

COUNTY DRAINAGE CANALS AND STRUCTURES

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2010 AUIR FACILITY SUMMARY FORM – Stormwater Management

Facility Type: County Maintained System of Secondary Stormwater Management Canals & Structures (Category A)

Level of Service (LOS) Standard

Stormwater Management continues to effectively manage an important resource. In order to properly address stormwater management, the Stormwater Level of Service (LOS) reflects both Flood Attenuation by controlling flooding through discharge rate (off-site discharge) measured in cubic feet per second (cfs), as well as Water Quality Treatment volume measured in acre-feet for aquifer recharge and water quality protection. All new public and private construction is required by county ordinance to adhere to the current regulations of the South Florida Water Management District (SFWMD). Both LOS standards are adequately accounted for in these regulations. Stormwater discharge rate is computed based on a storm event of 3-day duration and 10-year or 25-year return frequency. More restrictive maximum discharge rates are specified by geographic boundaries detailed in **Ordinance 90-10** and **Ordinance 2001-27**. Water quality treatment volumetric requirements are in general equal to 1 ½ inch of runoff from the proposed developed site area or, if the site contains more than 40% impervious area, equal to the total runoff of 2.5 inches times the percentage imperviousness. Some public works rehabilitation and retrofit projects are occasionally approved with variances to these LOS requirements.

Maps of observed flooding are updated by the Stormwater Management Section as observations of flooding are collected following large events on an on-going basis. This includes mainly observations reported through the Emergency Management Services from fire, sheriff, and ambulance crews, from property owners, from Road Maintenance and Stormwater personnel, and, on occasion, by other County staff. No LOS is applied for the County roadside tertiary system where the primary focus will be on maintenance by the Road and Maintenance Department. This parallels the process for roadway LOS for the major transportation network that is modeled, but doesn't include local streets. As with transportation, the capital project investments of the stormwater program funding are focused on the secondary drainage canals and structures and the National Pollutant Discharge Elimination System (NPDES) Program.

Stormwater Capital Improvement Element (CIE)**Refer to Tables 1 and 2 attached**

This AUIR specifically addresses the projects in the Stormwater Capital Improvement Element (CIE) providing the basis for updating the progress of the county's capital stormwater program. The Non-CIE component of the Stormwater program is also listed to balance the total program with total program revenue. Two of the previous year's capital projects, the Gateway Triangle Stormwater Improvement Project and the Immokalee Urban Stormwater Improvements, have been removed from the AUIR for 2011. The Gateway Triangle Project, a secondary system water quality treatment and outfall improvement project, is scheduled to be completed by 2011. Any future proposed tertiary stormwater improvements in the Gateway Triangle fall within the boundary of the Gateway Community Redevelopment District (CRA) and will be managed by the CRA. The Immokalee Stormwater Project has been transferred to the Immokalee CRA for

funding and implementation. The nature of the work located within CRA boundaries is that of infrastructure retrofit projects based on redevelopment and not "capacity added" type capital improvement projects, therefore management and implementation of projects located within CRA boundaries has been transferred to CRA staff.

Total Program Focus

The FY 11 total stormwater program is significantly reduced as compared to previous years due to decreases in revenue. Program funding is reduced from 2010 by approximately forty-five percent (45%) due to a reduction in dedicated millage from 0.150 mills to 0.100 mills and the projected decrease in taxable value.

The program will have two major points of focus. The first is the continued completion of the county's largest stormwater capital project - the Lely Area Stormwater Improvement Project (LASIP). LASIP is a multi-year, multi-phased, master planned, regional stormwater improvement project designed to add conveyance capacity, attenuation, and water quality improvement to the county maintained system in the East Naples area. Upon completion of the Lely project work will begin in the Belle Meade area.

The second program focus is managing the requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) Permit (Permit ID FLR04E037). The County MS4 is the publicly owned and operated stormwater treatment and conveyance system which discharges stormwater runoff into surface waters of the state. The system must be operated with all appropriate pollution prevention measures in place to reduce the contamination of stormwater runoff and prohibit illicit discharges from privately maintained systems into the county MS4. Measurable elements of the permit, six (6) total, must include public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control and pollution prevention/good housekeeping conduct. Collier County is currently in year 2 of the second 5-year permit cycle.

