

**RESOLUTION NO. R14-\_\_\_\_\_**

**A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA, ADOPTING THE STORMWATER MANAGEMENT SERVICES AND FACILITIES NON-AD VALOREM ASSESSMENT ROLL; PROVIDING FOR CERTIFICATION OF THE ROLL TO THE TAX COLLECTOR; AND PROVIDING FOR AN EFFECTIVE DATE.**

**RECITALS**

**WHEREAS**, on May 28, 2013, the Board of County Commissioners enacted an Ordinance amending chapter 18, article iv, division 3, Leon County Code of Laws, relating to the provision and funding of the *Stormwater Management Services and Facilities* to the *Stormwater Services Area*; and

**WHEREAS**, on May 28, 2013, the Board of County Commissioners adopted a *Stormwater Assessment Rate Resolution* levying and imposing upon each *Developed Property* located within the *Stormwater Services Area* a *Stormwater Assessment* in an amount found to be reasonably related to the cost of providing the *Stormwater Management Services and Facilities* to such property and thereby providing an equitably corresponding special benefit to such property; and

**WHEREAS**, pursuant to Section 197.3632, Florida Statutes, the Board of County Commissioners has reviewed the *Stormwater Assessment Roll* for conformity with the *Stormwater Assessment Rate Resolution*; and

**WHEREAS**, the Board wishes to approve and adopt the *Stormwater Assessment Roll* and to certify the roll for collection to the Tax Collector; and

**WHEREAS**, Leon County has provided notice of a public hearing at least twenty days prior to same by first class United States mail and by publication in the *Tallahassee Democrat* advising that a public hearing would take place;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of County Commissioners of Leon County, Florida, that:

**Section 1. Recitals.** The Recitals to this Resolution are incorporated herein and made a part hereon as if fully set forth below.

**Section 2. Definitions.** For purposes of this Resolution, the definitions contained in section 18-134.2, Leon County Code of Laws, are incorporated herein by reference.

**Section 3.** Pursuant to section 197.3632, Florida Statutes (2013), Leon County hereby approves and adopts the *Stormwater Assessment Roll*, attached hereto as Exhibit 2 and incorporated herein as if fully set forth below.

**Section 4.** The unit of measurement for the *Stormwater Assessment* shall be as set forth in Exhibit 1, the *Stormwater Assessment Rate Resolution*, which is attached hereto and incorporated herein as if fully set forth below, and the total amount of the *Stormwater Assessment* is \$3,805,424 for fiscal year 2014 and for each fiscal year thereafter, plus the amount of revenue derived from new development. The amount of the *Stormwater Assessment* imposed against each subject parcel of *Developed Property* is and shall be as further set forth in Exhibits 1 and 2. The *Stormwater Assessment* shall be and is hereby levied and imposed annually commencing October 1, 2013, and continuing each year thereafter until such time as changed or discontinued by the Board.

**Section 5.** The *Stormwater Assessment Roll* is hereby certified to the Tax Collector for collection in accordance with Florida law.

**Section 6.** This Resolution shall be effective upon adoption.

DONE AND ADOPTED by the Board of County Commissioners of Leon County,  
Florida, this 2<sup>nd</sup> day of September, 2014.

LEON COUNTY, FLORIDA

BY: \_\_\_\_\_  
Kristin Dozier, Chairman  
Board of County Commissioners

ATTEST:  
Bob Inzer, Clerk of the Court &  
Comptroller  
Leon County, Florida

BY: \_\_\_\_\_

Approved as to Form:  
Leon County Attorney's Office

BY: \_\_\_\_\_  
Herbert W.A. Thiele, Esq.  
County Attorney

RESOLUTION NO. R13-20**STORMWATER ASSESSMENT RATE RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS, RELATING TO THE PROVISION AND FUNDING OF THE STORMWATER MANAGEMENT SYSTEM.****RECITALS**

**WHEREAS**, the County desires to provide *Stormwater Management Services and Facilities* in the most efficient manner possible in order to promote the health, safety, and general welfare of its citizens; and

**WHEREAS**, a new and dedicated funding for implementation of the County's *Stormwater Management Plan* is needed to maintain compliance with state and federal requirements, and the levy of a *Stormwater Assessment* is determined to be the most equitable method of providing such funding; and

**WHEREAS**, those elements of the *Stormwater Management System* that provide for the collection, storage, treatment, and conveyance of *Stormwater* specially benefit all *Developed Property* within the unincorporated area of the County; and

**WHEREAS**, Florida law authorizes and encourages local governments to create stormwater management systems, provide stormwater management services and facilities, and adopt stormwater charges sufficient to plan, construct, operate and maintain its stormwater management system; and

**WHEREAS**, the cost of operating and maintaining the County *Stormwater Management System* and providing *Stormwater Management Services and Facilities* in accordance with existing permits and the funding of existing and future repairs, replacements, improvements, and extensions thereof should, to the extent practicable, be allocated in relationship to the benefits enjoyed and services received; and

**WHEREAS**, on May 28, 2013, the Board of County Commissioners enacted an Ordinance amending ch. 18, Leon County Code of Laws, relating to the provision and funding of the County *Stormwater Management System*.

**NOW, THEREFORE**, be it resolved by the Board of County Commissioners of Leon County, Florida, that:

**Section 1. Recitals.** The Recitals set forth above are deemed incorporated herein as is fully set forth below.

**Section 2. Authority.** This Resolution is adopted pursuant to the authority granted the County under Article 8, Section 1, Florida Constitution, ch. 125 and 403, Florida Statutes, the Leon County Charter, and other applicable provisions of law.

**Section 3. Definitions.** For purposes of this Resolution, the definitions contained in section 18-134.2, Leon County Code of Laws, are incorporated herein by reference.

**Section 4. Resolution.** This Resolution shall constitute the *Stormwater Assessment Rate Resolution* as described in section 18-134.4(b), Leon County Code of Laws.

**Section 5. Provision of Stormwater Management Services and Facilities.** The County intends to provide *Stormwater Management Services and Facilities* for the benefit of all parcels of *Developed Property* located within the *Stormwater Services Area* commencing October 1, 2013. All or a portion of the cost to provide such *Stormwater Management Services and Facilities* shall be funded from the proceeds of the *Stormwater Assessment*.

**Section 6. Legislative Determinations.** It is hereby ascertained, determined, and declared that each parcel of *Developed Property* subject to the *Stormwater*

*Assessment* located within the *Stormwater Services Area* shall be specially benefited by the provision of *Stormwater Management Services and Facilities*, in an amount and to a degree not less than the *Stormwater Assessment* imposed against such parcel of *Developed Property*, in that such *Stormwater Assessment* as computed in a manner as set forth in this Resolution, constitutes a fair and reasonable charge for the provision of *Stormwater Management Services and Facilities*. It is hereby further ascertained, determined, and declared that the cost of providing *Stormwater Management Services and Facilities* used to compute the *Stormwater Assessment* constitutes a reasonable estimation of the ten (10) year average annual cost of providing *Stormwater Management Services and Facilities* to all parcels of *Developed Property* within the *Stormwater Services Area*. Lastly, the *Stormwater Assessment* is based upon the Leon County, Florida, Stormwater Utility Update, Final Report, dated April 5, 2013 ( hereinafter “Rate Study”) which is hereby specifically approved and adopted as Exhibit A, same being attached hereto and incorporated herein as if fully set forth below.

**Section 7. Stormwater Assessment.** A *Stormwater Assessment* is hereby levied and imposed upon each parcel of *Developed Property* located within the *Stormwater Services Area* and which is hereby ascertained, determined, and declared to be reasonably related to the cost of providing *Stormwater Management Services and Facilities* and thereby provides an equitably corresponding special benefit to the *Developed Property*. The *Stormwater Assessment* is hereby ascertained, determined and declared to be based upon a reasonable estimation of a ten (10) year average annual cost of providing *Stormwater Management Services and Facilities* to such *Developed Property*. It is further ascertained, determined and declared that the *Stormwater Assessment* imposed hereby provides a special benefit to and is equitably apportioned among the *Developed*

*Properties* assessed based upon the special benefit assumptions and apportionment methodology set forth in the Rate Study, Exhibit A. The amount of the *Stormwater Assessment* levied and imposed upon each parcel of *Developed Property* in the *Stormwater Services Area* shall be determined according to the property use category and rate as set forth in Exhibit B, Rate Schedule, commencing October 1, 2013, annually until discontinued or changed by the Board.

**Section 8. Residential Credit.** The Board hereby provides a fifty percent (50%) residential credit to the *Stormwater Assessment* for County residents owning and residing on residential *Developed Property* who have been qualified with the *Property Appraiser* as either a Low Income Senior or Disabled Veteran in accordance with Florida law. Funds designated by the Board to adequately fund the residential credit shall be paid from funds other than those generated by the *Stormwater Assessment*. The residential credit shall be effective commencing October 1, 2013, and continue annually until discontinued by the Board.

**Section 9. Adjustment.**

(a) The Board hereby finds that retention of *Stormwater* meeting the standards set forth in sections 10-4.301(3)(b) or (5)(a)(i) and (5)(b), Leon County Code of Laws, would constitute a significant and measureable reduction in County provided *Stormwater Management Services and Facilities*, resulting in an adjustment to the *Stormwater Assessment* to reflect only those costs associated with engineering and permitting services of the *Stormwater Management Services and Facilities* provided. Therefore, the Board hereby creates a 75% adjustment to the *Stormwater Assessment* for the subject *Developed Property*. Upon approval of an application of the owner, a 75% reduction to the *Stormwater Assessment* will be applied to a *Developed Property*,

when a privately owned stormwater management facility serving the subject property has a valid operating permit issued by the County, for a private residential subdivision or an on-site stormwater management facility serving a non-residential property, meeting the requirements of Section 18-134.4(f)(2)a.(1), Leon County Code of Laws. The 75% adjustment will commence October 1, 2013 and will remain in effect so long as the subject property owner's operating permit remains valid, or until such time as discontinued by the Board.

- (b) The Board hereby finds that by demonstrating that *Stormwater* quality treatment and rate attenuation standards applicable at the time of approval of a County issued environmental permit have been met, would constitute a significant and measurable reduction in County provided *Stormwater Management Services and Facilities*. As a result, adjusting the *Stormwater Assessment* to reflect a portion of those costs associated with the *Stormwater Management Systems and Facilities* provided, would result in a 50% reduction in the *Stormwater Assessment*. Therefore, the Board hereby creates a 50% adjustment to the *Stormwater Assessment* for the subject *Developed Property*. Upon approval of an application of the owner, a 50% reduction to the *Stormwater Assessment* will be applied to a *Developed Property*, when a privately owned stormwater management facility serving the subject property has a valid operating permit issued by the County, for a private residential subdivision or an on-site stormwater management facility serving a non-residential property, meeting the requirements of Section 18-134.4(f)(2)a.(2), Leon County Code of Laws. The 50% adjustment will commence October 1, 2013 and will remain in effect so long as the subject property owner's operating permit remains valid, or until such time as discontinued by the Board.

