Federal and State water quality management and annual pollutant reduction requirements in order to reduce the environmental degradation of Lee County's water supplies and natural environments.
- Identification of seasonal trends and management of existing stormwater resources to restore seasonality to the extent possible to the County

The County's stormwater management mission statement and goals serve as the basis for the following evaluation of functional needs, funding and stormwater utility feasibility.

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Section Three
EXISTING STORMWATER MANAGEMENT PROGRAM

3.1 CURRENT PROGRAM SERVICES

Stormwater management functions are delivered Lee County by Community Development, Natural Resources and the Transportation Department, with administrative and logistical support provided by other departments within the County Government. This following summary focuses on the specific services which directly impact the management of flooding, water quality and natural systems.

❖ Community Development Department

The Community Development Department provides services associated with permitting, plan review, inspections, code enforcement, zoning, land use planning, environmental sciences, affordable housing, and historic preservation for properties located within unincorporated Lee County, the Town of Fort Myers Beach, and the City of Bonita Springs. Its mission is to promote public health and safety, help maintain a healthy environment, promote a strong local economy, and provide courteous, timely, and efficient service to the public.

- Comprehensive Planning is responsible for updating and maintaining the Lee County Comprehensive Plan (Lee Plan) which addresses the following stormwater related issues and concerns:
    - Requiring that development construct and maintain surface water management systems that must incorporate natural flowway corridors, cypress heads, natural lakes, and restore impacted natural flowway corridors;
    - Requiring that stormwater run-off be pre-treated through an acceptable recreated natural system or dry retention and water retention system, prior to discharging the run-off into existing lake or wetland (any aquatic) systems;
    - Requiring that golf courses include a vegetative setback measured from the edge of managed turf to the jurisdictional wetland line or top of bank of natural water bodies;
    - Setting and implementing goals, objectives, policies, and standards related to the management of flooding, water quality and natural systems through the zoning and development review processes that are consistent with the adopted Lee Plan;
    - Processing administrative interpretations of the Lee Plan relative to single-family residence provisions, wetland determinations, and clarifications of land use map boundaries;

- Processing annotations of the Lee Plan as described in Chapter XIII.c (Legislative Interpretations of the Plan), and privately and publicly initiated plan amendments;
- Continuously monitoring and evaluating the plan including requirements of Florida's Concurrency Rule (Chapter 9J-5, FAC);
- Working with local groups and citizens striving to plan the community future; and,
- Maintaining a current inventory of existing land uses for land within the unincorporated portions of Lee County.

- Plans Review and Permitting activities are conducted in the County's central offices in downtown Fort Myers, where personal over-the-counter information and assistance with a wide range of land use, development, building, and zoning permits is available. The Department utilizes a comprehensive development review process for major development projects to identify, consolidate, and coordinate the necessary permits and meet the requirements which may apply to the project at an early stage.
- Building Inspections and Code Enforcement staff investigates a wide variety of citizen complaints. Stormwater related complaints include abandoned vehicles, blasting, building without permits, excavations, lot mowing, construction in rights-of-way, trash, zoning/illegal land use and environmental violations/complaints. Environmental violations of particular interest for county-wide stormwater management include the unpermitted clearing of trees or other vegetation, unpermitted dredging or filling of wetlands, and noncompliance with development approval requirements and protected species issues.

❖ Natural Resources Division

The Natural Resources Division provides a wide array of services that focus on the management and protection of Lee County's natural resources through well permitting, water conservation, water quality monitoring, flood protection, beach preservation, waterway/marine resources, hazardous waste management and pollutant storage tank programs. Specific stormwater management components of the Department's activities include:

- Surface Water Management is responsible for stormwater master planning on a county-wide basis including administering the capital improvement program, development review of DRI projects, re-zoning and easement vacations, providing response to Requests for Action (RFAs), mapping and cataloging of drainage facilities, preparation of simulation models for selected rainfall events, monitoring water quality at selected locations, and monitoring rainfall and flood stage recordings.
- Stormwater NPDES Compliance is required pursuant to the Federal Stormwater NPDES (National Pollutant Discharge Elimination System) and the Department's staff are responsible for implementation of the County's MS4 (Municipal Separate Storm Sewer System) permit that requires Lee County to manage its stormwater system discharges to reduce annual pollutant loads to the maximum extent possible through the use of stormwater quality control measures including structural BMPs (Best Management Practices), systemwide operations and maintenance

programs, public education, and enforcement of stormwater regulations and periodic inspections.

- The Environmental Lab was established in 1973 and is responsible for analytical support for Lee County Government and its citizens by providing environmental and compliance monitoring of the waters in Lee County.
- Hydrological Monitoring Program is responsible for collecting data from a network of monitoring equipment in Lee County's major watersheds. The current monitoring network consists of recording rain gauges equipped to allow real time access, stage recorders that record water levels in surface waterways, and an extensive system of shallow aquifer wells.
- Groundwater Management is an essential management activity given the intimate hydrologic, hydraulic and water quality relationships between Lee County's groundwaters and surface waters. Management of the wellfield protection ordinance and plugging abandoned/flowing wells falls under the purview of this group. The Well Permitting Unit focuses on protecting Lee County's groundwater resources by ensuring that contractors who construct water wells, monitor wells, and test borings are in compliance with the Lee County Well Code.
- Pollution Prevention/Small Quantity Generator Program is an educational assistance program that focuses on aiding Lee County businesses in determining how to handle their hazardous waste properly. Information is distributed to the public through on-site visits and a quarterly newsletter is beneficial in reducing the amount of pollutants introduced to the County's stormwater management systems.
- Tanks Program operated by Lee County is a State contracted program that is responsible for overseeing the installation and closure of petroleum storage tanks operating in Lee County and their annual compliance inspections.
- Marine Services/Marine Sciences activities which indirectly benefit the County's stormwater management activities include removing derelict vessels that can cause water quality problems, overseeing the installation and maintenance of numerous aids to navigation that can prevent accidents and spills. Other activities which aid in the management of natural systems include the construction and monitoring of Lee County's artificial reefs, operation of the County's manatee protection plan, and a variety of coastal management projects.

❖ Transportation Department

The Transportation Department is responsible for a wide variety of civil engineering functions including public works, engineering services, transportation operations, traffic operations and toll facilities. Primary stormwater maintenance services are provided by the Operations Division which is responsible for maintenance of fresh water drainage canals, pipes and ditches, mowing, street sweeping, maintenance and repair of sidewalks and bike paths, pavement patching, and bridge operations and maintenance. Key activities that directly impact the management of flooding, water quality and natural systems include:

- Canal Maintenance for the primary and secondary canal systems is performed by the Transportation Department's Operations Division,

which delivers a variety of maintenance services including the repair of publicly owned stormwater structures, in support of the County's stormwater management program. Typical performance metrics include:

- 300 miles of primary drainage canals
- 160 acres of canal banks mowed
- 3,000 (est.) culverts and storm sewers cleaned/maintained
- 47 miles of canal cleaned
- 4000 miles (est.) of secondary stormwater system cleaned
- 6,100 cubic yards of sediment removed from canals and reclaimed

- Roadway and ROW Maintenance is also provided by the Operations Division in support of the County's stormwater management program. Normal work activities include the maintenance for fresh water drainage channels, pipes and ditches, mowing, street sweeping, debris removal, road shoulder repair, erosion control, and vegetation control. Typical performance metrics include:
  - 2,500 lane miles of street maintained
  - 133 miles of roadway shoulder graded
  - 21,800 feet of culverts/pipes flushed and cleaned
  - 7,600 feet of culverts/pipes repaired
  - 360 catch basins repaired
  - 65,000 acres of median/shoulder mowed
  - 500 catch basins cleaned
  - 52 miles of roadside swales excavated

❖ Capital Improvement Program

Lee County's Capital Improvement Program includes a number of capital projects that were designed to improve the County's ongoing management capabilities in flooding, water quality and natural systems. Most of the stormwater related CIP Projects are currently managed by the Natural Resources Division and consist of the following work activities:

- Acquisition, administration and acceptance of design services required to prepare construction documents and acquire permits.
- Bidding, evaluation of submittals and awarding of contracts for construction of stormwater CIP projects.
- Oversight of construction, approval of pay requests and acceptance of completed projects.

The current CIP projects reflect County's changing priorities for addressing chronic flooding problems within the community.

3.2 COST OF CURRENT SERVICES

In order to quantify the current program costs to support stormwater management activities, the URS Project Team and County staff worked together to identify the various routine program operations, facilities maintenance activities and capital projects implementation activities that are currently performed by the County.

Lee County's total stormwater management program was evaluated with emphasis upon meeting the goals set forth in the County's mission statements and goals and adopted levels of service. The relative utilization of each of the three departments providing stormwater related services, differentiated between specific services and functional activities, are summarized in Table 1.

Table 1
CURRENT LEVEL OF EFFORT ALLOCATED TO
STORMWATER MANAGEMENT ACTIVITIES
(as a portion of division/program operating budgets)

Department or Division	Division or Program	Administration	Survey and Mapping	Planning	Engineering	Regulation	Enforcement	Operations & Maintenance	Capital Improvements	BUDGET SUBTOTAL
Community Development	DCD - Planning			3%						3%
	Building Inspections						5%			5%
	Code Enforcement						5%			5%
	Development Review					10%				10%
	Plans Review						5%			5%
	Zoning Review					14%				14%
	DCD Plan Env Svcs					5%				5%
Natural Resources	Environmental Lab	3%					5%	40%	1%	49%
	Ground Water Mgmt			10%		5%	5%			20%
	Marine Svcs/ Sciences			10%						10%
	Pollutant Storage Tanks					20%				20%
	Small Quantity Generator						50%			50%
	Surface Water Mgmt	10%		30%	10%	20%	10%	10%	10%	100%
Transpor-tation	Canal Maintenance	3%	2%	2%	1%	2%	1%	89%		100%
	Roadway Maintenance	5%	1%	1%	1%	2%	1%	32%		43%

Lee County's current cost of stormwater services, based upon the *Fiscal Year 2004-2005 Budget*, is currently estimated at approximately $10,262,000 annually for ongoing stormwater management activities. Current expenditures, broken out for specific stormwater management activities, are summarized in the following tables:

Table 2
STORMWATER MANAGEMENT SUMMARY

Functional Activity	FY 04-05 Adopted Budget	Percent of Total Expenditures
Administration	$ 748,500	2.7%
Survey/ Mapping	155,700	0.6%
Planning	696,100	2.6%
Engineering	242,000	0.9%
Regulation	927,400	3.4%
Enforcement	1,010,600	3.7%
System O&M:	6,353,900	23.3%
CIP Management	127,700	0.5%
Subtotal of Annual Activities:	$ 10,261,900	37.7%
CIP Projects:	$ 16,981,400	62.3%
TOTAL EXPENDITURES:	**$ 27,243,300**	**100.0%**

❖ Annual Operating Costs

Estimated cost of specific functional activities within each of the divisions and/or program of the three departments providing stormwater related services are summarized in Tables 3 through 9.

Table 3
ESTIMATED COST OF ADMINISTRATION ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Natural Resources	Environmental Lab	$ 44,200
Natural Resources	Surface Water Management	113,000
Transportation	Canal Maintenance	80,300
Transportation	Roadway Maintenance	511,000
	TOTALS:	**$ 748,500**

Table 4
ESTIMATED COST OF SURVEY AND MAPPING ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Transportation	Canal Maintenance	$ 53,500
Transportation	Roadway Maintenance	102,200
	TOTALS:	**$ 155,700**

Table 5
ESTIMATED COST OF PLANNING ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Community Development	DCD - Planning	$ 57,800
Natural Resources	Ground Water Management	71,300
Natural Resources	Marine Services/Marine Sciences	72,400
Natural Resources	Surface Water Management	338,900
Transportation	Canal Maintenance	53,500
Transportation	Roadway Maintenance	102,200
	TOTALS:	**$ 696,100**

Table 6
ESTIMATED COST OF ENGINEERING ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Natural Resources	Surface Water Management	$ 113,000
Transportation	Canal Maintenance	26,800
Transportation	Roadway Maintenance	102,200
	TOTALS:	**$ 242,000**

Table 7
ESTIMATED COST OF REGULATION ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Community Development	Development Review	$ 199,300
Community Development	Zoning Review	88,100
Community Development	DCD Plan Environmental Services	59,700
Natural Resources	Ground Water Management	35,700
Natural Resources	Pollutant Storage Tanks	60,800
Natural Resources	Surface Water Management	225,900
Transportation	Canal Maintenance	53,500
Transportation	Roadway Maintenance	104,400
	TOTALS:	**$ 927,400**

Table 8
ESTIMATED COST OF ENFORCEMENT ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Community Development	Building Inspections	$ 231,400
Community Development	Code Enforcement	132,100
Community Development	Plans Review	93,200
Natural Resources	Environmental Lab	73,700
Natural Resources	Ground Water Management	35,700
Natural Resources	Small Quantity Generator	202,500
Natural Resources	Surface Water Management	113,000
Transportation	Canal Maintenance	26,800
Transportation	Roadway Maintenance	102,200
	TOTALS:	**$ 1,010,600**

Table 9
ESTIMATED COST OF OPERATIONS & MAINTENANCE ACTIVITIES

Department/Division	Division or Program	Cost of Administration Activities
Natural Resources	Environmental Lab	$ 589,900
Natural Resources	Surface Water Management	113,000
Transportation	Canal Maintenance	2,380,900
Transportation	Roadway Maintenance	3,270,100
	TOTALS:	**$ 6,353,900**

Table 10
ESTIMATED COST OF ADMINISTRATION FOR CIP PROJECTS

Department/Division	Division or Program	Cost of Administration Activities
Natural Resources	Environmental Lab	$ 14,700
Natural Resources	Surface Water Management	113,000
	TOTALS:	**$ 127,700**

❖ Annual Capital Investment Budget

The URS Project Team worked with County Staff to identify specific projects in the County's current CIP budget that provided management benefits for flooding, water quality and environmental systems. Specific CIP projects are identified in Table 11.