(c) The Board hereby finds that by demonstrating that *Stormwater* rate attenuation standards applicable at the time of approval of a County issued environmental permit have been met, would constitute a significant and measurable reduction in County provided *Stormwater Management Services and Facilities*. As a result, adjusting the *Stormwater Assessment* to reflect a portion of those costs associated with the *Stormwater Management Systems and Facilities* provided would result in a 25% reduction in the *Stormwater Assessment*. Therefore, the Board hereby creates a 25% adjustment to the *Stormwater Assessment* for the subject *Developed Property*. Upon approval of an application of the owner, a 25% reduction to the *Stormwater Assessment* will be applied to a *Developed Property*, when a privately owned stormwater management facility serving the subject property has a valid operating permit issued by the County, for a private residential subdivision or an on-site stormwater management facility serving a non-residential property, meeting the requirements of Section 18-134.4(f)(2)a.(3), Leon County Code of Laws. The 25% adjustment will commence October 1, 2013 and will remain in effect so long as the subject property owner's operating permit remains valid, or until such time as discontinued by the Board.

(d) Upon approval of an application of the owner, a reduction to the *Stormwater Assessment* may be applied to the subject *Developed Property*, when the owner demonstrates by competent substantial evidence that alternative means or techniques have been utilized to accomplish the standards set forth in Section 18-134.4(f)(2)a.(1), Leon County Code of Laws.

**Section 10. Collection of the Stormwater Assessment.** The collection of the *Stormwater Assessment* shall be made pursuant to and in accordance with section 18-

134.5, Leon County Code of Laws and is authorized hereby, commencing October 1, 2013.

**Section 11. Effective Date.** This Resolution shall have effect upon adoption and shall apply to all parcels of *Developed Property* located within the unincorporated area of Leon County.

Done and adopted by the Board of County Commissioners of Leon County, Florida, this 28th day of May, 2013.



LEON COUNTY, FLORIDA  
BY: *Nicholas Maddox*  
NICHOLAS MADDOX, CHAIRMAN  
BOARD OF COUNTY COMMISSIONERS

ATTESTED BY:  
BOB INZER, CLERK OF THE COURT  
LEON COUNTY, FLORIDA

BY: *Bob Inzer*  
*for Bob Inzer*

APPROVED AS TO FORM:  
COUNTY ATTORNEY'S OFFICE  
LEON COUNTY, FLORIDA

BY: *Herbert W.A. Thiele*  
HERBERT W.A. THIELE, ESQ.  
DOP. COUNTY ATTORNEY

***FINAL REPORT***

**Leon County,  
Florida**

***Stormwater Utility  
Update***

*April 2013*

**CDM  
Smith**



1715 North Westshore Boulevard, Suite 875  
Tampa, Florida 33607  
tel: 813 281-2900  
fax: 813 288-8787

April 5, 2013

Ms. Theresa Heiker, P.E.  
Stormwater Management Coordinator  
Engineering Services Division  
Leon County Public Works Department  
2280 Miccosukee Road  
Tallahassee, Florida 32398

Subject: Stormwater Utility Update Final Report

Dear Ms. Heiker:

CDM Smith is pleased to submit the Stormwater Utility Update Final Report (5 copies). The final report incorporates final comments and decisions CDM Smith received from the County on March 8, 2013 and early April via e-mail. Highlights from the report are presented below.

**Level of Service Analysis**

CDM Smith worked with County staff to define program activities and expenditures for Service Areas presented in Figure 1. The assessed level-of-service (LOS) for each program element is highlighted in blue. In general, the County’s program is between a LOS C and LOS D. This assessment is based upon services currently being provided by the County and the associated funding of those services as compared to other Florida communities.

Level of Service	Engineering & Permitting Activities	Operation and Maintenance Program Activities	CIP Implementation Period
A	Comprehensive Planning + Full Implementation Capabilities + Exemplary NPDES Permit Compliance	Fully Preventative/ 100% Routine	10-year Plan
B	Pro-Active Planning + Systematic CIP Implementation Capabilities + Proactive Permit Compliance	Mixture of Routine and Inspection Based	20-year Plan
C	Priority Planning + Partial CIP Implementation Capabilities + Minimal NPDES Permit Compliance	Inspection Based Only	40-year Plan
D	Reactionary Planning + Minimal CIP Implementation Capabilities + Below Minimum NPDES Permit Compliance	Mainly Responsive (Complaint-based)	50-year Plan
F	No Planning + No CIP Implementation Capabilities + NPDES Non-Compliance	Less than full response to all complaints	100-year Plan

**Figure 1**  
**LOS Analysis of County Stormwater Program Elements**





Ms. Theresa Heiker, P.E.  
April 5, 2013  
Page 2

In order to maintain the current LOS being provided by the County, and the elimination of the transfer of general revenues to the stormwater utility fund, the updated stormwater utility would need to generate the revenue shown in Table 1. As an option, CDM Smith also considered at the request of the County an additional scenario to add \$2 million in annual revenue for capital improvements.

**Table 1**  
**Stormwater Program Costs**

Program Element	Budget	% of Total
Engineering & Permitting, and NPDES	\$1,350,000	26.2%
Operations & Maintenance	\$1,800,000	35.0%
Capital Improvement Program	\$2,000,000	38.8%
Total	\$5,150,000	100.0%

### Rate Structure Analysis

CDM Smith worked with County staff to define and evaluate various stormwater utility rate structure scenarios to generate the program costs. This included an

assessment of impervious area characteristics of parcels located in unincorporated Leon County and the selection of a "single family dwelling unit" (SFU) as the basis for assigning fees to parcel owners. Based on the input from County staff, the preferred rate structure includes tiered non-single family residential rates, non-residential rates based upon their equivalent number of SFU's and the allowance of a credit adjustment. The analysis considered the cost of service within the defined Urban Service Area (USA). Also, the analysis showed that the rate for the USA would be only slightly different than the non-USA area, which may not support the need for different service areas.

Based on the number of SFU's in the County, to generate \$5.15 million in annual stormwater program costs, the fee is estimated to be \$140 per SFU per year assuming a 95 percent collection. To fund the stormwater program costs using a graduated 5-year approach, the fee would start out at \$44 per year per SFU, and increase by \$24 per year per SFU for each of the next 4 years. After five years, the ultimate rate would be \$140 per year per SFU. These estimates are based on a 2 percent growth per year in revenue needs and a 1 percent growth per year (i.e., new construction) in revenues.

We appreciate working with the County on this very important project and look forward to future opportunities.

Sincerely,

  
Scott McClelland  
Vice President  
CDM Smith Inc.

cc: Brian Mack





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## Section 1

# Introduction

In October 2012, Leon County (the County) contracted with CDM Smith to prepare a Stormwater Utility Update Study (the 2012 Study). Procurement for these services was based upon the findings and recommendations from the Board of County Commissioner's Workshop on Stormwater and Solid Waste Non-Ad Valorem Assessments and Transportation Taxes held in February 2012. The original purpose of the 2012 Study was to identify the necessary funding to maintain adequate levels-of-service (LOS) for the County's stormwater management program and to determine the feasibility of eliminating the approximate \$2 to \$3 million subsidy from the County's general fund for stormwater services.

To accomplish this goal, CDM Smith prepared a LOS analysis of the County's stormwater programs (Section 2), performed a rate structure analysis (Sections 3 and 4), and developed subsidy elimination scenarios (Section 5). Also, as part of this work, CDM Smith developed a simple rate model using MS Excel ©, which has been provided to the County. This document summarizes the results and conclusions made for each of these tasks.

In order to compare the various rate structure options considered in Sections 3 and 4, the 2011 Stormwater Utility Survey (2011 Survey) prepared by the Florida Stormwater Association (FSA) was used. This survey included 81 respondents, of which 71 were cities and 10 were counties.



## Section 2

### Level of Service

#### 2.1 Stormwater Levels of Service (LOS)

For the purposes of this evaluation, stormwater management services for the County have been organized into four categories as described below:

- **Engineering & Permitting Services (EPS)** – this area of service provides for the management and planning of the stormwater assets for the County. Included are program administration, planning, development review, total maximum daily load (TMDL) Engineering & Permitting, enforcement and monitoring. Also, this includes the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit (FLS000033) compliance activities that are not otherwise accounted for in the other categories.
- **Operation and Maintenance Services (O&M)** – these services include the maintenance of the stormwater assets of the County including mowing, cleaning, litter control, and minor repair.
- **Capital Improvement Program (CIP)** – this includes major construction of new stormwater assets for the County. Projects are generally identified annually in the 5-year CIP program.

In an ideal world with unlimited funding, stormwater management activities would be completed at the highest level. This would result in routinely maintaining all systems, constructing facilities to control every storm, planning for all watersheds to ultimate build out, and performing award winning NPDES compliance. In reality, such funding is not available and thus, services must be provided at a reasonable level that balances services desired by the public with the limited funding available. This level of service (LOS) varies depending on the desires of the community and the issues that need to be addressed.

In order to define the stormwater services provided by the County to its citizens, this study will compare stormwater services provided by the County to a set of standards. The term “LOS” is used in this study to describe the magnitude of beneficial results gained by the community and the environment from the County’s stormwater program. A higher LOS will result in better flood control and protection, better control of erosion and sedimentation, and better water quality and stream habitat. This LOS concept is useful for assessing each of the four major stormwater program areas that have been described previously (Engineering & Permitting which includes NPDES Compliance, Operation and Maintenance, and Capital Improvements).

For the purposes of this study, different LOS have been defined and assigned standard letter grades, with “A” being the highest and “F” being the lowest. These standard definitions facilitate evaluation of the LOS currently being provided by the County’s stormwater program, and allow consideration of alternative LOS, with their associated benefits and costs. A LOS “F” is considered to be below the minimum regulatory requirements and expectations of the community.



• Level of Service

A matrix has been developed to assist in understanding the different LOS as they relate to the four major program areas (**Figure 2-1**). Within this matrix, the first column contains the LOS letter grade identification ranging from “A” to “F.” Subsequent column headings are provided for the four program areas, and each box within the matrix contains a brief description of the key elements required to achieve the given LOS for each program area. Later in this section, the County’s current stormwater program is assigned a letter grade for each program area based on these LOS definitions. CDM Smith also evaluated the current cost of stormwater services as compared to other communities.

Level of Service	Engineering & Permitting Activities	Operation and Maintenance Program Activities	CIP Implementation Period
A	Comprehensive Planning + Full Implementation Capabilities + Exemplary NPDES Permit Compliance	Fully Preventative/ 100% Routine	10-year Plan
B	Pro-Active Planning + Systematic CIP Implementation Capabilities + Proactive NPDES Permit Compliance	Mixture of Routine and Inspection Based	20-year Plan
C	Priority Planning + Partial CIP Implementation Capabilities + Minimal NPDES Permit Compliance	Inspection Based Only	40-year Plan
D	Reactionary Planning + Minimal CIP Implementation Capabilities + Below Minimum NPDES Permit Compliance	Mostly Responsive (Complaint-based)	50-year Plan
F	No Planning + No CIP Implementation Capabilities + NPDES Non-compliance	Less than full response to all complaints	100-year Plan

**Figure 2-1 Leon County, Florida Stormwater Utility Update**

**2.1.1 Engineering & Permitting Level of Service Descriptions**

A high LOS related to Engineering & Permitting provides benefits to the community and environment through the following means:

- Comprehensive planning of stormwater management activities and practices increases the opportunity to implement recommendations prior to development or redevelopment occurring, thus decreasing the costs and improving the effectiveness of these best management practices.
- A proper staffing level of County personnel to oversee and manage other program areas (i.e., operation and maintenance and capital improvements) improves the cost-effectiveness and efficiency of these program areas.
- A proper staffing level of County personnel to monitor and enforce stormwater rules and regulations increases the level of compliance by the regulated community, better protecting the community and environment from unlawful activities.
- Full compliance with all state and federal regulatory programs allows the County to qualify and gain higher priority for potential funding opportunities when they are available to the County, and avoids potential fines and/or environmental damage that may result from non-compliance. The data and information gained from monitoring activities required by these programs allows the County to make better decisions as to where to apply resources to gain the most benefit and as to the effectiveness of past and ongoing activities in achieving desired benefits.



To a large degree, the LOS of the Engineering & Permitting area depends upon the corresponding LOS of the other two major program areas, operation and maintenance and capital improvements. This is because County staff members are required to oversee and manage these other program areas to ensure their cost-effectiveness and efficiency.

However, there are other elements within the Engineering & Permitting area that are not related to O&M or capital improvements. These include enforcement of County development and environmental regulations (e.g., plan review and inspections for soil and erosion control and floodplain regulation, and inspections of stormwater facilities controlling existing development). Other activities that would fall under the Engineering & Permitting category include public information and education about stormwater-related issues, and other supporting functions such as information management, finance, billing, and administration.

The County was first issued its NPDES MS4 permit by the Florida Department of Environmental Protection (FDEP) in 1997 (Permit No. FLS000033). The permit was reissued in 2003 and again on November 1, 2011. Under this permit, the County is required to accomplish and report on various stormwater management activities. Currently, these activities are managed and funded under engineering and permitting services. Compliance is measured by the State using annual reports prepared by the permittee documenting all of the permit related activities accomplished during the permit year.

The various LOS for Engineering & Permitting are described below:

- **LOS A:** Watershed planning completed or scheduled dealing with existing and future stormwater problems (drainage and water quality); complete inventory of stormwater system in a geographic information system (GIS) database. Includes exemplary and/potentially award winning compliance with State and Federal NPDES permit requirements.
- **LOS B:** Increased planning for the watershed considering not only existing problems but also future problems that may be caused by growth; partial stormwater system inventory and sufficient management to administer the program and complete limited CIP projects. Provides proactive NPDES compliance with permit conditions and represents activities that are better than simply a minimal compliance with the letter of the permit, no substantive comments or requests from the annual report review and associated FDEP inspection.
- **LOS C:** Partial planning of watershed, limited stormwater system inventory and some ability to manage capital improvement projects; planning focused on dealing with major or significant existing problems. Middle-of-the-road and minimal accepted LOS with adequate compliance with NPDES permit conditions, some comments received during the annual review, but no major compliance issues are received from FDEP.
- **LOS D:** Poor management characterized by minimal or no planning; some ability to perform project management for capital projects; poor inventory of stormwater system and limited staff to administer the program. Not complying with NPDES permit conditions, characterized by substantive comments on the annual report and during the annual inspection.
- **LOS F:** No management or planning, no system inventory, and no ability to accomplish CIP projects or planning. Non-compliance with major NPDES permit conditions, with the permittee subject to potential fines from the state for noncompliance.



### 2.1.2 Operation and Maintenance Level of Service Descriptions

A high LOS related to operation and maintenance provides benefits to the community and environment through the following means:

- The useful life of the County's stormwater infrastructure is extended through proper operation and routine maintenance of these assets. This results in cost savings by delaying the need for major rehabilitation or replacement of these assets
- Cleaning of swales, catch basins, culverts, and ditches maintains the hydraulic capacity of these items, thus decreasing the frequency of flooding that may occur upstream of and in the vicinity of these areas.
- Regular removal of trash, debris, sediment, and excess vegetation from the stormwater system improves water quality of streams and downstream waterways as well as the aesthetic value of these areas to the community. Regular street sweeping and greenway maintenance achieves similar benefits.

The LOS for O&M are described below:

- **LOS A:** Highest O&M service level that is fully preventative – all maintenance is completed routinely, addressing every stormwater facility once or more each year.
- **LOS B:** Mixture of routine and inspection based maintenance. Critical structures are routinely maintained, both periodically during each year and possibly before each storm event, and non-critical structures are maintained based on inspection.
- **LOS C:** Inspection based maintenance whereby all structures are routinely inspected by management and maintenance is scheduled according to the inspection.
- **LOS D:** Complaint-based maintenance – all maintenance is done based on citizen complaints; generally characterized by work order based activities resulting from citizen call in complaints.
- **LOS F:** Less than complaint-based maintenance, with limited or no ability to even respond to complaints.

Once achieved, a LOS "A" may be less costly than lower LOS because it should reduce the frequency of high-cost capital expenditures such as repairs to failed facilities, unscheduled labor overtime, and high administrative costs. The challenge, however, is that the transition from a lower LOS to a LOS "A" cannot be achieved immediately.

### 2.1.3 Capital Improvements Level of Service Descriptions

A high LOS related to capital improvements provides benefits to the community and environment through the following means:

- Construction of stormwater system conveyance improvements reduces flooding in known problem areas, thus better protecting public and private property from flood damage.
- Protection and/or improvement of existing lakes, ponds, and wetlands supports downstream water quality objectives by providing treatment of stormwater runoff entering these waters.



- Acquiring and preserving stream buffers and other environmentally sensitive areas provides water quality improvement, increased habitat opportunities, and improved aesthetic value of the surrounding environment.
- Restoration and/or stabilization of streams and other areas subject to erosion reduces sediment transport, thus decreasing the need for downstream maintenance and improving downstream habitat.

Alternate LOS associated with capital improvements primarily distinguishes between the level of funding and rate of implementation for identified capital improvement needs. LOS "F" through "A" were assumed to correspond to an implementation period of 100 years to 10 years, respectively. The implementation schedule for capital improvements under any of these LOS could be accelerated through the issuance of revenue debt, with annual stormwater utility fees servicing the debt. It should be noted, however, that deferred implementation of some capital improvements would likely increase the costs of the required improvements, thus further delaying the schedule for full implementation.

## 2.2 Description of Current County Stormwater Program

### 2.2.1 Engineering Services Division

The goal of the Engineering Services Division "is to provide the public with professional services for the construction and maintenance of cost-effective infrastructure to enhance the community's quality of life". Within the Engineering Services Division are four full time employees dedicated to the County's stormwater management program. There are other staff within the Engineering Services Division that dedicate a portion of their time to stormwater management services. The appropriation of stormwater related costs is discussed later in this document. In general, the stormwater services provided by the Engineering Services Division include:

#### **In-house Design Services**

For small CIP projects, the Engineering Services Division provides in-house design services.

#### **Project Management Services for CIP**

For stormwater CIP projects, the Engineering Services Division provides project management services. This includes oversight of the technical aspects of the project during both design and construction.

#### **Review of Development Plans**

The Engineering Service Division is also periodically asked to review the stormwater elements of development plans submitted to the County. The review includes the associated stormwater management systems intended to meet local, state, and federal requirements. Support is also provided on wetland planting plans or review of environmental impacts.

#### **Inspections of New Construction Sites**

In addition to review of development plans, the Engineering Services Division is responsible for construction inspection activities that include enforcing erosion and sediment best management practices for County construction projects.

#### **Stormwater Engineering & Permitting and Planning**

These activities primarily focus on staff time associated with the continued management and planning of the County's stormwater services. Increased Engineering & Permitting services may be needed to



address the regulatory changes affecting how the County manages new mandates related to improved water quality. The County also represents County interests with the BluePrint 2000 program.

### **Stormwater Master Planning**

Under the direction of the Engineering Services Division, a stormwater master plan was completed in 1995 for the County's Primary Stormwater Management System (PSMS). Since the completion of the study, the County has been implementing CIP projects to address identified problem areas as funding becomes available. In recent years, funding of CIP projects has been accomplished with grant monies and other sources. No CIP funding has come from the existing stormwater utility.

### **CIP Program**

On an annual basis, the County updates and prioritizes its CIP needs and then implements the project as funding becomes available. CIP prioritization is based upon previous master planning efforts and flooding complaints from the community. Priority has been given to flood complaint based projects. As a result of aging infrastructure, it is expected that the CIP needs will increase, and thus will require additional funding. Currently, the existing stormwater utility is not used for funding of the County's CIP program. Since 2003, the County has averaged approximately \$4.6 million in expenditures in its stormwater CIP.

### **Grant Funding Pursuits**

The Engineering Services Department look for opportunities for grant funding of stormwater related services. The most recent example is grant monies secured as a result of Tropical Storm Faye to mitigate flooding problems that occurred as a result of the storm.

### **Total Maximum Daily Load (TMDL) Engineering & Permitting**

The TMDL program requires governments to reduce pollutant loads to impaired waters as identified by the Florida Department of Environmental Protection (FDEP) and/or the Environmental Protection Agency (EPA). As a result of TMDL regulations, the County may be required to reduce pollutant loads leaving its stormwater system into waters of the United States. The County has a list of waters deemed impaired by FDEP and the EPA. It is expected that the County will have to look at opportunities to reduce nutrients in several of the basins.

### **NPDES MS4 Compliance & Reporting**

The County has been meeting the requirements for their NPDES MS4 since first being issued (Permit No. FLS000033). In 2011, FDEP has renewed the permit, which requires the County to expand their stormwater program moving forward. Under the new permit, the County is now responsible for several new/enhanced activities. These activities will require additional funding to be compliant with the permit conditions.

### **Stormwater Utility Program**

The Engineering Services Division is responsible for the administration of the Stormwater Utility Program.

## **2.2.2 Operation Services Division**

Following a reorganization effort in 2008, the Operation Services Division of Public Works became responsible for the following services areas:

- Transportation Maintenance;



- Right-of-Way Management; and,
- Stormwater Maintenance.

Each of these three functions involves O&M services for stormwater management systems as described in the paragraphs below.

### **Transportation Maintenance**

The goal of the Division of Operations Transportation Program is to “provide for the safety, comfort, and convenience of the public by creating, maintaining, and managing infrastructure and programs supporting transportation, roadside beautification, and stormwater maintenance”. Activities related to stormwater management provided under transportation maintenance services include dirt road grading, stabilization and ditch maintenance.

Based upon Tallahassee Leon County GIS street segment data, there are 1,365 lane-miles that are currently being maintained by the Operations Services Division. Approximately, 51 percent of these roads are located within the Urban Service Area (USA). The County also estimated that 628 of the 1,365 lane-miles (46 percent) have a greater functional designation than “local road”. For these roads, the expenses associated with transportation and stormwater O&M activities should be shared between transportation and stormwater funding sources. Sharing of these costs is common practices throughout Florida municipalities.

For the unpaved roads, the County provides grading services, including the adjacent roadside ditches on an approximate 14 day cycle. The County has 2 excavation crews available for this purpose. Additionally, the County maintains approximately 107 lane-miles within the City of Tallahassee limits. Approximately 46 percent of the lane-miles within the City limits are served by curb and gutter and closed systems (pipes) for stormwater management. The remainder is served by open systems (e.g. swales).

### **Right-of-Way Management**

The goal of the Division of Operations Right-of-Way Management is to “provide for the safety, comfort, and convenience of the public by managing programs that support transportation, roadside beautification, and stormwater maintenance”. Activities related to stormwater management under Right-of-Way management include:

- Mowing in landscape areas of County rights-of-way; and,
- Maintenance of vegetation in County maintained stormwater facilities.