Table 11
SUMMARY OF IDENTIFIED STORMWATER CIP PROJECTS

Project Name	Total Identified Project Cost	Portion Related to Storm Water	FY 04/05 Storm Water CIP Budget
Alico Road Area Drainage Imprvmts	$ 1,084,000	100%	$ 982,800
Briarcliff Channel Weirs	479,000	100%	173,600
Briarcliff Ditch Filter Marsh	425,000	100%	425,000
Caloosahatchee River Trib. Maint.	917,600	100%	220,000
East Lee County Creek Restoration	250,000	100%	250,000
Flood Insurance Study Results Eval	100,000	100%	100,000
Gator Slough Channel Improvements	3,181,700	100%	2,687,300
Gator Slough Phase I & II	1,800,000	100%	1,128,600
Island Park Filter Marsh	2,268,000	100%	268,000
Lakes Park Water Quality Project	2,460,600	100%	2,159,400
Neighborhood Improvement Program	7,858,900	100%	443,700
North Lee County Hyd. Restoration	550,000	100%	550,000
NW Lee Co. Drainage Improvements	160,000	100%	160,000
Orr Road Bridge	350,000	100%	349,400
Powell Creek Hydrological Restoration	1,162,500	100%	475,000
SFWMD Drainage Improvements	400,000	20%	80,000
SFWMD Grant Projects	6,847,300	20%	120,000
Spanish Creek Restoration	440,000	100%	433,600
Stroud Creek Restoration	450,000	100%	300,000
Surface Water Mgmt. Plan	10,675,400	100%	969,900
Ten Mile Canal Filter Marsh	3,970,800	100%	3,185,900
Ten Mile Canal/Six Mile Cypress Pump	250,000	100%	250,000
Three Oaks Parkway Filter Marsh	5,800,000	100%	1,000,000
Water Table Monitoring Network	540,000	50%	269,200
CIP TOTALS:	**$ 52,420,800**		**$ 16,981,400**

3.3 ASSESSMENT OF SERVICES

Lee County operates a stormwater management program that has sought to meet a broad range of flooding reduction, water quality and environmental management, and regulatory compliance goals within the constraints of a limited annual budget. The results have varied annually with the amount and distribution of annual rainfall.

Regulatory programs have become progressively more challenging. Increasingly stringent water quality management requirements, combined with recent tropical weather patterns and higher service level expectations of both new and long-term residents, pose a structure of challenges that highlight the need for Lee County to improve strategies and programs for the long-term delivery of management services for flooding, water quality and natural systems.

County staff recognizes this need to improve the current levels of service for a number of their current stormwater management activities as the result of historic citizen complaints, studies and investigations, environmental monitoring activities, and the public meetings held in conjunction with this study.

Key findings, issues and considerations that have been recognized in this study include:

❖ Overall Program Direction

- Good results are currently being achieved by County staff through existing planning and operations practices and capital investment projects that efficiently use available County resources.
- It does not appear that the County's current staff and resources can be further stretched to accomplish the required expansion of program operations.
- Over the last decade the County has been successful in a long-term effort to move from delivering services on a reactive "as needed" or "crisis management" basis, to a more proactive "preventative" basis.
- The cumulative effect of early development in Lee County, coupled with the incremental impacts of the current trend of rapid new development, have collectively exceeded the assimilative capacity of the County's receiving waters and natural systems. This has resulted in water quality impairments and loss of natural system function.

❖ Current Levels of Service

- Service levels vary within the unincorporated county, and are directly impacted by overlapping responsibilities (Federal, State, regional and local agencies combined with the legal responsibilities of drainage districts, and condominium and home owner associations), previous land development practices (prior to the Stormwater Rule and its requirement for discharge attenuation and water quality treatment prior to discharge), and other institutional constraints.
- Existing service levels do not provide a level of water quality management that meets the needs of current residents with respect to

prevention of water quality degradation or mitigation of impacts on natural systems in the unincorporated county.

- Without increased resources for stormwater management activities, the County will continue to see further water quality degradation with corollary impacts to receiving waters, wetlands and other natural systems that are a significant component of the quality of life in Lee County.
- Current service levels do not meet the flood control needs of citizens in portions of the unincorporated county.
- Without increased resources for stormwater management activities, the County will not be able to resolve the chronic flooding problems that currently exist in portions of the unincorporated county, or be able to cope with the potential impacts of the evolving *Statewide Stormwater Rule* which will require substantial increases in on-site attenuation and treatment criteria prior to discharge.

❖ Adequacy of Services

- The current level of services, if escalated at the current level of cost of living increases, will not be sufficient to meet long-term County needs in the areas of flooding, water quality and environmental systems management.
- Incremental staffing and fiscal resource increases will be required in the next five years to maintain compliance with current Federal, State and local regulatory programs, specifically the County's MS4 Permit and foreseeable requirements of the State's evolving TMDL program, in order to avoid enforcement actions.
- Additional resources will need to be allocated to the current program elements for development of additional staff capacity and/or contracting for these incremental services from private sector sources.

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Section Four

EXPANDED STORMWATER MANAGEMENT PROGRAM

4.1 STORMWATER SERVICES EXPANSION

Lee County's existing stormwater services and budgets are not going to be sufficient to meet current expectations of residents and businesses for improved flood control, and also to comply with the minimum Federal and State regulatory compliance expectations for water quality management that are related to TMDLs as will be regulated through the provisions of the County's NPDES Permit.

Lee County will need to expand the scope and levels of effort in its current stormwater management program in order to comply with evolving Federal and State regulations and avoid enforcement actions. The following paragraphs describe the types of foreseeable enhancements and expansion proposed to prevent additional water quality degradation and meet permit conditions for stormwater discharges to State Waters.

EXPANDED ANNUAL OPERATIONS ACTIVITIES

- **Integrated Watershed Planning** - Beyond current planning activities, Lee County needs to update the following plans to reflect the rapidly changing conditions in the unincorporated county due to rapid growth and development and recent/ ongoing Federal, State and regional plans for water quality enhancement and natural systems protection:
  - Surface water watershed management master plans, especially for watersheds undergoing rapid development.
  - Existing water supply management master plans with timely integration of stormwater management features.
  - Existing natural resources mitigation plan.
  - Selected Comprehensive Plan elements.

  Recognizing the importance of achieving and documenting reduction of annual pollutant discharges to receiving waters, especially waterbodies on FDEP's Impaired Waters Lists, the County should also:
  - Begin working on a the basis of a water quality credits/ accounting system,
  - Track status of waterbodies (IWR) and work to provide water quality data to support delisting for erroneously listed waterbodies

- Participate in the Estero Bay Nutrient Consortium or similar partnerships in an effort to attain a Reasonable Assurance designation in lieu of a developing a TMDL.

❖ **Expanded Scope of Development Regulation and Review** - While regulation of stormwater management facilities is primarily the responsibility of SFWMD, there will come a point in the near future when it will benefit Lee County to assume the primary responsibility for regulation of stormwater discharges to the County's stormwater systems, and subsequently to its receiving waterbodies. It will also be beneficial for County staff to keep abreast of the current high levels of development and redevelopment.

Lee County will likely need to enhance its current regulations, review processes and enforcement procedures related to development and redevelopment activities to achieve the following benefits for residents and businesses, as well as the County's natural systems. Specific issues that are becoming critical with respect to stormwater management activities include:

- Controlling the increased peak flow rates and maximum volumetric discharges to the Lee County owned and operated stormwater management infrastructure due to new development and redevelopment. To manage the increased annual maintenance resulting from the impact of flooding, channel erosion and subsequent sediment deposition, Lee County should review current SFWMD and Lee County regulations for sufficiency and/or develop enhanced versions adequately addressing stormwater attenuation in new developments and areas of redevelopment.
- Controlling and/or reducing the annual pollutant loads generated on private property and subsequently discharged to County stormwater management systems. This activity could be accomplished by Lee County through either a new ordinance(s) or by SFWMD through rule enhancement and enforcement.
- Recognizing FDEP's current intention of developing a uniform Statewide Stormwater Rule that utilized local basin specific rules, it would be timely and advantageous for Lee County to support the new basin specific rules being developed for Southwest Florida.

Better treatment of stormwater on private property is critical in achieving pollutant load reductions. This may best be accomplished by requiring private property owners to better treat their stormwater and reduce their annual pollutant loads, prior to its discharge to County owned and operated stormwater management infrastructure.

Addressing the above issues using the associated actions provides the following benefits:

- ✓ Reduce annual pollutant loads discharged to local receiving waters;
- ✓ Reduce the County's obligation for constructing and operating treatment systems;
- ✓ Protect endangered and threatened aquatic species;
- ✓ Improve water quality within the County's lakes, ponds and streams;
- ✓ Avoid unnecessary impacts to the County's natural systems; and,

All of these actions will contribute to the quality of life that Lee County residents enjoy and, perhaps more importantly, will reduce the future costs of TMDL and NPDES compliance.

❖ **Permit Compliance and Reporting** - Current NPDES permit requirements, including - illicit discharge detection and elimination, sediment and erosion control inspections, public education and training, ultimately dovetail w/ pending TMDL requirements.

Enhanced Operations and Maintenance

FDEP has continuously advocated improving annual stormwater maintenance efforts to improve water quality throughout the state. In recent years, O&M activities have become a key performance measure that must be reported in the NPDES MS4 Annual Reports, and are carefully checked in annually scheduled MS4 Permit field inspections and audits. It is safe to say that Lee County will be required to expand current annual O&M activities to improve water quality in the community.

❖ Stormwater Infrastructure Maintenance

Lee County will need to plan, schedule and budget enhancements in the scope and frequency of its annual stormwater O&M activities in order to achieve the annual pollutant load reductions that will be required to reverse the degradation of Caloosahatchee River and estuary, Estero Bay, Charlotte Harbor , and many of their tributary streams. There is also the need to adequately maintain facilities to achieve design flood capacity. The following areas should be targeted for enhancement:

- County Maintained Channel Segments - While the existing LOS is assumed to be adequate, and the maintained channel segments normally look good from a windshield inspection perspective, Lee County should plan for, budget for and annually fund enhancements in terms of (1) expansion of the inventory of maintained segments due to growth, gaps in system and improved service level demands, and (2) implementation of changes in current means and methods used to maintain channels and ditches in order to achieve water quality compliance and reduce annual pollutant and sediment discharges. As a means of controlling annual O&M costs, it would also be beneficial for the County to carefully evaluate all segments in the current maintenance inventory, and consider dropping or reducing the maintenance priority on segments providing lesser flood control, water quality and natural systems benefits and adding those that do.

- Un-Maintained Channel Segments - While some of these channel segments are currently addressed on an as needed/periodic basis through the County's Neighborhood Improvement Program, the County will need to evaluate the potential flood control and water quality benefits that can be achieved by accepting/adding additional segments (that are currently not maintained) to the schedule maintenance inventory, particularly those canals and ditches that provide links, restore positive drainage, and are more regional in their nature.

- NATURAL CREEKS - Natural creeks are an essential component of Lee County's drainage system and need periodic maintenance in order to function properly. Lee County will need to dedicate funds for periodic cleaning and snagging operations to maintain reasonable storm flow capabilities and avoid creating localized flooding problems. It would be beneficial for the County to identify strategically located creek access points for conducting periodic proactive maintenance activities, and then undertake a program for acquiring easements or legal rights for creek access.

- CONSTRUCTED FILTER MARSHES - The County is currently involved in a proactive program of acquiring land and constructing filter marshes for Ten Mile Canal, Lakes Park (north section), Island Park and Briarcliff, and is also in the planning stage for Powell Creek, Daughtrey's Creek and Lakes Park (south section). These filter marshes are being implemented to provide cost effective water quality treatment benefits and facilitate TMDL and NPDES compliance. The new filter marshes are biological treatment facilities and will require continuing schedule maintenance in order to function properly and reduce pollutant loads. County staff will need to plan for this increased maintenance work, including adequate budget and funding.

- OTHER REGIONAL BMPS - There are an evolving number of BMPs that are intended to provide stormwater treatment at the regional level, versus the use of multiple on-site facilities. Examples of regional BMPs include sequenced treatment units and retention facilities, and a variety of proprietary technologies (Stormceptor's and Vortechnics vault technologies and Hydromentia's algal turf scrubbers) which may provide long-term cost effective approaches for complying with the County's pending TMDL obligations but require frequent/continuous maintenance. Lee County will need to carefully evaluate the numerous proprietary technologies to establish realistic pollutant removal values and accurately estimate real-world net costs (total cost per pound of pollutant removed) prior to any wide-scale implementation process.

❖ **Water Quality Monitoring** - Lee County will need to operate an on-going monitoring program to document ambient water quality in order to demonstrate that the County's stormwater management program activities are achieving water quality improvements and complying with the requirements of its NPDES permit.