The County mows approximately 500 miles of road Right-of-Way, five times each year (2,500 miles of roadway mowing annually). In addition, the County maintains approximately 42 acres of landscaped areas 11 times each year. The County expects more landscaped stormwater facilities in the future as a result of increased interests in green infrastructure for water quality improvement, and therefore, the demand for O&M services will increase.

### **Operations – Stormwater Maintenance**

The goal of the Division of Operations Stormwater Maintenance Program is to “provide for the safety, comfort, and convenience of the public by creating, maintaining, and managing infrastructure and



programs supporting transportation, roadside beautification, and stormwater maintenance”. Activities related to stormwater management under Stormwater Maintenance include:

- Maintaining open and closed County owned drainage systems;
- Protect citizens from stormwater runoff (flooding);
- Provide silt removal from open and closed stormwater systems;
- Provide erosion protection through sod and hydromulch of ditches;
- Respond to stormwater issues identified by citizens;
- Construction and/or repair of stormwater structures (i.e., swale ditch blocks, inlets, etc.);
- Conduct routine maintenance to stormwater ponds and ditches (i.e., mowing, fence repair, etc.);
- Remove silt from County owned ponds and replace stormwater filter systems;
- Provide pond stabilization for erosion protection; and,
- Conduct inspections of stormwater ponds and conveyance systems for permit compliance.

As indicated above, the majority of stormwater services are provided by the Division of Operations under Stormwater Maintenance. It should be noted that approximately 75 percent of stormwater services are complaint based. The County maintains approximately 300 stormwater ponds. All but 10 of the stormwater ponds are “dry” ponds and require mowing. Mowing of the County-owned ponds is inspection-based and not complaint-based. Aquatic weed control is provided as necessary.

The County provides operation and maintenance services for approximately 60 miles of ditches, broken into 60 maintenance segments. Approximately 25 percent of the segments receive O&M annually. Pond maintenance also includes debris removal and mowing of the banks of Lake Henrietta. Two County crews are used to provide approximately 150,000 linear feet of ditch maintenance annually (28 miles per year). A third crew was eliminated during the last reorganization of the Operations Division.

## 2.3 Current County Stormwater Program Funding Summary

Based upon review of the Fiscal Year 2012/2013 Annual Budget Five-Year Financial Plan (Budget Document), and the information provided by the Leon County Office of Management and Budget, CDM Smith compiled a stormwater service funding and appropriation table (**See Table 2-1**). As can be seen from the table, the average budget for stormwater services for Fiscal Year 2011 through Fiscal Year 2013 is approximately \$4.8 million. Of the \$4.8 million, approximately \$1 million comes from the non-ad valorem assessment (stormwater utility fees), \$1.2 million from the Transportation Trust Fund, \$2.5 million from the non-countywide fund, and the balance from miscellaneous sources. To account for the funding to pay for related stormwater and engineering services, funds are transferred between stormwater and transportation funds. It is important to note that both of these funds are supported by General Revenue. \$1.2 million in transportation funds are transferred to the stormwater program to fund the maintenance of stormwater systems associated with roadways. The County’s engineering services, including stormwater engineering costs, are accounted for in the Transportation Trust Fund. \$1.6 million in revenue from the Stormwater Fund is paid back to the Transportation Trust Fund to pay for related engineering and operating services. Additionally, it is the goal of the County to

**Table 2-1  
Leon County, Florida  
Stormwater Utility Update - Stormwater Management and Operations Budgets and Costs  
As Shown in the Leon County Annual Budget, 5-Year Financial Plan and CIP, FY12/13**

Non Ad-valorem Assessment	\$1,006,742	\$1,021,250	\$1,004,150	\$1,010,714
City Permit Water Atlas	\$18,750	\$25,000	\$0	\$14,583
Pooled Interest Allocation	\$37,644	\$35,625	\$44,745	\$39,338
Other Sources	\$137,245	\$0	\$0	\$45,748
Transfer from 106 (Transp. Trust)	\$1,179,177	\$1,248,251	\$1,072,112	\$1,166,513
Transfer from 126 (non- countywide)	\$1,890,951	\$2,618,647	\$2,985,242	\$2,498,280
Miscellaneous	\$0	\$290,000	\$0	\$96,667
	\$4,270,508	\$5,238,773	\$5,106,249	\$4,871,843
<b>Stormwater Maintenance<sup>1</sup></b>	<b>\$2,241,834</b>	<b>\$2,774,701</b>	<b>\$2,748,500</b>	<b>\$2,588,345</b>
MIS Automation - Stormwater	\$626	\$568	\$500	\$565
Stormwater Utility Risk	\$35,769	\$32,231	\$19,644	\$29,215
Indirect Costs - Stormwater	\$549,016	\$619,399	\$425,552	\$531,322
Tax Collector	\$20,849	\$17,910	\$18,447	\$19,069
Water Quality & TMDL Sampling	\$37,500	\$59,940	\$0	\$32,480
Transfers to Account 106	\$1,067,204	\$1,699,024	\$1,886,104	\$1,550,777
Budgeted Reserves - Stormwater	\$0	\$35,000	\$35,000	\$23,333
	\$3,952,798	\$5,238,773	\$5,133,747	\$4,775,106



eliminate the transfer of the approximate \$2.5 million of Non-Countywide funds with revenue generated from the updated stormwater utility rate structure.

The County expends \$4.8 million for various stormwater related activities. Approximately \$2.6 million is spent on stormwater O&M, \$1.6 million is transferred back for engineering services, and the remaining \$600,000 is spent on various other stormwater functions located in the stormwater fund.

It is a common practice for other County stormwater programs in Florida to fund the O&M for major roads using transportation funds. Consistent with this practice, in future years, the County has identified \$800,000 in the Transportation Trust Fund for stormwater O&M on major roads. The County estimated this cost using the assumption that 46% of County roads are classified as greater than "local" and that 67% of O&M budget (\$2.6 million) is spent on roadway stormwater maintenance ( $\$2.6 \text{ million} \times 67\% \times 46\% = \$800,000$ ). As a result, the stormwater utility will only need to fund \$1.8 million for stormwater facility and conveyance O&M and not the full \$2.6 million (\$2,600,000 - \$800,000). Therefore, the actual funds that will be appropriated from the stormwater utility fund will be \$3.15 million.

Historically, the County has spent an average of \$4.6 million on its CIP program (FY2003 - FY2012). The majority of the dollars were secured from revenue sources other than what is generated by the County's current stormwater assessment fee. Moving forward, the County anticipates using approximately \$2.0 million for its stormwater CIP program as a minimum amount. This is based upon the last 10 years of stormwater CIP appropriations from the County's CIP program, Gas Tax, and Local Options Sales Tax. A summary of the historical CIP expenditures by fund is presented in **Table 2-2**.

Based on a review of the existing County stormwater program by CDM Smith, discussions with county staff, and the LOS definitions provided previously, the following LOS ratings are provided for the current County stormwater program.

### **2.3.1 Current Engineering & Permitting LOS**

The County's currently provides a LOS C for Engineering & Permitting. While the County completed a stormwater master plan in 1995, it has not been updated nor have basin plans related to water quality protection been completed. Also, the County continues to inventory of stormwater facilities.

### **2.3.2 Current NPDES Compliance LOS**

Based on this assessment of the compliance activities for the County, the existing program has achieved adequate compliance so would be designated a LOS C. The County does additional stormwater monitoring above what is required for permit compliance.

### **2.3.3 Current Operation and Maintenance LOS**

The existing O&M LOS is primarily complaint based. There are limited inspection based O&M practices related to pond mowing. Based upon the LOS criteria previously defined in Figure 2-1, the current LOS provided by the County is D. This LOS rating is indicative of resource limitations and not effort.

### **2.3.4 Current Capital Improvements LOS**

The current LOS provided by the County related to capital improvements associated with stormwater management is LOS D+. Projects are completed based upon need and fiscal resources. It should be noted that the currently, the stormwater utility does not fund the County's stormwater CIP.

**Table 2-2  
Leon County, Florida  
Stormwater Utility Update - Capital Expenditures and Source of Funding**

Grants - 125	\$0	\$508,671	\$21,391	\$0	\$1,641,670	\$110,057	\$200,000	\$308,021	\$1,097,013	\$2,086,385	\$597,321
Capital Improvements Fund - 305	\$509,975	\$1,361,643	\$1,388,050	\$2,021,548	\$1,838,855	\$615,355	\$1,350,106	\$2,171,559	\$2,098,912	\$2,306,180	\$1,566,218
Transportation Fund - 306	\$0	\$1,863	\$9,722	\$294,483	\$35,616	\$32,677	\$37,486	\$80,172	\$199,875	\$49,759	\$74,165
Sales Tax Fund - 308	\$10,914	\$161,000	\$118,891	\$326,234	\$0	\$0	\$0	\$0	\$0	\$0	\$61,704
Sales Tax Extension Fund - 309	\$71,778	\$2,753	\$937,510	\$6,857,166	\$1,185,613	\$1,997,770	\$1,796,482	\$1,812,261	\$653,984	\$2,593,600	\$1,790,892
Bond Series - 318	\$1,474,768	\$2,733,623	\$581,544	\$261,867	\$37,382	\$0	\$0	\$0	\$0	\$0	\$508,918
<b>Totals</b>	<b>\$2,067,435</b>	<b>\$4,769,553</b>	<b>\$3,057,108</b>	<b>\$9,761,298</b>	<b>\$4,739,136</b>	<b>\$2,755,859</b>	<b>\$3,384,074</b>	<b>\$4,372,013</b>	<b>\$4,049,784</b>	<b>\$7,035,924</b>	<b>\$4,599,218</b>

Capital Improvements Fund - 305	\$1,566,218
Transportation Fund - 306	\$74,165
Sales Tax Fund - 308	\$61,704
<b>Totals</b>	<b>\$1,702,088</b>



• Level of Service

Figure 2-2 illustrates the current LOS for the County based on this assessment. Overall, the County is assessed as being between a C and D+ for the LOS.

Level of Service	Engineering & Permitting Activities	Operation and Maintenance Program Activities	CIP Implementation Period
A	Comprehensive Planning + Full Implementation Capabilities + Exemplary NPDES Permit Compliance	Fully Preventative/ 100% Routine	10-year Plan
B	Pro-Active Planning + Systematic CIP Implementation Capabilities + Proactive NPDES Permit Compliance	Mixture of Routine and Inspection Based	20-year Plan
C	Priority Planning + Partial CIP Implementation Capabilities + Minimal NPDES Permit Compliance	Inspection Based Only	40-year Plan
D	Reactionary Planning + Minimal CIP Implementation Capabilities + Below Minimum NPDES Permit Compliance	Mainly Responsive(Complaint-based)	50-year Plan
F	No Planning + No CIP Implementation Capabilities + NPDES Non-compliance	Less than full response to all complaints	100-year Plan

Figure 2-2 Leon County, Florida Stormwater Utility Update

## 2.4 Existing Program Cost Comparison

CDM Smith used a “top-down” approach to establish a base line for varying levels of service. This approach uses standard unit costs to estimate the total program cost. Typically, costs are related to population (i.e., cost per capita) or to road or lane mile, with the latter tending to relate best to O&M costs and the former relating to total and Engineering & Permitting costs. Table 2-3 shows the results for a number of communities in Florida and other states for which population, funding, road miles and level of service were available. Based on these data, the top-down costs for the different LOS above the current LOS for the County was estimated.