- The existing ambient monitoring program will need to expand and become progressively more sophisticated, which will require expansion of the County's current automated data collection system, and the addition of real time flow and rain data collection capacity to support storm response, pollutant load calculations, and model calibration.

- Current ambient monitoring efforts will need to be expanded to provide capabilities in integrated storm event flow monitoring and water quality sampling to document storm event characteristics and establish the response and treatment efficiencies of BMPs, the filter marshes, street sweeping activities, and related pollution reduction efforts.

- Lee County must also assess the benefits of estuarine water quality monitoring programs - including resource performance measures and metrics for seagrasses, oysters, algae, fish or other biological indicators - in order to define the impacts of stormwater discharges in marine receiving waterbodies, address red tide/ red algae blooms, and assess other environmental problems.

❖ **Environmental Lab Services** - Stormwater management related laboratory analysis costs are currently costs absorbed in the laboratory operating budget. Lee County should evaluate the benefits of an analytical fee recovery/support system for stormwater the program (similar to LCU).

❖ **Administrative Support Positions** - The foreseeable enhancements in Lee County's stormwater management program will require additional staff capabilities for successful execution of the following activities:

- STORMWATER PROGRAM ADMINISTRATION - Implementation and operation of an enterprise based stormwater program which will require additional capabilities in fiscal planning, accounting, database maintenance and related administrative activities

- GRANTSMANSHIP - Operation of an effective grants acquisition program that is focused on SFWMD, EPA and FDEP grant programs will require capabilities in preparation of grant applications, coupled with the specialized capabilities in execution of agreements, administration of funds, project planning and management and supporting planning, accounting, database maintenance and related administrative activities

- CAPITAL PROJECTS ADMINISTRATION - Lee County is facing the need to design, permit, bid, award, construct, inspect and accept a significantly larger number of CIP projects than has historically been accomplished in the stormwater management program which will require additional administrative and support capabilities in purchasing and procurement, legal, planning and engineering, construction administration and inspection, and similar specialized functions.

ACCELERATED CIP PROJECTS

Achieving allocated TMDL pollutant load reduction goals and complying with the County's NPDES Permit requirement to reduce pollutant load to the "maximum extent practicable" will involve the siting, design, permitting and construction of a combination of channel improvements and treatment facilities. This accelerated program will require the following capital investments and program activities:

❖ **Land Acquisition** - The first step in most stormwater management projects is the acquisition of land for expansion of existing infrastructure system improvements and the construction of new facilities. Lee County will need to provide funding for purchase of easements and right-of-way, for floodplain management and protection, natural resource preservation/restoration and stormwater infrastructure construction and maintenance. The County should

continue to utilize C2020 purchases where applicable, and seek out other Federal, State and WMD funds when available to supplement County funds.

- **Flood Improvements** - Continuing past program focuses, Lee County will need to continue to construct stormwater infrastructure to eliminate and/or reduce flooding problems in the unincorporated county.
  - Typical projects include the new culverts and bridges for new road crossings, and larger bridges and culverts to replace existing to road crossings that either have insufficient conveyance capacity or have structural problems due to age or inappropriate design.
  - The County should continue to support the Neighborhood Improvement Program which has been successful (and is often the only means) in solving localized flooding problems in some areas.

- **Water Quality and Natural System Enhancements** - The third area of capital investment that Lee County will need to fund in order to achieve long-term water management goals revolves around water quality management and natural systems protection.
  - WATER CONSERVATION/SUPPLY PROJECT - As part of the overall stormwater management and natural systems protection effort required in Lee County, it will be necessary for the County to modify existing systems and construct new facilities intended to correct the hydrology and water balance in many natural systems and subsequently restoring and maintaining their historic function. Representative examples of these types of capital projects include hydroperiod restoration in Six Mile Cypress Slough, and weir construction to control water levels and downstream discharges in over-drained canals.
  - WATER QUALITY RETROFITS - Given the amount of the unincorporated county area developed prior to the advent of FDEP and SFWMD stormwater treatment requirements, the County will need to evaluate existing developments and construct BMPs to provide adequate treatment capacity in the urban areas of Lee County to meet TMDL annual pollutant load reduction goals
  - FILTER MARSH CONSTRUCTION - As a proactive community, Lee County's construction of engineered filter marsh systems is representative of a class of water quality treatment facilities that can accomplish targeted pollutant load reductions to meet TMDL pollutant load reduction goals and provide an off-set credit for public works projects' impact associated with new/expanded roads, public schools, governmental facilities and public utilities.
  - NATURAL RESOURCES MITIGATION PLAN IMPLEMENTATION - A number of capital projects will be required to implement components of the Plan which will, in turn, provide diverse benefits related to the restoration and protection of the natural systems that provide the high quality of life enjoyed by Lee County residents and visitors.
  - FLOW-WAY RESTORATION/ CREATION - Development in the unincorporated county has altered natural flow-ways which has degraded, and in some cases destroyed wetlands which subsequently has reduced the natural

levels of water quality treatment that occur in wetlands. The County should identify opportunities to restore natural flow-ways, prioritize these opportunities, and then implement restoration activities in the highest priority areas by working with developers and developing and funding capital projects. This strategy can improve natural levels of water quality treatment resulting in lowered systemwide costs for achieving long-term pollutant load reductions to meet TMDL pollutant load reduction goals.

4.2 Cost of Expanded Services

An estimate of the potential incremental cost of the expanded services, as well as the projected total cost of stormwater management services in future years, is required as the basis for analysis of comparative funding alternatives. Working with County staff, a planning level estimate of the potential cost of an expanded stormwater management services program was developed that included foreseeable annual operating costs and capital investments for the 10-year planning period 2006-2015.

Incremental Costs of Expanded Services

This cost estimate for near-future incremental costs for expanded services was developed in collaboration with County staff that provided a baseline current value for the staff resources required to accomplish additional maintenance activities, and a list of unfunded CIP projects. Maintenance staffing levels were programmed over a 10-year period and a preliminary program for capital investment was developed which considered sequential costs for land acquisition, design and permitting, and construction for CIP projects.

Annual costs were estimated using a 7% growth rate and a 3% inflation rate (based on discussions with County Staff), and then projecting the enhanced maintenance and capital investment costs over the 10-year planning period. Table 12 shows the results of these cost projections for the enhanced elements of the stormwater program.

Table 12
INCREMENTAL PROGRAM COST ESTIMATES
(Costs shown in thousands)

Year	Enhanced Operation	Enhanced Maintenance	Enhanced CIPs	Total Program Enhancements
2006	$133.17	$36.82	$5,495.57	$5,665.56
2007	146.77	66.00	5,490.16	5,702.93
2008	330.72	163.14	5,481.45	5,975.30
2009	364.49	272.67	5,481.45	6,118.61
2010	506.22	302.38	5,489.74	6,298.34
2011	557.91	380.44	5,398.79	6,337.13
2012	773.35	418.32	5,429.89	6,621.56
2013	852.31	508.69	5,453.45	6,814.45
2014	1,108.04	625.36	5,472.22	7,205.61
2015	1,221.17	829.01	4,737.31	6,787.48
10-Year Totals	**$5,994.15**	**$3,602.83**	**$53,930.01**	**$63,526.99**

PROJECTED TOTAL PROGRAM COSTS IN FUTURE YEARS

This near-future cost estimate was developed by evaluating the current (2004/2005) program budget, applying a uniform 7% growth rate and a 3% inflation rate (based on discussions with County Staff), and then projecting program costs over the 10-year planning period. Table 13 shows the results of these cost projections.

Table 13
PROGRAM COST ESTIMATES
(Costs shown in thousands)

	2006	2007	2008	2009	2010
NATURAL RESOURCES					
Existing Program	$2,568.66	$2,830.93	$3,119.96	$3,438.51	$3,789.58
Budgeted CIPs	$7,039.02	$6,743.82	$1,242.98	$2,307.29	$2,376.51
Program Enhancements	$133.17	$146.77	$330.72	$364.49	$506.22
Enhanced CIPs	$5,495.57	$5,490.16	$5,481.45	$5,481.45	$5,489.74
COMMUNITY DEVELOPMENT					
Existing Program	$949.57	$1,046.52	$1,153.37	$1,271.13	$1,400.91
Program Enhancements	$-	$-	$-	$-	$-
TRANSPORTATION - CANALS					
Existing Primary System O&M	$2,948.45	$3,249.48	$3,581.26	$3,946.90	$4,349.88
Enhanced Primary System O&M	$36.82	$66.00	$163.14	$272.67	$302.38
TRANSPORTATION - ROADWAY					
Existing Secondary System O&M	$4,842.96	$5,337.42	$5,882.38	$6,482.97	$7,144.88
Enhanced Secondary System O&M	$-	$-	$-	$-	$-
EXIST PROGRAM COST	**$18,348.66**	**$19,208.18**	**$14,979.94**	**$17,446.80**	**$19,061.76**
EXPANDED PROGRAM COST	**$24,014.22**	**$24,911.11**	**$20,955.25**	**$23,565.41**	**$25,360.11**
ENHANCEMENT COST	**$5,665.56**	**$5,702.93**	**$5,975.30**	**$6,118.61**	**$6,298.34**

	2011	2012	2013	2014	2015
NATURAL RESOURCES					
Existing Program	$4,176.50	$4,602.92	$5,072.88	$5,590.82	$6,161.64
Budgeted CIPs	$2,447.81	$2,521.24	$2,596.88	$2,674.79	$2,755.03
Program Enhancements	$557.91	$773.35	$852.31	$1,108.04	$1,221.17
Enhanced CIPs	$5,398.79	$5,429.89	$5,453.45	$5,472.22	$4,737.31
COMMUNITY DEVELOPMENT					
Existing Program	$1,543.94	$1,701.58	$1,875.31	$2,066.78	$2,277.80
Program Enhancements	$-	$-	$-	$-	$-
TRANSPORTATION - CANALS					
Existing Primary System O&M	$4,794.01	$5,283.47	$5,822.92	$6,417.44	$7,072.66
Enhanced Primary System O&M	$380.44	$418.32	$508.69	$625.36	$829.01
TRANSPORTATION - ROADWAY					
Existing Secondary System O&M	$7,874.37	$8,678.34	$9,564.40	$10,540.93	$11,617.15
Enhanced Secondary System O&M	$-	$-	$-	$-	$-
EXIST PROGRAM COST	**$20,836.62**	**$22,787.56**	**$24,932.38**	**$27,290.75**	**$29,884.28**
EXPANDED PROGRAM COST	**$27,173.76**	**$29,409.12**	**$31,746.84**	**$34,496.36**	**$36,671.76**
ENHANCEMENT COST	**$6,337.13**	**$6,621.56**	**$6,814.45**	**$7,205.61**	**$6,787.48**

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Section Five
ALTERNATIVE STORMWATER FUNDING SOURCES

5.1 STORMWATER REVENUE SOURCES

The funding sources and strategies available to Lee County for the stormwater management program are varied and include the following:

- General Fund Revenues
- Property Tax
- Dedicated Property Tax Increment
- Sales Tax
- Dedicated Sales Tax Increment
- Special Purpose Districts
- Homeowner and Condominium Owner Associations Fees
- Special Assessments
- Fees, Licenses and Permits
- Penalties and Fines
- Developer Contributions
- Impact Fees
- Fee-In-Lieu-Of Payments
- Stormwater Service Fees

Lee County could potentially use these funding sources singularly or in combinations to meet the needs of the existing and/or expanded stormwater management program.

POTENTIAL FUNDING SOURCES

The following paragraphs describe eleven identified potential funding sources, their advantages and disadvantages and indicate for which activity the funding sources are suited.

❖ General Fund

The General Fund comprises many revenue sources including: property tax, sales tax, state and federal revenue sharing, municipal state aid, franchise fees, fines/penalties, etc. The General Fund can be considered as a "bank" into which revenues are placed and from which many municipal services are funded. When considering the General Fund's capacity to effectively support the Community's stormwater management program, the discussion must focus upon the competition for funds as well as the fairness and equity of this option. When evaluated in this manner, the General Fund has several disadvantages.

- First, the funding demands for public safety (police, fire and EMS) decrease the General Fund's ability to support significant increases for the stormwater management program. The competition for funds

between priorities of other "essential services" often leave little available funding for a comprehensive stormwater management program.

- Second, when the fairness and equity of this revenue source are addressed, alternative funding sources could equate the benefits more equitably amongst parcel owners. These combinations make General Fund support difficult to substantiate as a total equitable or effective funding source for a stormwater management program.

Funding the stormwater management program through the General Fund with a diversified mix of property taxes, sales tax, fees and other revenue streams offers several advantages:

- The funds are the primary existing sources of revenue
- The billing system is already established
- There are minimal new implementation and administration costs
- The taxpayer's cost (bill) is tax deducible (property taxes)

Many communities have used a combination of General Fund support and stormwater utility fee support to bridge the transition from the General Fund to full enterprise funding of a stormwater management program. The period of this transition typically varies from one to five years. The advantage of this combination is that maintaining a partial General Fund contribution for stormwater management while initiating the user fee system greatly improves the ability to address problems in a comprehensive and immediate manner. Also, the overall cost impact on property owners is usually somewhat less if partial General Fund support is maintained (i.e., the stormwater utility fee is less) and when the revenue requirement for funding the stormwater management program is transferred to a new utility.

❖ Property Tax

Communities throughout the United States have historically used property tax revenues to solve chronic community flooding problems, and more recently have used property tax revenues to fund stormwater management program operations, regulatory compliance with NPDES Municipal Separate Storm Sewer System (MS4) Permit requirements, ongoing annual operations and maintenance activities, and stormwater quality management activities.