Table 2-3 Leon County, Florida Stormwater Utility Update LOS Costs

Population Based Level of Service (EPS, O&M, CIP)	Average	Minimum	Maximum
A	\$61	\$59	\$63
B	\$44	\$27	\$60
C	\$25	\$17	\$43
D	\$21	\$12	\$28
Lane Mile Based Level of Service (O&M only)	Average	Minimum	Maximum
A	\$12,201	\$6,550	\$17,852
B	\$8,044	\$3,148	\$11,104
C	\$6,079	\$2,698	\$10,090
D	\$2,442	\$1,216	\$3,216

As previously shown in Table 2-1, the County spends approximately \$3.95 million on its stormwater program, including the \$800,000 from the Transportation Trust Fund. Using a population estimate of 95,000 (2011 Census Estimate), this is an equivalent cost of \$42 per capita for stormwater services. Using the benchmark data presented in Table 2-3, this is between a LOS C and LOS B. When you consider the County appropriates a portion of its stormwater budget on stormwater maintenance activities associated with roadways within the City of Tallahassee limits, the result would move the benchmark LOS closer to LOS C. This result is consistent with the LOS determination using County specific data (see Section 2.3).



A comparison of the O&M LOS based upon the lane miles of County road currently being maintained was also performed. Currently, the County maintains approximately 1365 lane-miles of roadway. As previously discussed, approximately 694 lane-miles are within the USA and 107 lane-miles are within the City of Tallahassee limits. Because the County maintains roads inside city limits and the costs for this work is included in the overall expenses recorded here, the LOS is identified with Table 2-3 is slightly lower than it is in reality. Based upon the \$2.6 million appropriation for stormwater O&M (see Table 2-1), the County spends approximately \$1,904 per roadway lane-mile on stormwater O&M services. Based upon the benchmark information presented in Table 2-3, this equates to a LOS D, which is consistent with the LOS determination using County specific data (see Section 2.3).

## 2.5 Stormwater Program Level of Service Improvements

The cost of the County’s stormwater program at the current LOS is \$3.95 million. As previously discussed, approximately \$800,000 will come from the Transportation Trust Fund to maintain arterial and collector roadways ,leaving \$3.15 million to be funded by the stormwater assessment, annually. The recommended allocation of the \$3.15 million is presented in **Table 2-4**. In order to provide \$2 million for its CIP program into the stormwater utility fund, the total revenue needed from the stormwater utility fee would be \$5.15 million.

**Table 2-4 Leon County, Florida  
Stormwater Utility Update – Stormwater Management and  
Operation Estimated Budgets Excluding and Including CIP**

Revenue Sources for Stormwater Utility Fund	Existing Budget
Engineering & Permitting Services	\$1,350,000
Stormwater Maintenance	\$1,800,000
<b>Total</b>	<b>\$3,150,000</b>

Revenue Sources for Stormwater Utility Fund	Future Budget
Engineering & Permitting Services	\$1,350,000
Stormwater Maintenance	\$1,800,000
Capital Improvement Projects	\$2,000,000
<b>Total</b>	<b>\$5,150,000</b>



## Section 3

### Parcel Analysis

A stormwater utility program includes a utility fee that is generally based upon the amount of impervious area on a fee payer's land. Generally, the greater the amount of impervious area, the greater amount of stormwater runoff and, subsequently, the greater the effort local cities and counties have to expend to control the runoff. While there are a number of parameters related to runoff, the best parameter is the amount of impervious area. Therefore, to understand the stormwater assessment for Leon County (the County), this project included a study of impervious area as well as other parcel-based information that may be pertinent to the utility assessment.

Based on CDM Smith experience, it has been found in Florida and other parts of the country that there tend to be two distinct categories of parcels which need study: residential and non-residential. Generally, the impervious areas of residential parcels represent relatively uniform classes while the impervious areas for non-residential parcels vary significantly.

Provided in this section is a discussion of the parcels in the study area. The data used in the analysis were obtained from Tallahassee-Leon County GIS (GIS). A brief description of the data and techniques used is provided prior to the consideration of the results for each general parcel type.

#### 3.1 Tallahassee-Leon County GIS and Leon County Appraisal Data

The GIS staff provided CDM Smith with parcel specific GIS and database information. From these records and conversations with the GIS staff, a dataset of parcel information was obtained, a summary of which is provided below.

#### 3.2 Results of Parcel Assessment

A summary of the 2012 parcel data for the Unincorporated County as defined by GIS & LCPA data is provided in **Table 3-1**. The table lists the parcel types, number of parcels encountered in the dataset, number of estimated dwelling units, the impervious areas used for the assessment and the assessment revenues. The data are separated into residential, non-residential and vacant categories. The percentages are rounded to the nearest 10<sup>th</sup> percent. Also included in these tables are the relative percent of the County each category represents. It should be noted that there are a number of "vacant" parcels as defined by the GIS datasets (1,289 to be precise). These parcels, although coded as if they have no development (i.e., vacant), were considered in the analysis as they did have onsite improvements such as mobile homes or parking areas. For the purposes of the summary the 100 Department of Revenue Codes were categorized as follows:



**Table 3-1 Leon County, Florida  
Stormwater Utility Update  
Summary of Unincorporated County Parcel Data FY 2011-2012**

Parcel Type	No. of Parcels	% of Total	Estimated Dwelling Units	% of Total	Impervious Area (sq ft)	% of Total	SWU Assessment	% of Total
<b>Residential</b>								
Single Family <sup>1</sup>	27,130	73.6%	27,130	73.4%	107,177,177	64.3%	\$542,600	58.4%
SFR with > 1 DU	769	2.1%	1,900	5.1%	4,958,171	3.0%	\$38,020	4.1%
Mobile Home	5,652	15.3%	5,652	15.3%	12,031,183	7.2%	\$113,040	12.2%
Mobile Home with >1 DU	451		1,091		1,944,451		\$21,820	
Condominium								
Multifamily 2-9 DUs	264	0.7%	669	1.8%	929,558	0.6%	\$13,380	1.4%
Multifamily >9 DUs	3	0.0%	332	0.9%	1,091,838	0.7%	\$1,060	0.1%
Misc. Residential	204	0.6%	204	0.6%	508,874	0.3%	\$4,780	0.5%
<b>Subtotal Residential</b>	<b>34,473</b>	<b>93.6%</b>	<b>36,978</b>	<b>100.0%</b>	<b>128,641,252</b>	<b>77.1%</b>	<b>\$734,700</b>	<b>79.0%</b>
<b>Nonresidential</b>								
Commercial	477	1.3%			15,650,717	9.4%	\$71,918	7.7%
Industrial	253	0.7%			7,876,516	4.7%	\$39,704	4.3%
Agricultural	1	0.0%			61,734	0.0%	\$40	0.0%
Institutional	50	0.1%			1,748,510	1.0%	\$9,134	1.0%
Churches	138	0.4%			2,736,354	1.6%	\$17,406	1.9%
City/County	45	0.1%			1,224,439	0.7%	\$5,384	0.6%
Governmental	25	0.1%			1,738,624	1.0%	\$1,776	0.2%
Public Schools	9	0.0%			2,491,003	1.5%	\$2,206	0.2%
Miscellaneous	80	0.2%			750,427	0.4%	\$6,964	0.7%
<b>Subtotal Nonresidential</b>	<b>1,078</b>	<b>2.9%</b>			<b>34,278,324</b>	<b>20.6%</b>	<b>\$154,532</b>	<b>16.6%</b>
<b>Vacant</b>								
Vacant Residential	1,171	3.2%	1,275		2,330,028	1.4%	\$29,360	3.2%
Vacant Commercial	72	0.2%			1,085,112	0.7%	\$9,372	1.0%
Vacant Industrial	33	0.1%			97,222	0.1%	\$1,000	0.1%
Vacant Institutional	13	0.0%			360,289	0.2%	\$906	0.1%
<b>Subtotal Vacant</b>	<b>1,289</b>	<b>3.5%</b>			<b>3,872,651</b>	<b>2.3%</b>	<b>\$40,638</b>	<b>4.4%</b>
<b>Total Unincorporated</b>	<b>36,840</b>	<b>100.0%</b>	<b>38,253</b>		<b>166,792,227</b>	<b>100.0%</b>	<b>\$929,870</b>	<b>100.0%</b>
<b>Total Developed</b>	<b>35,551</b>		<b>36,978</b>		<b>162,919,576</b>			
Estimated Unincorporated Population <sup>2</sup>			89,895					
Estimated 2011 Population (2010 Census Estimate)			95,006					

## Notes:

- 1 Based on NAV Database, some SFU (DOR Code 01) have more than 1 DU.
- 2 Estimated population based on 2.35 persons per DU (2010 Census)



<u>DOR Code</u>	<u>Category</u>
00	Vacant Residential
01	Single Family
02	Mobile Homes
03, 08	Multifamily
04	Condominiums (none in record)
05, 06, 07, 09	Miscellaneous Residential
10	Vacant Commercial
11 - 39	Commercial
40	Vacant Industrial
41 - 49	Industrial
50 - 69	Agricultural
70	Vacant Institutional
71	Churches
72 - 79	Institutional
80, 81, 82, 84, 85, 87 - 89	Governmental
83, 86	City/County
90 - 99	Miscellaneous

For the purposes of this analysis, the term “Single Family” refers only to those parcels in DOR Code 01. Mobile homes, even though only one family may reside in them, and Multifamily are considered Non-Single Family Residential.

Also, for this analysis, “Miscellaneous Residential” includes parcels in DOR Codes 05, 06, 07 and 09. According to the GIS data, the Unincorporated County has 204 parcels identified as DOR Code 07, which according to the Department of Revenue means “Miscellaneous Residential (migrant camps, boarding houses, etc.)”. How the County assigns billing units to these types of parcels is subject to County policy and in Florida, there is no standard of practices for this issue. For the purposes of this analysis, each parcel in DOR Code 07 was assigned 1 billing unit.

In total, there are 36,840 assessed parcels in the Unincorporated County, of which 34,473 are residential in nature (94 percent). The majority of the residential parcels are single family units (73 percent). The second largest number of residential parcels is Mobile Homes at 15.3 percent. Of the 1,078 non-residential parcels, 477 (44.2 percent) are commercial, 253 (23.5 percent) are industrial and 138 (12.8 percent) are churches. Of the parcels identified as vacant, most are vacant residential.

From the NAV records, the impervious area for each category is also shown in Table 3-1. Residential parcels represent 77.1 percent of the impervious area, nonresidential parcels represent 18.6 percent and vacant parcels represent 4.4 percent of the total. Also, of the estimated \$929,870 in revenue, 79.0 percent comes from residential parcels, 16.6 percent comes from nonresidential parcels and 4.4 percent comes from vacant parcels.

### 3.3 Estimated Dwelling Units

To consider rate structure options, an estimate of the number of dwelling units was needed. For single family units, normally it is assumed that each parcel is one dwelling unit. From the NAV dataset, about 770 parcels have more than one dwelling unit located on the parcel. These parcels are separately listed in Table 3.1. This is also true of mobile homes: one dwelling unit per parcel is normally assumed. There are 451 mobile home parcels with more than one dwelling unit – these are also listed separately. Finally for multifamily, the NAV record was used to identify the number of



dwelling units associated with each parcel type including vacant residential. In total, about 38,250 dwelling units were identified, the majority of which are single family units (71 percent).