Benefits associated with property taxes include:

- Property tax revenues are stable and tend to increase annually due to community growth and increasing property values.
- Property tax revenues are bondable.

Disadvantages associated with property tax funding of stormwater programs include:

- Property taxes are oftentimes viewed as being inequitable because they are based on property values with no relationship to stormwater contribution from residents or non-residents, and there is a general lack of association between stormwater and ownership.

- Reliance upon non-dedicated property tax revenues has historically pitted the interests of stormwater management against all other governmental functions in the annual budget process, and has not typically produced reliable, stable, long-term funding with an adequate capacity to meet community stormwater management needs.
- Stormwater issues are seasonal, whereas police, fire and emergency response activities are continuing with daily press coverage, resulting in an elevation of their perceived funding needs relative to intermittent stormwater problems.

❖ Dedicated Property Tax Increments

Given the problems with relying on property tax revenues and the internal competition between governmental functions, a number of communities have adopted the use a property tax increment that is dedicated exclusively to specific stormwater management activities as a means of providing stable, long-term funding for stormwater program components.

The general method of achieving a dedicated property tax increment involves identifying system-wide deficiencies and problems, defining remedial projects and programs, analyzing the cost and benefits, and communicating the long-term program and benefits to the community. Adoption processes vary by community from a simple administrative action, to approval by the community's elected representatives, to a more challenging process of public referendum to initiate/expand a dedicated property tax increment

Benefits associated with a dedicated property tax increment include:

- Being a dedicated increment, the resulting revenues are exclusively available for specific stormwater management functions.
- Revenues are stable and tend to increase annually due to community growth and increasing property values.
- Revenues reliable and bondable.

Disadvantages associated with property tax funding of stormwater programs include:

- Use of the revenues has certain restrictions based upon the provisions upon which the millage increment was dedicated.
- Property taxes generally have no relationship to quality or volume of stormwater discharged by the property, and are oftentimes viewed as being inequitable.

❖ Sales Tax

Many communities throughout the United States have elected to use a portion of their sales tax proceeds to fund their stormwater management program and construct/repair infrastructure.

Benefits associated with a dedicated property tax increment include:

- Sales tax revenues are stable
- Sales tax revenues are bondable

Disadvantages associated with sales tax funding of stormwater programs include:

- Sales taxes are oftentimes viewed as being inequitable because they generally have no relationship to stormwater contribution.
- Sales tax revenues have not historically been sufficient to exclusively fund stormwater management activities in most communities
- Sales tax revenues vary annually with the economy and may experience annual short-falls
- Stormwater management functions must compete with numerous other governmental functions in the annual budget process
- Typically does not generate long-term funding with adequate capacity to meet community stormwater management needs
- Revenues can be generated from individuals not residing within the community (shoppers for adjacent communities, tourists, etc.) because sales taxes are applied (where not exempted) to all purchases from individuals, businesses and vendors within the community,

Disadvantages associated with property tax funding of stormwater programs include:

- The principal disadvantage is that the sales tax has no relationship to the stormwater contribution from residents or non-residents,
- Where referendums are required to initiate/expand the sales tax provisions, the cost and uncertainty associated with having to conduct a referendum
- Use of the revenues has certain restrictions based upon the provisions upon which the millage increment was dedicated.
- Property taxes generally have no relationship to quality or volume of stormwater discharged by the property, and are oftentimes viewed as being inequitable.

❖ Dedicated Sales Tax Increment

Dedicated use of a sales tax increment, versus allocating a portion of the general sales tax revenues, is a relatively recent approach for funding stormwater management activities. The general method of implementing a dedicated sales tax increment involves identifying system-wide deficiencies and problems, defining remedial projects and programs, analyzing the cost and benefits, and proposing a program (normally of a limited duration) to the community to add a fixed percentage to the existing sales taxes to fund specific stormwater services and capital projects that will long-term community benefits. Adoption processes vary by community from a simple administrative action, to approval by the community's elected

representatives, to a more challenging process of public referendum to initiate/expand a dedicated property tax increment

Given the problems associated with relying on receipt of a portion of general sales tax revenues and the internal competition between governmental functions, adoption of a sales tax increment that is dedicated exclusively to specific stormwater management activities can provide the following benefits:

- Being a dedicated increment, the resulting revenues are reliable and can only be utilized for specific stormwater management purposes.
- Revenues can be effectively used to fund portions of the community's stormwater management activities
- Sales tax revenues are generally stable
- Sales tax revenues, with certain constraints, can be used for debt service for bonds

Disadvantages associated with dedicated sales tax increment funding of stormwater programs include:

- Sales taxes are oftentimes viewed as being inequitable because they generally have no relationship to stormwater contribution.
- Sales tax revenues have not historically been sufficient to exclusively fund stormwater management activities in most communities
- Sales tax revenues vary annually with the economy and may experience annual short-falls
- Stormwater management functions must compete with numerous other governmental functions in the annual budget process

❖ Special Purpose Districts

Income from a special purpose district or special assessment district is generally dedicated to that district. The area that is designated as special, for whatever reason, would pay an additional tax or has an increased assessment. The justification for such levies is that many capital improvements enhance the value of adjacent land, thereby providing a potential benefit to property owners. The funds from the additional tax or assessment would be returned to that area and used for program administration, renewal/replacement, capital improvements, and water quality. For example, if stormwater management facilities are constructed to benefit a particular drainage basin/watershed within a city or county, that area would be designated as a special taxing district and an additional tax levy would be assigned to the residents of that area.

Disadvantages of this funding option are as follows:

- Districts include only a portion of the Community.
- Districts may not be capable of generating required revenues when needed.

- Revenues generated can only be spent within the district in which they are collected
- Allocation of the benefits (or costs) of the improvement to each property is a lengthy and cumbersome exercise that must be done for each assessment district.

Previous experience with special districts for large areas has shown that these districts do not generally work for funding stormwater management programs due to the limited area of the district and the limitations on use of these funds.

❖ Homeowner/Condominium Owner Association

The homeowner association and condominium owner association concepts are similar to the special assessment district in that a readily defined, relatively small area would receive an additional levy. The assessments are designed to meet the specific needs and desires of each association. This method is best used for residential parcels, but can also be used for commercial properties like industrial parks or multiple tenants in a shopping center.

Disadvantages of this funding option are as follows:

- It cannot be used to finance an entire stormwater management program.
- These associations often become defunct due to lack of interest or unwillingness of the boards of directors of these associations to collect assessments from their members to pay for their maintenance obligations.
- Because the level of service and the assessment will vary among associations, inconsistencies in protection and inequities of assessment can result.

Previous experience with attempting to use an assemblage of homeowner's associations and condominium associations as the basis for funding stormwater management activities for larger aggregate areas has shown that these associations generally do not work for providing consistent funding for stormwater management programs due to a combination of the difficulty in getting homeowners and condominium owners to pay increased assessments for stormwater services, the limited areal extent of these associations, and the narrow limitations placed upon use of these funds by association documents.

❖ Special Assessment Districts

Special assessments, typically in the form of municipal services taxing/benefits units, are a means of funding specialized activities that benefit a defined area(s) of the community. Special assessments are essentially a special purpose district that is operated by a municipality, without an independent governing board, to provide what might be a standard community service in other communities. This approach has been used in Florida to provide specific stormwater management services in subdivisions and condominium developments that were developed and

permitted in such a manner that the homeowner's association/condominium association is responsible for operating and maintaining the ,stormwater collection and/or treatment systems (and lacks the management, contracting or fiscal capabilities to perform their responsibilities). These districts are commonly based upon formal agreements with annual service costs billed to homeowners and condominium owners as a non-ad valorem assessment on their annual tax bill. Advantages of this funding strategy are as follows:

- Annual adjustments in costs are simplified by the legal agreement that created the special purpose district.
- Revenues are stable and are realized early in the fiscal year, allowing timely funding of capital construction activities.

Disadvantages of this funding option are as follows:

- Revenues generated can only be spent within the district in which they are collected for very narrowly prescribed services and have additional documentation and accountability requirements.
- Initial allocation of the benefits (or costs) of the provided services to each property can, in some cases, be a lengthy, contentious and cumbersome exercise.

Previous experience with municipal services taxing/benefits units has shown that once these units have been established they generally work well for supplemental funding for specified stormwater services.

❖ Fees, Licenses, and Permits

Funding from this source is generally limited to cover the cost of permit review, enforcement, and the inspection of construction. Since these income sources are very limited and cyclical, they are difficult to dedicate toward the other aspects of the stormwater management program (i.e., administration, operation/maintenance, and capital improvements).

❖ Penalties and Fines

Similar to permit fees, revenues from penalties and fines are limited and derived income is commonly placed in the General Fund. However, it may be more reasonable to use the fines to correct the violation and improve enforcement. This type of income should be used in conjunction with the other stormwater funding to finance the complete stormwater management program.

❖ Developer Contributions

The Community may elect to allocate charges to developers based upon their contribution to the community's stormwater management systems. Typically the developer is charged for conveyance of the development's discharged runoff from the development, through the community, to the receiving waterbody, but not for on-site stormwater treatment requirements imposed by the State/Water Management Districts. Alternately, the developer can construct conveyance, attenuation and treatment facilities on his property

that serve his development (and in some cases serves other properties) which are "contributed" to the community.

In order to assess this charge, the community normally conducts basin planning studies which identify sub-regional and regional facility requirements commensurate with these development trends. As a result of these investigations, the Community has a defensible basis for allocating charges to developers for the cumulative impact of their new developments. Developer contributions are predicated upon the prorated portion of the overall impact on the community's entire stormwater management system requirements. Developer contributions are normally collected prior to the completion of construction of the infrastructure improvements for the development.

❖ Impact Fees

In a similar strategy, Lee County could elect to allocate charges to individual parcel owners of newly developed property based upon the contribution of their individual parcel(s) to the stormwater management program requirements. As with developer contributions, the community normally conducts basin-level planning studies that identify new facilities and system-wide improvements that will be required to compensate for new development. Based upon these studies, the Community may elect to allocate charges/impact fees to the owners of newly developed property predicated upon their prorated portion of the overall impact on the community's entire stormwater management system requirements. Impact fees are normally collected after the parcel infrastructure improvements have been made and before the start of residential, commercial and/or industrial structures.

❖ Fee-In-Lieu-Of Payments

An alternative to requiring developers to construct stormwater management facilities on their own property is to require them to pay an initial "front-end" charge for the capital improvements needed to serve their development. Typically the fee-in-lieu-of payment is charged for the community's construction of larger localized or regional facilities to provide peak flow attenuation to reduce downstream flooding and/or provide off-site stormwater treatment in-lieu-of conventional on-site stormwater treatment requirements required by the State/Water Management Districts.

The charge would be representative of the development's contribution to the regional facility in the watershed. A fee-in-lieu-of is a technique to generate the funding needed for capital improvements in a watershed. The term is developed from the case in which the developer is required to construct infrastructure including stormwater systems. Since construction of small-scale systems may not always advisable, particularly because of the problems associated with the acceptance of the operation/maintenance costs, some communities find that a better choice is a fee paid to the County to construct a larger system. The fee is the developer's share of the regional facility. There are two general areas where a fee-in-lieu-of is appropriate.

- First, a fee-in-lieu-of is appropriate where there is a large marginal cost for constructing additional facilities. A developer may pay for a portion of the construction of a large regional detention facility in-lieu-of the construction of a detention facility for an individual development.
- The second area where a fee-in-lieu-of is appropriate is where the introduction of a sizable development creates the need for a new type of stormwater management system. For example, the stormwater problem may be adequately controlled within a watershed using drainage ditches and swales. However, with the introduction of a new development, a detention/retention facility may be required. In this case, the developer could elect to pay a fee-in-lieu-of for the construction of the facility.

The major advantages of the fee-in-lieu-of are that regional systems are promoted rather than small-scale individual systems.

- Use of larger stormwater management facilities to serve new development can provide more economical solutions because they have economies of scale and are easier to maintain than a series of smaller facilities.
- Retrofitting existing development using larger centralized facilities to improve drainage or provide water quality treatment prior to discharge to receiving waters can oftentimes provide more economical solutions due to their economies of scale and ease of maintenance.

The disadvantage is that the developer must wait until sufficient funding is available for the regional system and until the facility can be constructed unless he or she commits to building an interim system, which can be either removed or incorporated in the regional system. In developed portions of the County, which may have significant existing needs, there would be fewer new developments to contribute to the construction of large regional facilities. Nevertheless, the fee-in-lieu-of process can reasonably be associated with a stormwater utility in development/redevelopment portions of communities.

❖ Stormwater Service Fee

Using fees generated from a user charge system to fund stormwater management programs has achieved growing popularity in the United States since the mid-1970's, with over 360 communities having adopted ordinances and taken steps to implement the stormwater utility concept. The concept has been in use in Florida for over two decades, with 120+ stormwater utilities having been successfully implemented in large and small communities throughout the State.

The stormwater fee assigned to a stormwater utility customer is an equitable share of the cost of the stormwater management program based on the relative contribution to the stormwater problem, typically determined by the amount of runoff attributed to the property. The greater the runoff generated by the property, the greater the financial contribution required from the property's owner to solve the problem. The relative amount of

runoff is estimated by the actual amount of impervious area on the parcel. This approach provides for an equitable and fair distribution of the stormwater management program costs among its customers.