### 3.4 Estimated Parcels for USA

One of the considerations of this study was the potential for service areas. Service areas, for the purpose of this study, are areas in the County where differential levels of service may be offered by the County. Upon discussion with County staff, it was suggested that one such separation may be parcels in the Urban Services Area (USA) and those without. Staff believed that the O&M component of the stormwater program may be less in the non-USA area. To test this, the parcels within and without of the USA (in the Unincorporated County) were separated.

Using the GIS information, parcels within the USA were identified.. Of the 36,840 assessed parcels in the Unincorporated County, 23,568 (64 percent) are in the USA. **Table 3-2** summarizes the number of parcels, number of estimated dwelling units, impervious areas and assessment revenues for the Unincorporated County portion of the USA. Residential parcels comprise 23,495 (94 percent) of the parcels, most of which are single family units (84 percent). There are 786 nonresidential parcels in the unincorporated portion of the USA representing 3.3 percent of the total number of parcels. The rest of the parcels (2.3 percent) are coded as vacant by the Property Appraiser's Office. Using the same methods noted above for impervious area, the USA has 110.4 million square feet of impervious area of which only 73.9 percent is residential.



**Table 3-2 Leon County, Florida  
Stormwater Utility Update  
Summary of Parcel Data FY 2011-2012 – Urban Services Area**

Parcel Type	No. of Parcels	% of Total	DU/ Parcel	Estimated Dwelling Units	% of Total	Imperv Area (sq ft)	% of Total	Avg. Imperv per DU (sq ft)	SWU Assessment	% of Total
<b>Residential</b>										
Single Family	19,700	83.6%	1	19,700	83.8%	73,476,092	66.5%	3,730	\$394,000	64.6%
SFR with > 1 DU	298	1.3%	2.5	749	3.2%	1,978,666	1.8%	2,642	\$14,980	2.5%
Mobile Home	1,866	7.9%	1	1,866	7.9%	3,769,349	3.4%	2,020	\$37,320	6.1%
Mobile Home with >1 DU	92	0.4%	2.53	233	1.0%	355,264	0.3%	1,525	\$4,660	0.8%
Condominium										
Multifamily	240	1.0%	3.75	902	3.8%	1,896,532	1.7%		\$12,460	2.0%
Misc. Residential	45	0.2%	1	45	0.2%	121,989	0.1%	2,711	\$1,220	0.2%
<b>Subtotal Residential</b>	<b>22,241</b>	<b>94.4%</b>		<b>23,495</b>	<b>100.0%</b>	<b>81,597,892</b>	<b>73.9%</b>	<b>3,473</b>	<b>\$464,640</b>	<b>76.1%</b>
<b>Nonresidential</b>										
Commercial	385	1.6%				13,870,197	12.6%		\$60,172	9.9%
Industrial	228	1.0%				7,194,140	6.5%		\$36,808	6.0%
Agricultural		0.0%					0.0%			0.0%
Institutional	27	0.1%				1,224,995	1.1%		\$7,324	1.2%
Churches	80	0.3%				2,069,605	1.9%		\$12,066	2.0%
City/County	25	0.1%				752,559	0.7%		\$2,584	0.4%
Governmental	18	0.1%				310,697			\$1,216	
Public Schools	4	0.0%				876,030			\$806	
Miscellaneous	19	0.1%				156,896			\$2,080	
<b>Subtotal Nonresidential</b>	<b>786</b>	<b>3.3%</b>				<b>26,455,119</b>	<b>24.0%</b>		<b>\$123,056</b>	<b>20.2%</b>
<b>Vacant</b>										
Vacant Residential	437	1.9%		437		904,299	0.8%		\$12,220	2.0%
Vacant Commercial	66	0.3%				1,071,164	1.0%		\$9,132	1.5%
Vacant Industrial	31	0.1%				96,185			\$960	
Vacant Institutional	7	0.0%				291,715			\$366	
<b>Subtotal Vacant</b>	<b>541</b>	<b>2.3%</b>				<b>2,363,363</b>	<b>2.1%</b>		<b>\$22,678</b>	<b>3.7%</b>
<b>Total Unincorporated</b>	<b>23,568</b>	<b>100.0%</b>		<b>23,495</b>		<b>110,416,374</b>	<b>100.0%</b>		<b>\$610,374</b>	<b>100.0%</b>
<b>Total Developed</b>	<b>23,027</b>			<b>23,495</b>		<b>108,053,011</b>				

The table also identifies the stormwater utility revenue from the USA, about 65.6 percent of the total revenue.



## Section 4

# Rate Structure Analysis

As part of this assessment of the Leon County Stormwater Utility, a number of potential rate structures were considered. For this section, the rate structure options are considered independent from the fee. In the next section, the annual fee is varied to consider the current stormwater utility fund subsidy.

### 4.1 Purpose

In the previous section, information related to the potential customers within the unincorporated County was gathered including number of parcels, number of dwelling units, and impervious areas for various different parcel types. These data were collected to develop a rate model for the stormwater assessment, which is intended to estimate the potential rates and revenues depending on rate structure options. Also, to consider the potential rates for differing rates in the USA, a rate model was prepared for just the parcels in the USA.

### 4.2 Rate Model

The rate model for the County is a series of worksheets within spreadsheets that provide the following:

- A ten-year estimate of program costs for Management, Compliance and Implementation, Operation and Maintenance (O&M); and Capital Improvement Program (CIP). The CIP costs are separated so that a Pay-As-You-Go funding can be compared to a bonded program. Costs are assumed to increase at 2% per year while revenue (i.e., number of SFU's) is assumed to increase at 1% per year.
- An ad valorem tax worksheet estimates the ad valorem tax rate (millage or \$ per \$1000) that would generate an equivalent total program. In this spreadsheet, the millage needed to generate a specified revenue need can be estimated as well as to estimate the revenue for a given tax rate.
- An options worksheet allows the user to identify whether or not a rate structure option is to be simulated. Options include single family unit equivalence or residential equivalence; billing unit based on single family units only or all residential units; potential credits and the amount of credits (percent reduction in fee); various adjustments that might be offered; and tiered non-single family residential rates. This spreadsheet also accumulates the number of extra staff needed to administer the rate structure options.
- A worksheet showing the resultant annual revenue from the options selected for rates in \$5 increments from \$10 per year per SFU to \$100 per year per SFU.
- A worksheet with a 10-year projection of rates and program needs is provided with the ability to test the effect of a pay-as-you-go CIP program compared to a bonded program with annual debt service. For the 10-year bonded CIP, two bonds are simulated for each of the 5 years (20-year repayment, 7 percent loan rate, 25 percent coverage and 12 percent financing costs.



- A worksheet with the highest 25 parcels based on the 2012 Assessment record and the effects the chosen rate structure options may have on their assessment.
- The final worksheet in the file is the summary of data used for the other worksheets. This table is shown in **Table 4-1** for the data from this study.

**Table 4-1 Leon County, Florida Stormwater Utility Update  
Summary of Parcel Data (October 2012)**

Parcel Type	No. of Parcels	No. of Dwelling Units	2012 Imperv. Area (sq ft)	2012 Total Parcel Area (sq ft)	Imperv./ DU or Parcel	Billing Unit Equivalent	SFUs Based on Equivalent	SFUs for Subsidy	% Affected by Credits (Estimated)	Fraction of SFUs	Total SFUs with Options
<b>Residential(1)</b>											
Single Family - Small	2,426	2,426	2,861,836		1,055		2,426		5%	100%	2,426
Single Family - Medium	19,412	19,412	60,546,853		3,272		19,412		5%	100%	18,733
Single Family - Large	1,547	1,547	22,686,379		9,115		1,547		5%	100%	1,547
Single Family - Very Large	880	880	11,707,829		13,304	3,272	880		5%	100%	880
Single Family w/>1 SFU	769	1,900	4,900,177		2,610		1,900		5%	100%	1,900
Multifamily (2)	267	1,001	2,143,522		2,141		1,001		5%	100%	1,001
Mobile Home	6,103	6,743	13,894,287		2,061		6,743		5%	100%	6,743
Misc. Residential	204	204	508,874		2,494		204		5%	100%	204
Single Family w/Exemption	2,865	2,865	9,374,280		3,272		2,865		5%	100%	2,865
<b>Subtotal Residential</b>	<b>34,473</b>	<b>36,978</b>	<b>128,624,037</b>		<b>3,482</b>		<b>36,978</b>				<b>36,978</b>
<b>Nonresidential</b>											
Commercial	477		15,650,717		32,828	3,272	4,786		5%		4,786
Industrial	253		7,876,516		31,132	3,272	2,407		5%		2,407
Agricultural	1		61,734		61,734	3,272	19		5%		19
Institutional w/o Churches	50		1,748,510		34,970	3,272	534		5%		516
Churches	138		2,736,354		19,829	3,272	836	836	5%		836
Governmental w/o Schools	25		1,738,624		69,545	3,272	531	531	5%		531
City/County	45		1,224,439		27,210	3,272	374	374	5%		374
Schools	9		2,491,003		276,778	3,272	761	761	5%		761
Miscellaneous	80		750,427		9,380	3,272	229		5%		229
<b>Subtotal Nonresidential</b>	<b>1,078</b>		<b>34,286,393</b>		<b>31,806</b>		<b>10,479</b>	<b>2,503</b>			<b>10,479</b>
<b>Vacant</b>											
Vacant Residential	1,171	1,275	3,634,878			3,272	1,111	1,111	5%		1,111
Vacant Commercial	72		1,200,027			3,272	367	367	5%		367
Vacant Industrial	33		119,907			3,272	37	37	5%		37
Vacant Institutional	13		360,612			3,272	110	110	5%		110
<b>Subtotal Vacant</b>	<b>1,289</b>	<b>1,275</b>	<b>5,315,424</b>								<b>1,568</b>
<b>Total Developed</b>	<b>35,551</b>	<b>36,978</b>	<b>162,910,430</b>				<b>47,457</b>	<b>4,128</b>			<b>47,457</b>
<b>Total Parcels</b>	<b>36,840</b>	<b>38,253</b>	<b>168,225,854</b>								<b>49,081</b>

Note:

- (1) Small SF is 10<sup>th</sup> percentile and below; Large is 90<sup>th</sup> percentile and above. Very large is greater than 10,000 square feet.
- (2) Multifamily includes parcels with DOR Codes 03 and 08.
- (3) For Residential, column represents impervious per Dwelling Unit.  
For Nonresidential, column represents impervious per Parcel.

Type	SFUs	%
Residential	38,089	77.6%
Nonresidential	10,992	22.4%



It should be noted that for the rate model, single family parcels were split into tiers based on impervious areas. Separately, parcels owned by disabled veterans or low income exemptions were quantified for credit calculations. It was assumed that all of these parcels came from the Single Family - Medium category and were moved to a separate category called “Single Family w/ Exemption” solely to consider the effects of rate structure options on this category. Also, the average impervious area per dwelling unit for Single Family – Small and Single Family – Large were based on the 20<sup>th</sup> and 80<sup>th</sup> percentile, respectively. Also, the parcel database included single family parcels (DOR Code 01) with more than one dwelling unit (usually a home with one or more mobile home). These parcels were separated in Table 4-1.

A snapshot of each of the worksheets (tabs in an Excel file) is provided in the **Appendix**.

### 4.3 Stormwater Program Needs

**Table 4-2 Leon County, Florida Stormwater Utility Update  
Summary of FY13 Program Costs**

Program Element	Future Budget	% of Total
Engineering & Permitting	\$1,350,000	26.2%
Operations & Maintenance	\$1,800,000	35.0%
Capital Improvement Program	\$2,000,000	38.8%
Total	\$5,150,000	100.0%

With the help of County staff, the program costs for the County were estimated and projected for potential future levels of service scenarios. **Table 4-2** provides a summary of the existing stormwater

program needs for the management and O&M costs for the County. The costs were separated in this fashion to allow various revenue sources to pay for various components of the program. In the lower part of the table, as an alternative, an additional \$2 million has been included at the request of the County staff to consider the funding of capital projects independent of the general fund, grants or sales taxes.

### 4.4 Rate Structure Alternatives – Unincorporated County

As noted previously, most of the stormwater utilities in the United States are based on the impervious area of the customer’s property. Actually, the majority of stormwater utilities have a uniform rate for all residential and nonresidential parcels, with the residential customer’s fee based on the number of dwelling units and the nonresidential customer’s fee based on the impervious area. The purpose of this section is to discuss the alternatives for the stormwater utility rate structure. Alternatives include uniform and variable rates for both residential and non-residential customers, exemptions, and credits.

To compare the fiscal consequences of each alternative considered, the option was compared to the results for the existing rate structure. This structure includes 1 billing unit (known as an SFU, see below) for each dwelling unit associated with residential parcels and a calculated number of billing units for non-residential parcels based on their respective impervious areas. Using the current rate structure, the estimated number of billing units (or SFUs) is 49,081 based on an updated average single family unit impervious area (see below).



#### 4.4.1 Equivalent Units

In order to provide an equitable measure of impervious areas for both residential and non-residential developed parcels, stormwater utilities have used an equivalent or base unit to measure the impervious areas by a uniform basis. Similar to other types of utilities, the equivalent unit for a stormwater utility is the relative amount of contribution of a fee payer compared to a residential unit. In other words, the residential unit is the base for the utility fee.

Two methods of defining the equivalent or base unit have been employed in Florida. The first is named the Single Family Unit Equivalent, or SFU. As expected by the name, a SFU is defined as the average or median impervious area for single family detached residences within the county. The current value used as the SFU is 2,723 square feet, based on an analysis completed prior to the adoption of the original ordinance in 1991. From the recent information obtained from the County, this method results in a median value of 3,272 square feet for the County. The second method, known as Equivalent Residential Unit or ERU, is based upon the average or median impervious area for all residential unit types including single family, multifamily, apartments and mobile homes. For Leon County, the average impervious area for all residential parcels is 3,553 sq. feet, not significantly different than the SFU value (9 percent increase).

From the rate model, the number of SFUs is 49,081 billing units, while, for the ERU method, there are 48,420 billing units (a 1.3 percent decrease). The difference is because, while the residential SFUs stay the same, the nonresidential billing units are based on a slightly larger denominator.

It should be emphasized that the choice of the SFU or ERU base is subject to the policy decisions of the County and that different communities around the U.S. have chosen differently. In Florida, the 2011 FSA Survey, within which all 10 counties were respondents, reports that 50 percent of the 10 counties with assessments or fees use the SFU base and 30 percent use the ERU base (20 percent use some other equivalent). For all cities and counties (81 respondents), 61 percent use the SFU, 30 percent use the ERU and 9 percent use another method. In the case of Leon County, 73.4 percent of the dwelling units are single family which leads to the result that an SFU Equivalent seems appropriate.

#### 4.4.2 Uniform or Tiered Residential Rates

Many utilities have the residential customer pay in relation to the number of dwelling units for the customer. A single family unit is assigned 1 SFU and a duplex is assigned 2 SFUs, for example. In Florida, 70 percent of counties use this method. Two other options are possible: variable single family rates and uniform rates by residential type. Each of these is considered below.

**Tiered Single Family Rates.** For this alternative, single family (and for that matter all residential customers) would be assigned a fee based on the impervious area of their property in the same manner as the nonresidential properties. The purpose of this would be to have a fee directly related to amount of impervious area on each customer's property. Most stormwater assessment datasets do not have the impervious area readily available – the Leon County GIS does. That is, using the footprint plus appurtenances and some extra features, a value for impervious area for single family can be defined. The driveway is excluded but can be added as a unit average number. Therefore, impervious area data for each single family parcel is not a significant limitation in the County.

There are some stormwater utilities that have a tiered structure for single family units to recognize that some single family properties are very small and some are extremely large. If each is assigned a fee based on 1 SFU, then the small properties may appear to pay too much and the large properties appear to pay too little. Previous studies in the US have shown that when the ratio of the 90<sup>th</sup>



percentile to the 10<sup>th</sup> percentile is greater than 2.5, a tiered structure can be justified. In the case of Leon County, the ratio of the 90<sup>th</sup> percentile and 10<sup>th</sup> percentile is 4.05, a value which suggests a tiered methodology.

**Table 4-3 Leon County, Florida Stormwater Utility Update  
Potential Tiered Single Family Rate Structure**

Category	Minimum Impervious Area (sq ft)	Maximum Impervious Area (sq ft)	No. of Parcels	Total Impervious Area (sq ft)
Small	0	1,629	2,426	2,861,836
Medium	1,629	7,096	19,412	60,546,853
Potential Special Adjustment - Medium	1,629	7,096	2,865	9,274,280
Large	7,097	9,999	1,547	22,686,379
Very Large	10,000	53,930	880	11,707,829
Total			27,130	107,177,177

To use a tiered structure, the impervious area of every single family unit would be needed. A possible structure is shown below based on the median, Small (10<sup>th</sup> percentile) and Large (90<sup>th</sup> percentile) values of the measured properties. The Very Large Single Family parcels are those with impervious areas equal to or

greater than 10,000 square feet. The SFUs for the each tier is the midpoint impervious area in the range divided by the median value (3,246 square feet), and the SFUs for the large tier is recommended to be based on impervious area divided by the median value, in the same manner as is non-residential parcels. Also, because many of the public tend to believe that very large home need to pay more, homes greater than 10,000 square feet can be billed as a commercial property is (i.e., based on impervious area). **Table 4-3** shows a potential tiered structure using the 10<sup>th</sup> and 90<sup>th</sup> percentile values. It should be noted that the Disabled Veterans or Low Income Senior SF that may receive a special adjustment (see below) were assumed to be within the Medium Category.

If a tiered structure with Small, Medium and Large SF parcels is used, there would a 5.5 percent increase in revenue as the large single family parcels generally generate revenue to compensate for the small ones. If the very large single family tier is considered, additional SFUs are generated (an 8.5 percent increase in revenue).

Table 4-1 summarizes the information for SF (single-family) parcels with either a disabled veterans or senior low income credits. The rate model simulated the revenue consequences if such parcels had reduced fees. While the rate model can be modified for various percentages, for the rate structure analysis, a reduction of 50 percent (that is, the parcels are assigned 50 percent of the other SF fees) was used. Since parcels cannot be exempted from a non-ad valorem assessment other than provided in state law, these fees can only be offset by a credit from the County through another revenue source such as the General Revenue. The overall rate would stay the same for all other parcels and the credited SF parcels would be funded by a subsidy based on 1,432 SFUs times the chosen rate.

**Non-Single Family Residential Fees Based on Impervious Areas.** As an alternative to the non-SF residential parcels which in this report refers to Multifamily, Mobile Homes and Miscellaneous Residential to be based on dwelling unit (the most administratively simple alternative), the non-SF residential parcels may be addressed in the same manner as the nonresidential; that is, tiered based on total impervious area. According to the parcel dataset summarized in Table 4-1, there are estimated to be 7,948 non-SF dwelling units in the unincorporated County (22% of the total residential dwelling units) excluding Single Family with more than 1 dwelling unit. Using the average impervious areas for each non-SF type, the ratio to that for Single Family is as follows:



**Table 4-4 Leon County, Florida Stormwater Utility Update  
Potential Tiered Residential Rates**

Average Residential Type	Percent of Impervious	SFU's Single Family	Per DU
Single Family	3,272	100%	1.0*
Single Family w/>1 DU	2,610	80%	1.0*
Multifamily	2,141	65%	0.7
Mobile Homes	2,061	63%	0.6
Misc. Residential	2,494	76%	0.8

\*Note: this can be 1 SFU per unit or tiered.

For this option, Single Family would be assigned 1 SFU or based on a tiered structure and other non-SF parcels would be assigned less than one SFU per DU. For example, a multifamily parcel with 10 dwelling units would be assigned 10 times 0.7 or 7 SFU's.

According to the FSA 2011 Survey, 70 percent of the counties and 58 percent of all SWU in Florida have a rate structure with multifamily customers assigned the same number of billing units as the single family customers (i.e., 1 SFU per dwelling unit).

### 4.4.3 Nonresidential Rates

Nonresidential customer rates for adopted stormwater utilities in the United States are almost always related to the impervious area of the property. For most utilities, the actual impervious area is measured or inferred for each nonresidential parcel, and the ERU assignment is the parcel's impervious area divided by the residential equivalent. An alternative to this is to assign nonresidential property types a percent imperviousness based on literature values or a statistically measured sample of imperviousness. However, in the case of the County, all of the non-residential parcels have impervious area measured and these data are already part of the assessment database; therefore, other less accurate rate structures (e.g., percent imperviousness assigned) are not supported.

The FSA 2011 Survey shows that 83 percent of the respondents use an impervious area for fee setting, 7 percent use pervious and impervious area, and 10 percent use other methods (such as intensity of development). For counties, 60 percent use impervious area, 20 percent use the gross area, and 20 percent use either intensity of development or other methods

### 4.4.4 Adjustments and Credits

Exemptions and credits are related to a reduction in the fee for a customer due to a reduction of the services provided to the customer. For an exemption, all or some of the fee is eliminated because of special circumstances, such as a reduction in imperviousness due to a portion of the property not draining to the County's stormwater system. A credit on the other hand is related to the reduction in fees due to special action taken by the fee payer to reduce the need for stormwater services such as the design, construction and maintenance of a stormwater pond that reduces both stormwater flows and pollutants associated with runoff. In both cases, however, the amount of the reduction can depend on the services being provided the customer.

As noted in Section 2, the three basic services of any stormwater program are Engineering & Permitting which includes NPDES compliance, operation and maintenance (O&M), and capital improvements (CIP). For a total LOS C recommended program costing \$5,150,000 annually (see Table 4-2), the portions of each component are as follows:



<u>Program Component</u>	<u>Cost</u>	<u>Percent</u>
Engineering & Permitting	\$1,350,000	26.2%
Operation & Maintenance	\$1,800,000	35.0%
Capital Improvement Program	\$2,000,000	38.8%

The Engineering & Permitting costs for any particular customer would be the same regardless of the presence of private BMPs on the property because these costs relate to general services received by all; thus for an example, the maximum potential credit allowed could be about 73.8 percent (the sum of percentages for O&M and CIP). For this program, this value has been rounded up to 75 percent. If a customer has a stormwater facility that reduces the runoff and treats stormwater pollutants, the O&M and CIP services provided by the County would be reduced. For this reason, the amount of the reduction for credits should be related to the reduced services provided to the property based on 75 percent for the stormwater utility fee.