The stormwater service fee revenues can be used for all aspects of the stormwater management program, and can also be used to pay the debt service for a stormwater capital improvement program. A stormwater service fee is a more equitable funding mechanism than reliance on General Fund revenue and special districts, since charges assessed to each parcel of land are based upon usage of the drainage system rather than property value.

Because commercial properties generate much more runoff and stormwater pollution per square foot than single-family residential properties, commercial sites are charged a proportionately greater fee. A principal advantage associated with a stormwater service fee, is that tax-exempt properties (federal, state, school and other tax exempt buildings and installations) are assessed a service fee that reflects their relative stormwater contribution to the drainage system. Each tax-exempt parcel will be charged a stormwater service fee that is proportional to the stormwater discharge from their site. The method is identical to that used by other public utilities (electrical power, water and wastewater, solid waste and recycling) that send bills to tax-exempt properties in which the fee is charged based upon usage.

Advantages of a stormwater utility fee include:

- Dedicated funding for the Community's stormwater management program
- The stormwater utility service fee is similar to other utilities services already administered by the Community
- The service fee is equitable user fee based on runoff contribution rather than the property value
- The stormwater service fee has the ability to charge tax-exempt parcels for multiple stormwater management services
- A stable funding source for all stormwater activities

Disadvantages of a stormwater utility fee include:

- More complex to administer
- A need for parcel-by-parcel evaluation of impervious area coverages
- A need to create a new billing system and master account file
- The possibility of a new fee may not be well received

5.2 Comparison of Revenue Sources

Based on the discussion in the previous section, the various funding alternatives can be compared and evaluated for use in the Lee County. Table 14 (on the following page) lists each alternative and the stormwater management functions which can be addressed by the alternative.

Special taxing districts, homeowner associations and condominium owner associations can be used to finance maintenance and capital improvements. The disadvantages are:

- These districts and owners associations are typically applied to only a portion of the community;
- These districts and owners association may not be capable of generating the required revenue;
- Generated revenues can be spent only in the districts and owners association where collected and may not necessarily be where the funds are most needed; and,
- Fees are based on property value and not on impact to, or use of, the stormwater management system.

Subdivision exactions, fee-in-lieu-of payments, and betterment charges are all one-time payments for constructing new stormwater facilities. In theory these funding mechanisms cannot be used to correct existing drainage problems and cannot be used to construct improvements or provide maintenance of existing facilities. However, in practice it is often the case that the infrastructure improvements and operating and maintenance activities that are implemented to provide additional capacity for new development may also benefit existing activities.

Permits and fines are intended to cover only the cost of administration and enforcement and are not sufficient to fund either capital improvements or operation/maintenance programs.

THREE "BEST FIT" STRATEGIES

A comprehensive stormwater management program is a long-term process, one requiring vision, continuing comprehensive planning, long-term capital investment and a major commitment to operations and maintenance for constructed infrastructure. The environmental focus of the last two decades has also required communities to manage water quality, protect natural systems, integrate water supply objectives, and comply with a complex blend of Federal, State and regional regulations. Clearly, the selection of a stormwater revenue source(s) must consider their flexibility, capacity and reliability. The three "best fit" strategies, based on Lee County current and long-term needs, appear to be:

- Flat Rate Residential Structure Stormwater Utility Fee
- Multi-Tier Residential Rate Structure Stormwater Utility Fee
- Ad-Valorem Millage Reservation

Each of these strategies is discussed in detail in Section 6.

Table 14
ALTERNATIVE FUNDING SOURCES FOR STORMWATER MANAGEMENT ACTIVITIES

Stormwater Management Program Component							
Funding Source	Program Administration	Planning	Engineering and Design	Regulation and Enforcement	Operations and Maintenance	Capital Facilities Construction	Water Quality Management
General Fund	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Tax	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dedicated Property Tax Increment	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)
Sales Tax	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dedicated Sales Tax Increment	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)
Special Purpose Districts	Possibly	Possibly	Possibly		Yes	Yes	Possibly
Homeowner and Condominium Owner Associations Fees			Possibly		Yes	Yes	Possibly
Special Assessment District	Yes (If Specified)	Usually Not	Usually Not	Usually Not	Yes (If Specified)	Yes (If Specified)	Yes (If Specified)
Fees, Licenses and Permits	Yes	Yes	Yes	Yes			
Penalties and Fines	Yes			Usually Not			Yes
Developer Contributions	Possibly	Possibly	Possibly			Yes	Yes
Impact Fees	Possibly	Possibly	Possibly			Yes	Possibly
Fee-In-Lieu-of Payments	Possibly	Possibly	Possibly			Yes	Possibly
Stormwater Service Fees	Yes	Yes	Yes	Yes	Yes	Yes	Yes

5.3 STORMWATER SERVICE DELIVERY STRATEGIES

Communities throughout America have wrestled with balancing the cost/investment of infrastructure development with the demand for services and timing of projects. There is no easy solution for achieving this balance, but the following three services delivery strategies are commonly employed:

- Pay-As-You-Go Sinking Fund
- Bonds
- Developer Incentives

Lee County could potentially use these strategies singularly or in combinations to meet the long-term services delivery needs of the existing and/or expanded stormwater management program. The following paragraphs describe each of the three service delivery strategies, their advantages and disadvantages and indicate for which activity the strategies are suited.

❖ Pay-As-You-Go Sinking Fund

This type of stormwater funding is most commonly used as an adjunct to revenue bond financing. A fund is formed similar to a separate account and receives revenues from numerous sources (i.e., general fund or stormwater utility income). The fund accumulates revenue until sufficient money is available for an identified project. Then the total project amount is removed from the fund and the growth stage starts over. No money is borrowed so it is "pay-as-you-go" and, since funds are periodically deposited (sunk) into the account, it is referred to as a sinking fund.

❖ Bonds

General obligation, revenue, or special assessment bonds are normally used by governments to pay for large capital improvement programs, with payments for general obligation bonds commonly being made from the General Fund. Most often, the revenues from a special assessment district or a stormwater utility are used to meet the debt service payment for revenue bonds. The principal advantage of selling bonds is that a large-scale capital improvement program can be initiated when the facilities are needed rather than when the funds are accumulated. The disadvantage is the interest charges associated with the long-term debt incurred by the entity.

❖ Developer Incentives

Incentives could be offered to induce developers to use proper stormwater management planning techniques. For example, such incentives could include providing an incremental increase in maximum allowable residential densities for projects where the developer either:

- Dedicates a portion of the land in the development project to the Community for stormwater purposes (similar in concept to the dedication of school sites); or,
- Constructs additional flow attenuation and/or water quality treatment capacity in the development project's on-site stormwater

management facilities that the Community can effectively use to offset the community's need to construct additional capacity.

Even though the community might still need to construct stormwater facilities, this strategy provides the community with long-term benefits in terms of reducing overall land acquisition costs for new stormwater management facilities and/or reducing the amount of new water quality treatment capacity that will be required within the watershed.

The two major disadvantages of this method are:

- Developer incentives may be in direct conflict with the goals and objectives of the land use element of the Community's Comprehensive Plan; and,
- Developer incentives could potentially increase the magnitude of nonpoint source pollution problems due to the higher intensity of development.

Implementation of a pay-as-you-go sinking fund is a financing strategy that avoids public indebtedness, but normally prolongs the time required to complete a project. Revenue bonds are a financing tool that can provide a large infusion of funding for construction projects, which would take other financing alternatives several years to accumulate. The major disadvantage is the long-term commitment of annual revenues to pay for the debt service.

By contrast, developer incentives are typically a one-time payment strategy, which do not provide any form of long-term stable funding from any given projects. Given a stable economy and a steady development trend within a community, continuing development will produce a series of one-time payments that mimics a steady funding stream. The major disadvantage of developer incentives is that periodic periods of economic downturn can adversely impact the funding stream for major projects, causing unanticipated delays and protracted implementation periods.

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Section Six
COMPARISON OF PREFERRED ALTERNATIVES

6.1 FLAT RATE RESIDENTIAL STRUCTURE

A flat rate residential structure would assign a value of 1.0 ERU to all residential parcels, or multiples of 1.0 ERU, based on the number of dwelling units located on a parcel. Non-residential parcels would be evaluated individually based on each parcel's impervious cover, which is used to establish the number of ERUs that parcel represents. The underlying tenants of this stormwater utility structure applied using Lee County property characteristics are as follows:

- **ERU Definition**

  Data contained in the Lee County Property Appraiser's database was used to estimate the impervious areas associated with the "average" Single Family Residential home. An arithmetic value of 2,374 square feet was determined for the average SFR home in unincorporated Lee County it is based solely on the building area values. Other types of impervious areas like patios, pools, driveways and sidewalks are normally included in this computation, but this type of data is not available in Lee County.

- **Gross ERU Estimates**

  For the purpose of evaluating alternative rate structures, an estimate of the number of ERUs within the system is needed to establish ERU charge rates and revenue streams. In the flat rate residential approach, each dwelling unit is assigned a value of 1.0 ERU and non-residential parcels evaluated by dividing their impervious cover area by the value of an ERU (estimated at 2,374 square feet). Table 15 (on the following page) provides a summary of the ERUs computed using the June 2004 parcel data under the flat rate alternative and estimates a growth rate using data from the 1990 Study.

  The annualized ERU growth in Table 15 was used to extrapolate the expected number of ERUs within the County over a 10 year planning period of 2006 to 2015. Table 16 (on the following page) provides a summary of the estimated number of ERUs over the period 2006-2015.

Table 15
ERU GROWTH ESTIMATES

SWU Category	2004 Parcel Count	2004 Parcel Area	2004 ERUs	1990 ERUs	Annualized ERU Growth
SFR	84,145	44,050	84,145	45,871	4.43%
CONDO	33,955	6,369	33,955	32,421	0.33%
MHOME	16,370	6,574	16,370	11,025	2.86%
MFR	4,339	2,231	23,433	8,900	-0.10%
COM	2,157	13,429	214,373	23,600	1.18%
IND	902	3,369	48,835	7,900	-1.89%
INST	393	2,411	36,276	3,300	3.45%
GOV		4,855	73,939	37,491	4.97%
VACSFR	116,805	75,398	101,620	90,480	0.83%
VACCOM	2,724	4,215	15,974	NA	0.00%
VACIND	436	1,790	6,784	NA	0.00%
VACINST	9	24	91	NA	0.00%
TOTALS	**262,235**	**164,715**	**655,795**	**260,988**	

Table 16
GROSS COUNTYWIDE FLAT RATE ERU ESTIMATES

SWU Category	2006	2007	2008	2009	2010
SFR	91,763	95,828	100,072	104,504	109,132
CONDO	34,180	34,293	34,406	34,520	34,634
MHOME	17,321	17,817	18,327	18,852	19,392
MFR	23,387	23,364	23,341	23,318	23,295
COM	219,449	222,031	224,644	227,288	229,963
IND	47,008	46,120	45,249	44,394	43,555
INST	38,821	40,159	41,544	42,976	44,458
GOV	81,472	85,522	89,773	94,235	98,919
VACSFR	103,320	104,181	105,048	105,923	106,805
VACCOM	15,974	15,974	15,974	15,974	15,974
VACIND	6,784	6,784	6,784	6,784	6,784
VACINST	91	91	91	91	91
TOTALS	**679,569**	**692,163**	**705,252**	**718,859**	**733,003**

Table 16 (continued)
GROSS COUNTYWIDE FLAT RATE ERU ESTIMATES

SWU Category	2011	2012	2013	2014	2015
SFR	113,965	119,013	124,284	129,788	135,536
CONDO	34,749	34,864	34,979	35,095	35,211
MHOME	19,947	20,519	21,106	21,711	22,332
MFR	23,273	23,250	23,227	23,204	23,182
COM	232,670	235,408	238,178	240,981	243,817
IND	42,733	41,925	41,133	40,356	39,594
INST	45,991	47,577	49,217	50,914	52,669
GOV	103,835	108,997	114,414	120,101	126,071
VACSFR	107,695	108,592	109,496	110,408	111,328
VACCOM	15,974	15,974	15,974	15,974	15,974
VACIND	6,784	6,784	6,784	6,784	6,784
VACINST	91	91	91	91	91
TOTALS	**747,706**	**762,991**	**778,884**	**795,407**	**812,589**

❖ **Consideration of Unique Benefit Service Areas**

The 1990 *Stormwater Utility Feasibility Study* (CDM,) identified two benefit areas within the County that performed services which should be recognized by a utility, the East County Water Control District (ECWCD) and the Gateway Services District (GSD). The ECWCD was recognized as providing services for the canal systems (primary drainage system) within its service area, while the GSD was recognized as providing services for the right-of-way (secondary) drainage systems. Parcels located within these two benefit areas were already being assessed for these services, and the utility should recognize and provide credit to these parcels. This will affect the evaluation of the ERU billing rate needed to cover program operation costs and requires that an estimate of the number of ERUs by benefit area be developed. This was done by computing the 2004 ERUs for each benefit area and then applying the growth rates from Table 15. Table 17 provides a tally of the Flat Rate ERUs within each benefit area.

Table 17
FLAT RATE ERU ESTIMATES BY BENEFIT AREA

SWU Category	2006	2007	2008	2009	2010
EAST COUNTY WCD					
SFR	23,166	24,192	25,264	26,383	27,551
CONDO	2,031	2,038	2,045	2,052	2,058
MHOME	3,584	3,686	3,792	3,901	4,012
MFR	2,382	2,380	2,378	2,375	2,373
COM	25,762	26,065	26,372	26,682	26,996
IND	2,794	2,741	2,690	2,639	2,589
INST	5,692	5,889	6,092	6,302	6,519
GOV	5,788	6,076	6,378	6,695	7,028
VACSFR	85,585	86,298	87,016	87,741	88,472
VACCOM	2,747	2,747	2,747	2,747	2,747
VACIND	957	957	957	957	957
VACINST	3	3	3	3	3
Subtotal:	*160,491*	*163,072*	*165,732*	*168,475*	*171,305*
GATEWAY WCD					
SFR	2,101	2,195	2,292	2,393	2,499
CONDO	135	135	136	136	137
MHOME	0	0	0	0	0
MFR	398	398	397	397	397
COM	4,200	4,249	4,299	4,350	4,401
IND	558	548	537	527	517
INST	610	631	653	676	699
GOV	1,804	1,893	1,988	2,086	2,190
VACSFR	281	284	286	288	291
VACCOM	163	163	163	163	163
VACIND	0	0	0	0	0
VACINST	0	0	0	0	0
Subtotal:	*10,251*	*10,496*	*10,751*	*11,017*	*11,294*
UNINCORPORATED COUNTY					
SFR	66,496	69,441	72,516	75,728	79,082
CONDO	32,014	32,120	32,226	32,332	32,439
MHOME	13,737	14,131	14,535	14,952	15,380
MFR	20,607	20,586	20,566	20,546	20,526
COM	189,487	191,717	193,973	196,256	198,566
IND	43,656	42,831	42,022	41,228	40,449
INST	32,518	33,639	34,799	35,999	37,240
GOV	73,880	77,552	81,407	85,453	89,701
VACSFR	17,454	17,599	17,746	17,894	18,043
VACCOM	13,064	13,064	13,064	13,064	13,064
VACIND	5,827	5,827	5,827	5,827	5,827
VACINST	88	88	88	88	88
Subtotal:	*508,827*	*518,595*	*528,770*	*539,367*	*550,404*
TOTALS:	**679,569**	**692,163**	**705,252**	**718,859**	**733,003**

Table 17 (continued)
FLAT RATE ERU ESTIMATES BY BENEFIT AREA

SWU Category	2011	2012	2013	2014	2015
EAST COUNTY WCD					
SFR	28,771	30,046	31,376	32,766	34,217
CONDO	2,065	2,072	2,079	2,086	2,093
MHOME	4,127	4,245	4,367	4,492	4,621
MFR	2,371	2,368	2,366	2,364	2,361
COM	27,314	27,635	27,960	28,290	28,622
IND	2,540	2,492	2,445	2,399	2,353
INST	6,744	6,976	7,217	7,465	7,723
GOV	7,377	7,744	8,129	8,533	8,957
VACSFR	89,209	89,952	90,701	91,456	92,218
VACCOM	2,747	2,747	2,747	2,747	2,747
VACIND	957	957	957	957	957
VACINST	3	3	3	3	3
Subtotal:	*174,224*	*177,237*	*180,346*	*183,557*	*186,872*
GATEWAY WCD					
SFR	2,610	2,726	2,846	2,972	3,104
CONDO	137	138	138	138	139
MHOME	0	0	0	0	0
MFR	396	396	395	395	395
COM	4,453	4,505	4,558	4,612	4,666
IND	507	498	488	479	470
INST	723	748	774	800	828
GOV	2,299	2,413	2,533	2,659	2,791
VACSFR	293	296	298	301	303
VACCOM	163	163	163	163	163
VACIND	0	0	0	0	0
VACINST	0	0	0	0	0
Subtotal:	*11,582*	*11,882*	*12,194*	*12,520*	*12,859*
UNINCORPORATED COUNTY					
SFR	82,584	86,242	90,061	94,050	98,215
CONDO	32,547	32,654	32,762	32,871	32,979
MHOME	15,820	16,273	16,739	17,219	17,712
MFR	20,506	20,486	20,466	20,445	20,425
COM	200,903	203,267	205,659	208,080	210,529
IND	39,685	38,936	38,200	37,479	36,771
INST	38,524	39,852	41,227	42,648	44,118
GOV	94,159	98,839	103,752	108,909	114,323
VACSFR	18,193	18,345	18,497	18,651	18,807
VACCOM	13,064	13,064	13,064	13,064	13,064
VACIND	5,827	5,827	5,827	5,827	5,827
VACINST	88	88	88	88	88
Subtotal:	*561,900*	*573,873*	*586,343*	*599,331*	*612,858*
TOTALS:	**747,706**	**762,991**	**778,884**	**795,407**	**812,589**

❖ **Estimated ERU Charge**

Once the program costs and the number of ERUs have been projected, an estimate of the ERU billing rate needed to cover program costs can be developed by dividing the total 10-year costs by the total projected number of ERUs applicable to that cost over the same 10-year period. Table 18 (on the following page) provides a summary of these calculations.

❖ **Average Monthly Charge**

The resulting average flat rate residential charge for all services, exclusive of any off-sets, is $39.73 annually ($3.31 monthly). The estimated ERU Billing Rate to fund just the program enhancements is $8.70 annually ($0.73 per month) per ERU

Table 18
FLAT RATE ERU BILLING RATE ESTIMATES

Operating Year	Base Operating ERUs	Primary System O&M ERUs	Secondary System O&M ERUs	CIP ERUs
2006	679,569	519,078	669,318	679,569
2007	692,163	529,091	681,667	692,163
2008	705,252	539,521	694,501	705,252
2009	718,859	550,384	707,842	718,859
2010	733,003	561,698	721,709	733,003
2011	747,706	573,482	736,124	747,706
2012	762,991	585,755	751,110	762,991
2013	778,884	598,537	766,689	778,884
2014	795,407	611,851	782,887	795,407
2015	812,589	625,717	799,730	812,589
Total ERUs:	**7,426,423**	**5,695,113**	**7,311,577**	**7,426,423**
Expanded Program				
Total Program Costs (thousands):	$ 62,633.5	$ 51,069.3	$ 77,965.8	$ 86,635.4
Program Component Rate:	$ 8.43	$ 8.97	$ 10.66	$ 11.67
Enhancements Only				
Total Program Costs (thousands):	$ 5,994.1	$ 3,602.8	$ 0	$ 53,930.0
Program Component Rate:	$0.81	$0.63	$ 0	$7.26

6.2 MULTI-TIER RATE RESIDENTIAL STRUCTURE

A multi-tier residential rate structure requires much of the same effort as the single-tier structure, with the additional work of identifying the appropriate tiers for each of the residential categories. The greater the number of tiers within a category, the more equitable the distribution of costs, but this comes at the cost of added complexity and confusion.

❖ **ERU Definition**

The ERU definition for the Flat Rate ERU charges, an average residential structure area of 2,374 square feet, was based on the average of all residential structures. The ERU definition for the multi-tier approach was recalculated using only the single family residential class. The resulting value of 2,886 square feet was used for calculating the Multi-Tier Residential Rate ERU charges.

❖ **Gross ERU Estimates**

Implementation of a multi-tier residential flat rate structure begins with the same steps as used for the single-tier rate structure, but requires an additional step to establish the appropriate tiers for each of the residential categories (including vacant). The population characteristics for each of the residential categories are evaluated to identify potential tier levels and the defined ranges for each tier. For this assessment, only the SFR, CONDO and MHOME classes were considered in the establishment of multiple tiers.

Each residential parcel is assigned an ERU value depending upon the amount of impervious area which establishes the tier in which the parcel falls. Non-residential parcels evaluated by dividing their impervious cover area by the value of an ERU (estimated at 2,886 square feet based on the SFR class only). Table 19 summarizes the results of this estimation process

Table 19
MULTI-TIER ERU ESTIMATES

SWU Category	2004 Parcel Count	ERU Tier Rate	2004 Parcel Area (ac)	2004 ERUs
SFR - Q1	21,036	58%		12,201
SFR - Q2	42,073	100%		42,073
SFR - Q3	21,036	177%		37,234
CONDO - Q1	8,489	34%		974
CONDO - Q2	16,978	51%		4,417
CONDO - Q3	8,489	83%		5,821
MHOME - Q1	4,093	29%		340
MHOME - Q2	8,185	51%		2,144
MHOME - Q3	4,093	83%		2,836
MFR	4,339	51%		11,951
COM	2,157		13,429	176,341
IND	902		3,369	40,172
INST	393		2,411	29,840
GOV	218		4,855	60,822
VACSFR	116,805		75,398	101,620
VACCOM	2,724		4,215	15,974
VACIND	436		1,790	6,784
VACINST	9		24	91
TOTALS	**262,455**			**562,452**

The annualized ERU growth rates (previously summarized in Table 15) were used to extrapolate the expected number of ERUs within the County over a 10-year planning period of 2006 to 2015. Table 20 provides a summary of the countywide ERU estimates over this period.

Table 20
GROSS COUNTYWIDE MULTI-TIER ERU ESTIMATES

SWU Category	2006	2007	2008	2009	2010
SFR - Q1	13,306	13,895	14,510	15,153	15,824
SFR - Q2	45,882	47,914	50,036	52,253	54,567
SFR - Q3	40,605	42,403	44,281	46,242	48,290
CONDO - Q1	2,905	2,915	2,925	2,934	2,944
CONDO - Q2	8,716	8,745	8,774	8,803	8,832
CONDO - Q3	7,093	7,116	7,140	7,163	7,187
MHOME - Q1	1,256	1,292	1,329	1,367	1,406
MHOME - Q2	4,417	4,543	4,673	4,807	4,945
MHOME - Q3	3,595	3,697	3,803	3,912	4,024
MFR	11,927	11,916	11,904	11,892	11,881
COM	180,517	182,641	184,791	186,965	189,166
IND	38,668	37,938	37,221	36,518	35,828
INST	31,933	33,035	34,174	35,352	36,571
GOV	67,018	70,349	73,846	77,517	81,370
VACSFR	103,320	104,181	105,048	105,923	106,805
VACCOM	15,974	15,974	15,974	15,974	15,974
VACIND	6,784	6,784	6,784	6,784	6,784
VACINST	91	91	91	91	91
TOTALS	**584,006**	**595,429**	**607,304**	**619,650**	**632,488**

SWU Category	2011	2012	2013	2014	2015
SFR - Q1	16,525	17,257	18,021	18,819	19,653
SFR - Q2	56,983	59,507	62,143	64,895	67,769
SFR - Q3	50,429	52,663	54,995	57,431	59,974
CONDO - Q1	2,954	2,964	2,973	2,983	2,993
CONDO - Q2	8,861	8,891	8,920	8,949	8,979
CONDO - Q3	7,211	7,234	7,258	7,282	7,307
MHOME - Q1	1,446	1,488	1,530	1,574	1,619
MHOME - Q2	5,087	5,232	5,382	5,536	5,695
MHOME - Q3	4,140	4,258	4,380	4,505	4,635
MFR	11,869	11,857	11,846	11,834	11,823
COM	191,392	193,645	195,924	198,229	200,562
IND	35,151	34,487	33,836	33,197	32,570
INST	37,832	39,136	40,485	41,881	43,325
GOV	85,414	89,660	94,116	98,794	103,705
VACSFR	107,695	108,592	109,496	110,408	111,328
VACCOM	15,974	15,974	15,974	15,974	15,974
VACIND	6,784	6,784	6,784	6,784	6,784
VACINST	91	91	91	91	91
TOTALS	**645,837**	**659,718**	**674,154**	**689,168**	**704,784**

As in the case of the Flat Rate Residential ERU, the East County Water Control District (ECWCD) and the Gateway Services District (GSD) are recognized for providing a certain level of beneficial services. Parcels located within these two benefit areas were already being assessed for these services, and the utility recognizes and provides credit to these parcels. Table 21 provides a tally of the Flat Rate ERUs within each benefit area.