**Adjustment Based on Control of Stormwater Volume**

One of the adjustments that can be considered is related to the reduction of stormwater runoff to the County’s stormwater system. For many stormwater utilities, the only circumstance in which a reduction is meaningful to the overall stormwater system is for the 100-year storm event, a major stormwater quantity level of service measure. The control of stormwater for the 100-year storm event can be accomplished for two characteristics of the event: rate and volume. Rate control allows the total amount of runoff to be discharged to the stormwater system over a prolonged period of time, but does not decrease the volume of runoff. Volume control reduces the total amount of runoff ultimately discharged to the stormwater system.

For the utilities with an adjustment for volume controls, many are related to the 100-year storm event. Control of the volume for a 100-year storm event would be a significant and measurable reduction in the O&M and CIP services provided to a property. As a result, an adjustment based on the control of the 100-year storm volume can be assigned an adjustment for the O&M and CIP portion of the fee, which represents 75 percent for the utility.

It should be noted that these adjustments are related to specific characteristics of the customer’s property. An adjustment for the control of the 100-year storm event and the discharge of property runoff to non-municipal stormwater systems requires site specific information. If adjustments for these conditions are allowed by the County, then the customer must petition the County by providing parcel specific, competent and substantial evidence such as photographs or engineering drawings.

**Adjustments for Stormwater Facilities Without Volume Controls**

These adjustments are for customers who, except for mitigating circumstances, would have to pay the whole fee. Mitigating circumstances include onsite stormwater facilities that attenuate and treat stormwater runoff. For example, compare three properties: one built with no detention ponds, one built with a detention pond that is not maintained, and the last with a maintained pond. In the first case, stormwater runs off the land uncontrolled and untreated to the County’s stormwater system. In the second, while the runoff was originally controlled, due to lack of maintenance, runoff is no longer controlled and is no better than the first case. In the last example, runoff is controlled and treated, thereby reducing the burden on the County’s system. Of these three cases, the third clearly has reduced the services that the County needs to provide and deserves a reduction in fee (credit).



There are a number of methods used to adjust the fees for credits. The most common methods include a percentage reduction and relative reduction. In the percentage reduction, if the customer designs, builds and maintains an on-site stormwater facility, then a straight percentage reduction on the fee based on the O&M and CIP budget components of the revenue needs. For the second, the reduction is relative to an ideal stormwater facility. For example, assuming that to treat stormwater runoff, a property needs 0.1 acre-feet (ac-ft) of storage for every acre of impervious land. The ideal with this assumption for a 10-acre site with 50 percent imperviousness would be 0.5 ac-ft of storage. If this parcel constructs a pond with 0.5 ac-ft, then the site gets the maximum credit. If the actual pond is smaller, then the credit is relative to the ratio of the actual size and the ideal. Clearly, the first method is easier to administer but the second is more site-specific.

Either of the credit methods can be administered by County staff. However, to keep the program simple initially, the percentage reduction should be allowed if credits are authorized. Also, it is important that facilities are maintained annually to retain the credit. Therefore, the credit should require annual certification of maintenance via competent and substantial evidence and should be checked periodically by County staff through random and unannounced site inspection. Furthermore, since the County wishes to encourage the construction and maintenance of private stormwater ponds according to County standards, the 75 percent credit for detention ponds should be allowed only if the pond meets current County code.

A second type of adjustment for stormwater treatment would be for an incentive to reduce stormwater runoff and treat stormwater on site. For example, if a property owner uses Low Intensity Development (LID) techniques (e.g., Directly Connected Impervious Area or DCIA reduction, vegetative buffers, rain gardens, cisterns, etc.) both the runoff volume and the runoff pollutants are reduced, decreasing the effort required by the County to deal with the volume and pollutants. Since on-site stormwater facilities and LID techniques reduce the capital needs of the County, the adjustment should be no more than 33 percent of the separate utility fee. The County is in the process of developing specific LID protocols and methods; it is recommended that this credit should be re-evaluated as part of the rate structure after a standard protocol has been approved.

## 4.5 Consequences of Rate Structure Options

Using the rate model, the number of billing units (a.k.a., SFU) changes depending on the rate structure options chosen. **Table 4-5** provides the revenue consequences for each of the general rate structure options in comparison to the existing rate structure (i.e., single family-defined billing unit, 1 billing unit defined for each dwelling unit for all residential parcels, and 1 SFU defined for each 3,272 square feet of impervious area on nonresidential parcels). Each of the options is compared to the SFUs for the existing rate structure.



**Table 4-5 Leon County, Florida Stormwater Utility Update  
Summary of Consequences for Rate Structure Options**

Option	Total SFU	% Change in SFU from Current
Current Rate Structure	49,081	
ERU Based Fee	48,420	1.4%
Tiered Single Family	51,772	-5.2%
Tiered Single Family w/Large SF Extra	53,223	-7.8%
Variable Non-Single Family	45,663	7.5%
Credit for Pond at 75%	47,348	3.7%
Vacant Parcel is Excluded	47,457	3.4%
Disabled Vets & Low Income Senior	48,365	-2.9%

Most alternative rate structure options increase the fee required to fund the existing program from 1 to 7 percent. The Tiered Single Family alternative slightly decreases the rate and the Tiered Single Family with Extra Large Single Family treated like nonresidential parcels would decrease the fee by almost 7 percent. Also, for the Disabled Veterans and Low Income

Senior parcels, a 50 percent reduction in fee would slightly decrease the number of SFUs.

### 4.6 Urban Services Area Options

During the consideration of the level of service (LOS) for stormwater services, the LOS for properties within the USA and that for properties outside of the USA was considered. Based on discussions with the County staff, it was concluded that the LOS inside and outside the USA were the same for Engineering & Permitting and CIP activities. However, the LOS for O&M services may be less for properties outside of the USA. As noted in Table 4-2, the total existing O&M program costs \$1,800,000. According to County staff, 67 percent of the stormwater facilities are in the USA; assuming the O&M is consistent with the percent of facilities then the O&M costs in the USA are \$1,206,000 and outside the USA the costs are \$594,000. **Table 4-6** below results from using the parcel data from Section 3 (the distribution of SFUs is based on the ratio of total revenues from Tables 3-1 and 3-2).

In this example, while the revenue requirements for the non-USA areas are smaller than for the USA, there are fewer SFU in the non-USA area. This results in a slightly larger fee in the USA area.

**Table 4-6 Leon County, Florida Stormwater Utility Update  
O&M Rate for USA and Non-USA Areas**

Area	Total SFU	Total Revenue Need	Resultant O&M Fee (\$/year/SFU)
USA Parcels	32,303	\$1,206,000	\$39.30
Non-USA Parcels.	16,778	\$594,000	\$37.27



## Section 5

### Rate Alternatives

As noted in the level of service (LOS) analysis, the County is subsidizing the stormwater management program each year using general fund revenues. According to County records, the actual subsidy for FY11 was approximately \$1.891 million; the subsidy budget for FY12 was \$2.619 million; projected subsidy budget for FY13 was \$2.985 million. These represent a 38 percent and 14 percent increase over these years.

The purpose of this Section is to show the fiscal and rate consequences to fund the stormwater program (or at least, components of it) over the next 10 years. As noted previously, the County is interested in considering the rate needed to fund the Engineering & Permitting, O&M and CIP programs at levels of \$1.35 million, \$1.8 million and \$2.0 million, respectively, totaling \$5.15 million. One option to fund this program is to authorize a sufficient rate in the first year. Another option is to amortize the rate over a period of 5 years. In either case, the subsidy would be eliminated.

### Rate Model

For the purposes of this analysis, the following rate structure options have been included in the model to consider the rates needed to fund the program defined above:

- Single Family Unit equivalent (SFU);
- Tiered Non-Single Family Residential;
- "Vacant" parcels with impervious area included;
- Disabled Veterans and Low Income Senior Adjustment of 50 percent; and,
- Credits for Stormwater Facilities (75 percent reduction).

For this rate structure, the estimated number of SFU's is 42,686.

### Rate Scenario Results

Based on the number of SFU's, to generate \$5.15 million, the fee would be estimated to be \$140 per SFU per year assuming a 95 collection. If the reduction in fee is offered for Disabled Veterans and Low Income Senior exemptions, the General Fund subsidy required would be \$200,480 (1,432 SFUs times \$140).

To fund the \$5.15 million in 5 years accounting for a 95 percent collection, the fee would start out at \$44 per year per SFU, and increase by \$24 per year per SFU for each of the next 4 years. After 5 years, the ultimate rate would be about \$140 per year per SFU. The rates vary with time since the rate model includes an increase of 1 percent per year in the number of SFU's and a 2 percent increase per year in costs.



A summary of the rate options is provided in **Table 5-1** and **Table 5-2**.

**Table 5-1 Leon County, Florida Stormwater Utility Update Study  
Rate Alternatives to Fund \$3.15 Million Annually**

Year	Revenue	Rate
FY13	\$1,336,310	\$33.33
FY14	\$1,881,363	\$46.00
FY15	\$2,437,183	\$59.00
FY16	\$3,003,931	\$72.00
FY17	\$3,581,770	\$85.00
FY18	\$3,617,588	\$85.00
FY19	\$3,653,764	\$85.00
FY20	\$3,690,302	\$85.00
FY21	\$3,727,205	\$85.00
FY22	\$3,764,477	\$85.00

**Table 5-2 Leon County, Florida Stormwater Utility Update Study  
Rate Alternatives to Fund \$5.15 Million Annually**

Year	Revenue	Rate
FY13	\$1,781,747	\$44.00
FY14	\$2,781,145	\$68.00
FY15	\$3,800,353	\$92.00
FY16	\$4,839,666	\$116.00
FY17	\$5,899,386	\$140.00
FY18	\$5,958,380	\$140.00
FY19	\$6,017,964	\$140.00
FY20	\$6,078,144	\$140.00
FY21	\$6,138,925	\$140.00
FY22	\$6,200,314	\$140.00



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**EXHIBIT B**  
**RATE SCHEDULE**

<b>Property Use Category</b>	<b>Unit of Measurement Applied Per Unit</b>	<b>Assessment Rate</b>
Residential	Single Family Unit	\$85
Residential	Single Family-Multi Dwellings/Other	\$68
Residential	Multi Family Structures	\$60
Residential	Mobile Homes	\$51
Non-Residential	Total Square Feet of Impervious Area Divided by 3,272 Sq. Ft. (Single Family Unit Equivalent)	\$85
<p>A Single Family Unit Equivalent, or SFU is defined as the average or median impervious area for single family detached residences within Leon County. From the most recent statistical data obtained, this method results in a median value of 3,272 square feet for Leon County. Therefore, one SFU equals 3,272 Sq. Ft.</p>		

**EXHIBIT 2**

**STORMWATER MANAGEMENT SERVICES AND FACILITIES  
NON-AD VALOREM ASSESSMENT ROLL**

Due to the voluminous nature thereof, the assessment roll is not attached to this Resolution in this Agenda Item but has been made available for public inspection in the office of the County Administrator and will be attached hereto upon adoption.