Table 21
MULTI-TIER ERU ESTIMATES BY BENEFIT AREA

SWU Category	2006	2007	2008	2009	2010
East County WCD					
SFR - Q1	3,359	3,508	3,663	3,826	3,995
SFR - Q2	11,584	12,097	12,632	13,192	13,776
SFR - Q3	10,252	10,706	11,180	11,675	12,192
CONDO - Q1	173	173	174	175	175
CONDO - Q2	518	520	521	523	525
CONDO - Q3	422	423	425	426	428
MHOME - Q1	260	267	275	283	291
MHOME - Q2	914	940	967	995	1,023
MHOME - Q3	744	765	787	810	833
MFR *	4,430	4,426	4,422	4,417	4,413
COM	21,191	21,441	21,693	21,948	22,207
IND	2,298	2,255	2,212	2,171	2,130
INST	4,682	4,844	5,011	5,184	5,362
GOV	4,762	4,998	5,247	5,507	5,781
VACSFR	85,585	86,298	87,016	87,741	88,472
VACCOM	2,747	2,747	2,747	2,747	2,747
VACIND	957	957	957	957	957
VACINST	3	3	3	3	3
Subtotal:	*154,881*	*157,368*	*159,933*	*162,579*	*165,309*

Table 21 (continued)
MULTI-TIER ERU ESTIMATES BY BENEFIT AREA

SWU Category	2006	2007	2008	2009	2010
Gateway WCD					
SFR - Q1	305	318	332	347	363
SFR - Q2	1,051	1,098	1,146	1,197	1,250
SFR - Q3	930	972	1,015	1,060	1,106
CONDO - Q1	12	12	12	12	12
CONDO - Q2	34	35	35	35	35
CONDO - Q3	28	29	29	29	29
MHOME - Q1	0	0	0	0	0
MHOME - Q2	0	0	0	0	0
MHOME - Q3	0	0	0	0	0
MFR *	307	307	307	306	306
COM	3,455	3,496	3,537	3,578	3,620
IND	459	450	442	434	425
INST	502	519	537	556	575
GOV	1,484	1,557	1,635	1,716	1,801
VACSFR	281	284	286	288	291
VACCOM	163	163	163	163	163
VACIND	0	0	0	0	0
VACINST	0	0	0	0	0
Subtotal:	*9,012*	*9,239*	*9,475*	*9,721*	*9,977*
Unincorporated County					
SFR - Q1	9,641	10,068	10,514	10,980	11,466
SFR - Q2	33,247	34,720	36,257	37,863	39,540
SFR - Q3	29,423	30,726	32,087	33,508	34,992
CONDO - Q1	2,721	2,730	2,739	2,748	2,757
CONDO - Q2	8,164	8,191	8,218	8,245	8,272
CONDO - Q3	6,642	6,664	6,686	6,708	6,731
MHOME - Q1	996	1,025	1,054	1,084	1,115
MHOME - Q2	3,503	3,603	3,706	3,812	3,922
MHOME - Q3	2,851	2,932	3,016	3,103	3,192
MFR *	7,190	7,183	7,175	7,168	7,161
COM	155,870	157,705	159,561	161,439	163,339
IND	35,911	35,232	34,567	33,914	33,273
INST	26,749	27,671	28,625	29,612	30,633
GOV	60,773	63,794	66,965	70,293	73,787
VACSFR	17,454	17,599	17,746	17,894	18,043
VACCOM	13,064	13,064	13,064	13,064	13,064
VACIND	5,827	5,827	5,827	5,827	5,827
VACINST	88	88	88	88	88
Subtotal:	*420,114*	*428,822*	*437,896*	*447,351*	*457,202*
TOTALS	**584,006**	**595,429**	**607,304**	**619,650**	**632,488**

Table 21 (continued)
MULTI-TIER ERU ESTIMATES BY BENEFIT AREA

SWU Category	2011	2012	2013	2014	2015
East County WCD					
SFR - Q1	4,172	4,357	4,550	4,751	4,962
SFR - Q2	14,386	15,024	15,689	16,384	17,109
SFR - Q3	12,732	13,296	13,885	14,500	15,142
CONDO - Q1	176	176	177	177	178
CONDO - Q2	527	528	530	532	534
CONDO - Q3	429	430	432	433	435
MHOME - Q1	299	308	317	326	335
MHOME - Q2	1,053	1,083	1,114	1,146	1,179
MHOME - Q3	857	881	906	932	959
MFR *	4,409	4,404	4,400	4,396	4,392
COM	22,468	22,733	23,000	23,271	23,545
IND	2,089	2,050	2,011	1,973	1,936
INST	5,547	5,739	5,936	6,141	6,353
GOV	6,069	6,370	6,687	7,019	7,368
VACSFR	89,209	89,952	90,701	91,456	92,218
VACCOM	2,747	2,747	2,747	2,747	2,747
VACIND	957	957	957	957	957
VACINST	3	3	3	3	3
Subtotal:	*168,127*	*171,037*	*174,041*	*177,144*	*180,349*
Gateway WCD					
SFR - Q1	379	395	413	431	450
SFR - Q2	1,306	1,363	1,424	1,487	1,553
SFR - Q3	1,155	1,207	1,260	1,316	1,374
CONDO - Q1	12	12	12	12	12
CONDO - Q2	35	35	35	35	35
CONDO - Q3	29	29	29	29	29
MHOME - Q1	0	0	0	0	0
MHOME - Q2	0	0	0	0	0
MHOME - Q3	0	0	0	0	0
MFR *	306	306	305	305	305
COM	3,663	3,706	3,750	3,794	3,839
IND	417	409	402	394	387
INST	595	615	636	658	681
GOV	1,891	1,985	2,084	2,187	2,296
VACSFR	293	296	298	301	303
VACCOM	163	163	163	163	163
VACIND	0	0	0	0	0
VACINST	0	0	0	0	0
Subtotal:	*10,244*	*10,521*	*10,811*	*11,113*	*11,427*

Table 21 (continued)
MULTI-TIER ERU ESTIMATES BY BENEFIT AREA

SWU Category	2011	2012	2013	2014	2015
Unincorporated County					
SFR - Q1	11,974	12,504	13,058	13,637	14,241
SFR - Q2	41,291	43,120	45,030	47,024	49,107
SFR - Q3	36,542	38,160	39,850	41,615	43,458
CONDO - Q1	2,766	2,775	2,785	2,794	2,803
CONDO - Q2	8,300	8,327	8,355	8,382	8,410
CONDO - Q3	6,753	6,775	6,798	6,820	6,843
MHOME - Q1	1,147	1,180	1,214	1,248	1,284
MHOME - Q2	4,034	4,149	4,268	4,390	4,516
MHOME - Q3	3,283	3,377	3,474	3,573	3,675
MFR *	7,154	7,147	7,140	7,133	7,126
COM	165,261	167,206	169,174	171,165	173,179
IND	32,645	32,028	31,423	30,830	30,247
INST	31,690	32,782	33,913	35,082	36,292
GOV	77,455	81,305	85,346	89,588	94,041
VACSFR	18,193	18,345	18,497	18,651	18,807
VACCOM	13,064	13,064	13,064	13,064	13,064
VACIND	5,827	5,827	5,827	5,827	5,827
VACINST	88	88	88	88	88
Subtotal:	*467,466*	*478,160*	*489,303*	*500,912*	*513,008*
TOTALS	**645,837**	**659,718**	**674,154**	**689,168**	**704,784**

❖ **Estimated ERU Charge**

Once the program costs and the number of ERUs have been determined, an estimate of the ERU billing rate needed to cover program costs can be developed by dividing the total 10-year costs by the number of ERUs applicable to that cost. Table 22 provides a summary of these calculations.

Table 22
MULTI-TIER ERU BILLING RATE ESTIMATES

Operating Year	Base Operating ERUs	Primary System O&M ERUs	Secondary System O&M ERUs	CIP ERUs
2006	584,006	429,126	574,994	584,006
2007	595,429	438,061	586,190	595,429
2008	607,304	447,371	597,829	607,304
2009	619,650	457,072	609,930	619,650
2010	632,488	467,179	622,511	632,488
2011	645,837	477,710	635,593	645,837
2012	659,718	488,682	649,197	659,718
2013	674,154	500,113	663,343	674,154
2014	689,168	512,024	678,055	689,168
2015	704,784	524,435	693,357	704,784
Total ERUs:	**6,412,538**	**4,741,773**	**6,310,999**	**6,412,538**
Expanded Program				
Total Program Costs (thousands):	$ 62,633.5	$ 51,069.3	$ 77,965.8	$ 86,635.4
Program Component Rate:	$9.77	$10.77	$12.35	$13.51
Enhancements Only				
Total Program Costs (thousands):	$ 5,994.1	$ 3,602.8	$ 0	$ 53,930.0
Program Component Rate:	$0.93	$0.76	$ 0	$8.41

❖ **Average Monthly Charge**

The resulting average multi-tier rate residential charge for all services, exclusive of any off-sets, is $ 46.40 annually ($ 3.87 monthly) per ERU. The estimated ERU Billing Rate to fund just the program enhancements is $10.10 annually ($0.84 per month) per ERU

6.3 AD-VALOREM MILLAGE RESERVATION STRUCTURE

Lee County has experienced a 26% increase in its tax base which, when combined with modest increases in annual operating costs, puts the County in the enviable position of being able to consider a reduction of the annual millage rate. However, the County is still facing the prospects of having to construct a number of regional water quality treatment systems in order to achieve the TMDL-related annual pollutant load reductions that will likely be mandated in its Municipal Separate Storm Sewer (MS4) permit.

The general concept of the ad-valorem millage reservation is based on the following simple precepts:

- Reserve a small portion of the millage that the County is currently considering returning to the tax payers to fund enhanced stormwater management activities to reduce current flooding problems and facilitate compliance with TMDL-related annual pollutant load reductions.
- Earmark the reserved millage for specific constraints that dedicate the millage for specific stormwater management and water quality treatment activities.
- If necessary, limit the period of the millage reservation to 10 years in order to enable the County to achieve significant results in the next decade.

In this manner, Lee County will be able to undertake a long-term stormwater services enhancement effort, confident of stable funding, without imposing any new taxes or fees.

❖ IMPLEMENTATION

Implementation of the ad-valorem millage reservation structure would require a relatively simple three-step process:

1. Estimate the cost of the expanded program services for stormwater management and water quality treatment each year over a 10-year planning period. These totals were estimated at $278.3 million for the enhanced program, including $63.5 million in enhancements as previously summarized in Table 2.
2. Calculate the equivalent millage rate by dividing the service costs by the projected taxable valuation and converting to a millage equivalence. These calculations are shown in Table 23.
3. Prepare and adopt an ordinance that reserves the estimated mills of the total Lee County millage rate for enhanced stormwater management and water quality treatment services for a minimum of 10 years.

Table 23
RESERVED MILLAGE ESTIMATES

Operating Year	Taxable Value (millions)	Enhanced Program (thousands)	Enhancement Only (thousands)	Enhanced Program Millage	Enhancement Only Millage
2006	$31,984	$24,014	$5,666	0.7508	0.1771
2007	$35,182	$24,911	$5,703	0.7081	0.1621
2008	$38,700	$20,955	$5,975	0.5415	0.1544
2009	$42,570	$23,565	$6,119	0.5536	0.1437
2010	$46,827	$25,360	$6,298	0.5416	0.1345
2011	$51,510	$27,174	$6,337	0.5275	0.1230
2012	$56,661	$29,409	$6,622	0.5190	0.1169
2013	$62,327	$31,747	$6,814	0.5094	0.1093
2014	$68,560	$34,496	$7,206	0.5032	0.1051
2015	$75,416	$36,672	$6,787	0.4863	0.0900
TOTALS	**$509,738**	**$278,304**	**$63,527**		
			AVERAGE MILLAGE RESERVATION:	**0.5460**	**0.1246**

❖ **Average Monthly Charge**

The resulting average residential charge under the ad-valorem millage rate reservation method for all services, exclusive of any off-sets, is $7.67 monthly which equates to $92.04 annually. The average residential charge needed to cover just program enhancements, exclusive of any off-sets, is $1.75 monthly which equates to $21.00 annually

Table 24
POTENTIAL REVENUES & AVERAGE PARCEL CHARGES
AD-VALOREM MILLAGE RESERVATION

Land Use	Enhanced Program (0.546 mills) Group Annual Revenue	Enhanced Program (0.546 mills) Average Monthly Service Charge	Enhancements Only (0.125 mills) Group Annual Revenue	Enhancements Only (0.125 mills) Average Monthly Service Charge
Single-Family Residential	$7,349,173	$7.67	$1,677,558	$1.75
Condominium Units	$2,563,855	$6.12	$585,238	$1.40
Mobile Home Units	$383,901	$2.20	$87,631	$0.50
MF Residential (<10 Units)	$183,022	$5.84	$41,778	$1.33
MF Residential (>10 Units)	$250,075	$359.30	$57,083	$82.02
Other Residential Uses	$52,918	$32.41	$12,079	$7.40
Commercial Parcels	$1,476,756	$60.65	$337,091	$13.84
Industrial Parcels	$378,681	$34.26	$86,440	$7.82
Institutional Parcels	$150,950	$10.06	$34,457	$2.30
Government Parcels	$9,623	$0.21	$2,197	$0.05
Vacant SFR Parcels	$2,389,216	$1.56	$545,374	$0.36
Vacant Commercial Parcels	$359,068	$10.67	$81,963	$2.44
Vacant Industrial Parcels	$46,198	$9.53	$10,545	$2.18
Vacant Institutional Parcels	$0	$0.00	$0	$0.00
Other Parcels	$281,371	$830.94	$64,227	$189.68

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MANAGEMENT & PLANNING COMMITTEE
AGENDA REQUEST FORM
COMMISSION DISTRICT #

PRESENTED BY: Wayne Daltry et al **REQUESTED BY:** BoCC
Smart Growth/TDC/NR

TITLE OF ITEM FOR AGENDA:
Lake Okeechobee update and Legislative Amendments

1. DESCRIPTION AND OBJECTIVE OF THE ISSUE
Lake Okeechobee issues have been requested to be a monthly briefing. An update will be provided, specifically noting the January 25th meeting of the Lake Okeechobee subcommittee of WRAC in Fort Myers.
In addition, the attachments are for a proposal amending Florida Statutes to afford the Caloosahatchee the same degree of protection of water quality as the rest of the Everglades system.
In November the BoCC directed staff and counsel to prepare a strategy for river recovery. This will be coming in February M and P, following counsel's briefing of the Board on January 31st. Howver, with the onset of the Legislative session, this item—which is already part of the Legislative package, without details, is being presented for information purposes and concurrence with the direction.

2. PROPOSED POLICY, PROCEDURE OR PLAN OF ACTION
Montly update as directed. Pursue legislative sponsor and support for amendments.

3. OPTIONS (List Advantages/Disadvantages of Each Option Listed)
N/A

4. FINANCIAL IMPACTS/FUNDING SOURCE
Part of Legislative package, no additional impacts.

5. STAFF RECOMMENDATION AND JUSTIFICATION FOR RECOMMENDATION
Support changes, to give greater protection through law to the watershed and estuary.

6. MANDATED? Y ☐ N x **BY WHAT AUTHORITY?**

DEPARTMENT DIRECTOR SIGNATURE	COUNTY MANAGER SIGNATURE	MEETING DATE	TIME REQUIRED
		1/6/06	5 min

LAKE OKEECHOBEE PROTECTION ACT AMENDMENTS

- **Expand and clarify the Section (1)(d) findings and intent**. Currently, the section states that restoring and protecting Lake Okeechobee and downstream receiving waters must be completed on a watershed-based approach. The current language says that this approach to address these issues must be developed and implemented immediately, yet there appears to be nothing in the Act itself regarding a plan to address the downstream receiving waters aspect. A section could be created in the Act to specifically address downstream receiving waters.

- **"Downstream receiving waters"**. This term should be defined in Section (2) of the Act. This definition would include the following areas: the Everglades, St. Lucie River/Estuary and Caloosahatchee River/Estuary. Providing all of these areas would increase support for the change.

- **Clarification on achieving water quality standards**. Section (3)(c)(3) states that regardless of work being done through the LOPP, these provisions do not "preclude the department of the district from requiring compliance with water quality standards or with current BMP requirements for the purpose of protecting water quality". The current language is vague and could be read to already provide for programs that are just not related to Lake Okeechobee water quality standards. This section could be amended to clarify that achievement of water quality standards is relative to both Lake Okeechobee and downstream receiving waters.

- **Reduce nutrient loading in downstream receiving waters.** Section (3)(c)(5) of the Act provides grant eligibility for projects that make use of private lands or lands held in trust for Indian Tribes to reduce nutrient loadings or concentrations "within a basin". With the current language, this section could be read to include basins outside of the Lake Okeechobee Watershed that aid in achieving compliance with water quality standards in downstream receiving waters. This section could be clarified to include downstream receiving waters.

- **Amend priority of LOPP to include downstream receiving waters.** Section (3)(g) clarifies that the priority of the LOPP is on programs and projects "that address phosphorous sources that have the highest relative contribution of phosphorous loading and the greatest potential for phosphorous reduction". This section could be clarified to include the Lake Okeechobee watershed and downstream receiving waters.

MEMORANDUM

TO: David Owen, County Attorney
Wayne Daltry, Director, Smart Growth Commission

FROM: John J. Fumero

DATE: 05/26/05

SUBJECT: Lake Okeechobee Protection Act – Summary and Analysis

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Introduction

This memorandum summarizes the Lake Okeechobee Protection Act and the status of the Lake Okeechobee Protection Program as it relates to downstream systems that receive Lake Okeechobee discharges. In addition, this memorandum addresses potential legislative changes to the Act.

This memorandum is divided into four sections:

- A summary of the Lake Okeechobee Protection Act/Program
- A status of the implementation of the program from the most recent briefings on the Act
- An analysis of application on the Act on the Caloosahatchee River and Estuary
- Potential legislative changes concerning downstream receiving waters impacts.

1. Summary of the Lake Okeechobee Protection Act

The Lake Okeechobee Protection Act ("LOPA"), Section 373.4595, Florida Statutes, establishes a Lake Okeechobee Protection Program to limit Phosphorous loading **to Lake Okeechobee** through various mechanisms such as Best Management Practices and implementing projects that **will reduce the amount of Phosphorous discharged to the Lake**. The Act concentrates on meeting the Total Maximum Daily Load ("TMDL") established for Lake Okeechobee and a 40 parts per billion Phosphorous standard for discharges to the Lake.

a. Lake Okeechobee watershed

A key attribute of the legislation is the concentration on improvement of the hydrology and water quality of Lake Okeechobee itself, although in the findings section, there is mention of downstream receiving waters and reduction of Phosphorous levels benefiting the ecology of those natural systems. In the definitions section, "Lake Okeechobee Watershed" **includes Lake Okeechobee and the area surrounding and tributary to Lake Okeechobee**.

b. Requirements of the Act

Priority Basins. The Act establishes a Lake Okeechobee Protection Program ("LOPP"). The program addresses the reduction of phosphorous loading to the Lake from internal and external sources. The program is implemented by the development of a Plan that is comprised of two phases **concentrating on reducing loads from the S-191, S-154 Basins and Pools D and E in the Lower Kissimmee River.**

Phase I of the LOPP. This phase includes designing and constructing the Grassy Island Ranch and New Palm Dairy stormwater treatment facilities; two of the isolated wetland restoration projects that are part of the Lake Okeechobee Water Retention/Phosphorous Removal Critical Project; a Lake Okeechobee Tributary Sediment Removal Pilot Project; and the Taylor Creek/Nubbin Slough Reservoir Assisted Stormwater Treatment Area, which is part of the Comprehensive Everglades Restoration Plan ("CERP"). In the bill that amended the LOPA this year, HB 155, the Lake Okeechobee Tributary Sediment Removal Pilot Project was struck from the projects that comprise this Phase 1 of the LOPP.

Phase 2 of the LOPP. This phase includes "additional facilities in the priority basins" including the S-191, S-154 Basins and Pools D and E in the Lower Kissimmee River. An implementation plan shall be developed for phase II including: Lake Okeechobee construction projects to achieve a design objective of 40 parts per billion (or TMDL allocation); identifying a construction schedule, designing the projects and providing a land acquisition schedule to implement these construction projects.

Evaluation. Later evaluations are required to review whether or not any further phosphorous load reductions are necessary **to achieve compliance with the Lake Okeechobee TMDL.**

Lake Okeechobee Watershed Phosphorous Control Program. The LOPP also includes a Lake Okeechobee Watershed Phosphorous Control Program by using existing regulations, best management practices ("BMPs") and improved BMPs, improvement and restoration of hydrological functions for areas contributing loads to the Lake, and alternative technologies. Wetland restoration on agricultural lands is also included in this program. Rule criteria are supposed to be developed that will establish conservation plans, nutrient management plans or other measures necessary **to reduce loads to the Lake**. This Phosphorous Control Program is to be initiated for basins contributing to Lake loading as well as the priority basins mentioned earlier (the S-191, S-154 Basins and Pools D and E in the Lower Kissimmee River).

Implementation of LOPP still requires water quality compliance. Section (3)(c)(3) states that regardless of work being done through the LOPP, these provisions do not "preclude the department or the district from requiring compliance with water quality standards or with current BMP requirements for the purpose of protecting water quality".

Grant eligibility. Section (3)(c)(5) of the Act provides grant eligibility for projects that make use of private lands or lands held in trust for Indian Tribes to reduce nutrient loadings or concentrations "within a basin" (not defined as to which basin) by one or more of the following methods:

- Restoring natural hydrology of the basin;
- Restoring wildlife habitat or impacted wetlands;
- Reducing peak flows after storm events;
- Increasing aquifer recharge; and
- Protecting range and timberland from conversion to development.

Public-private partnerships and projects in a rural area of critical economic concern designated by the Governor receive priority in this program. Grant applications can be submitted by any entity and examples of projects include:

- Purchase of conservation or flowage easements;
- Hydrologic restoration of wetlands;
- Creating treatment wetlands;
- Development of a management plan for natural resources; and
- Financial support to implement a management plan.

Other Requirements of the LOPP. The following are additional provisions of the LOPP:

- Projects reducing phosphorous from domestic wastewater systems;
- Programs dealing with wastewater residential sludge (and approval of funding sources);
- Auditing of the environmental protection disposal fee;
- Plans that limit applications of disposal of septage in the Lake Okeechobee watershed;
- Rule development on land application of animal manure;
- Changes in land use that effect discharges into works of the district;
- Alternative nutrient reduction technologies;
- Research and water quality monitoring that is specific to Lake Okeechobee; and
- Annual progress reports.

All of these requirements appear to be focused **on reduction of impacts on Lake Okeechobee**.

c. 2005 Legislative Session Amendments.

The most important amendments to LOPA this year include the removal of dates of when specific requirements are to be met. Additionally, Section (3)(g) was added that clarifies the joint responsibility of several coordinating agencies to implement the LOPP including the South Florida Water Management District and the Department of Environmental Protection. This section clarifies that the priority of the LOPP is on programs and

projects "that address phosphorous sources that have the highest relative contribution of phosphorous loading and the greatest potential for phosphorous reduction". The following factors are also considered:

- Need for regulatory compliance;
- Extent to which programs or projects are ready to proceed;
- Availability of federal matching funds or other non-state funding, including public-private partnerships.

This section does not state that these priorities and factors are related to the Lake Okeechobee watershed or previously listed priority basins, only programs and projects that have the highest contribution of phosphorous loading and greatest potential for reduction.

2. Status of the Lake Okeechobee Protection Program

Phase I Implementation. Phase I of the Lake Okeechobee Construction Project is intended to **cause immediate phosphorus load reductions to Lake Okeechobee,** consistent with the recommendations of the South Florida Ecosystem Restoration Working Group's Lake Okeechobee Action Plan. The status and performance of the projects that comprise Phase I are as follows:

Taylor Creek/Nubbin Slough Reservoir Assisted Stormwater Treatment Area. Plans and specifications were completed for the Taylor Creek (Grassy Island Ranch) Stormwater Treatment Area in December 2002 and for the Nubbin Slough (New Palm/Newcomer Dairy) STA in June 2003. As of the January 1, 2004, Annual Report, construction was expected to be completed by September 2004 for Taylor Creek and by September 2005 for Nubbin Slough.

Lake Okeechobee Water Retention/Phosphorus Removal Critical Project. The Byrd Isolated Wetland Critical Project was completed in June 2002. Two other sites being designed were suspended because the landowners were unable to continue participating. The remaining sites were suspended due to lack of funding in the Critical Project Program.

The monitoring of phosphorus concentrations is conducted at the inflows and at the outflow of the Byrd Isolated Wetland Critical Project. The storage of the first inch of runoff resulted in only two discharge events since the completion of construction, which demonstrates a significant reduction in phosphorus loads from this site.

According to the LOPA, a two-phased approach will be used to determine the effectiveness of BMPs. The first phase requires that FDEP use best professional judgment in making the initial determination of BMP effectiveness. An Interagency team worked with outside experts in this field on developing the initial BMP performance

estimates for all land uses. This level of verification provided the basis for coordinating agencies to immediately move forward in the implementation of BMPs.

The BMP second phase involves the South Florida Water Management District or the Department of Environmental Protection conducting water quality monitoring at representative sites to verify the effectiveness of BMPs. Monitoring during this phase will be conducted at a basin and sub-basin scale by the District though the Works of the District (WOD) program.

It appears that there has been no other project development in furtherance of implementing the LOPP.

3. Analysis of applicability of the Act to downstream receiving waters

Overall, the LOPA includes language in the findings and intent section on restoring and protecting Lake Okeechobee and downstream receiving waters. The intent language states that a "watershed-based" approach to address these issues must be developed and implemented immediately, but the focus of the Act itself is primarily on the Lake Okeechobee aspect.

While it appears that there is language included in various sections that is broad enough to potentially apply to downstream receiving waters such as the Caloosahatchee River and Estuary, changes to the Act are necessary to prioritize projects and establish agency mandates that would focus on the Caloosahatchee River, Estuary and Watershed.

4. Legislative changes on LOPA and changes to expedite establishment of TMDLs

a. Amending LOPA to make it more inclusive than Lake Okeechobee watershed

- Expand and clarify the Section (1)(d) findings and intent. Currently, the section states that restoring and protecting Lake Okeechobee and downstream receiving waters must be completed on a watershed-based approach. The current language says that this approach to address these issues must be developed and implemented immediately, yet there appears to be nothing in the Act itself regarding a plan to address the downstream receiving waters aspect. A whole section could be created in the Act to specifically address downstream receiving waters.

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b. Further legislative or rule amendments to expedite establishing TMDL for Calooshatchee River/Estuary

The Clean Water Act requires that the State of Florida promulgate rules establishing total maximum daily loads ("TMDLs") for those pollutants identified by the EPA as suitable for such calculation. 33 U.S.C. § 1313(d)(1)(c). TMDLs are established for a variety of water quality constituents, including Nitrogen and Phosphorous pursuant to Rule 62-304, Florida Administrative Code. The Department of Environmental Protection created a five-phase schedule for the development of TMDLs within the State of Florida.

Currently, the rule development schedule for the Caloosahatchee Basin is in the final steps of Phase 2 which is largely and information collection stage. DEP anticipates beginning rule development of the TMDL for the Caloosahatchee Basin before the end of 2005.

Finally, pollutant load reduction goals ("PLRGs") or basin-specific rules established as a part of the District's Water Management Plan pursuant to Rule 62-40.520, Florida Administrative Code, should be established to ensure that TMDLs are met once finalized.

Conclusion

Opportunities exist to seek additional legislative changes and expedite development of TMDLS, PLRGs or basin-specific rules for the Caloosahatchee River and Estuary.

LOPA, as currently worded, provides some limited opportunity to assert statutory requirements to address downstream Lake Okeechobee discharge impacts. However, it is recommended that the County consider development of amendments to LOPA. These amendments would be designed to strengthen and clarify a legislative mandate to address water quantity and quality impacts to downstream receiving water bodies and water sheds. TMDL development may likely be another important tool in assuring that the SFWMD address Caloosahatchee River and Estuary needs.

Please let me know if you need additional information or analysis.