Significant current NPDES efforts to highlight for this report include ongoing updates to the system inventory and drainage atlas GIS database as well as updating the inventory data of all private inputs of the county MS4. This includes field data collection, review of historic site development and roadway plans, field verification, and data input into a GIS database

Long-Range Planning and Completion of Watershed Studies

Future CIE projects are currently being identified and prioritized as part of a long-range stormwater planning process in coordination with the completion of the watershed studies. Planned future projects will be evaluated on potential for acquiring alternate funding sources and grants, environmental restoration, benefit to cost analysis, stakeholder vetting, and agreement with the recommendations of the watershed studies. The current watershed study effort includes an existing condition evaluation, alternative analysis (future projects) evaluation with stakeholder and agency input, and recommendations for implementation.

July 28, 2010

The secondary system of stormwater management canals and structures will be reassessed to determine existing system capacities, current LOS, identifying the location and nature of any existing deficiencies and proposed needed improvements. This assessment will fully document the current capabilities of the secondary system to treat and convey stormwater from the tertiary (roadside) system to the primary system, which is maintained and operated by the Big Cypress Basin of the South Florida Water Management District. Computer modeling will identify where the demand exceeds the capacity of secondary system (specific deficiencies) and propose upgrades to the system. Proposed system upgrades will be developed in consideration of the recommendations of the watershed studies.

Stormwater Program Summary FY 11 thru FY 15

Capital Improvement Element (CIE)	\$ 29,351,700
<u>Non-CIE Improvement and Maintenance Projects</u>	<u>\$ 2,367,600</u>
Total Stormwater Improvement Budget	\$ 31,719,300

Attachments: Table 1
Table 2

Facility Type: County Maintained System of Secondary Stormwater Management Canals & Structures (Category A)

Table 1 - FY 11 - FY15

Capital Improvement Ement (CIE) Program

SAP No.	Project	FY 11	FY 12	FY 13	FY 14	FY 15	TOTAL
510185	Freedom Park (Gordon River) - Maintenance & Monitoring	\$ 100,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 300,000
511011	LASIP	\$ 5,404,200	\$ 4,600,000	\$ 4,600,000	\$ 4,800,000	\$ 4,000,000	\$ 23,404,200
510059	Belle Meade Area Stormwater Improvements					\$ 950,000	\$ 950,000
	X-fers/Reserves/Debt Service	\$ 939,500	\$ 939,500	\$ 939,500	\$ 939,500	\$ 939,500	\$ 4,697,500
	SubTotal CIE	\$ 6,443,700	\$ 5,589,500	\$ 5,589,500	\$ 5,789,500	\$ 5,939,500	\$ 29,351,700

Non-CIE Program

SAP	Project	FY 11	FY 12	FY 13	FY 14	FY 15	Total
60003	NPDES Program	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 700,000
60094	Secondary System Repair	\$ 200,000	\$ 97,300	\$ 97,300	\$ 71,700	\$ 101,300	\$ 567,600
51144	Stormwater MP Planning	\$ 300,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 900,000
60093	Swale Maintenance and Repair	\$ 200,000					\$ 200,000
	Sub Total Non-CIE	\$ 1,000,000	\$ 347,300	\$ 347,300	\$ 321,700	\$ 351,300	\$ 2,367,600

Total Program Cost	\$ 7,443,700	\$ 5,936,800	\$ 5,936,800	\$ 6,111,200	\$ 6,290,800	\$ 31,719,300
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Revenue

	FY 11	FY 12	FY 13	FY 14	FY 15	Total
Grants (SFWM/BCB Agreements)	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000
Interest/Misc	\$ 50,000					\$ 50,000
Trans fm 001 Gen Fund	\$ 5,273,900	\$ 4,936,800	\$ 4,936,800	\$ 5,111,200	\$ 5,290,800	\$ 25,549,500
Carry Forward	\$ 1,172,300					\$ 1,172,300
Revenue Reserve	\$ (52,500)					\$ (52,500)

Total Program Revenue	\$ 7,443,700	\$ 5,936,800	\$ 5,936,800	\$ 6,111,200	\$ 6,290,800	\$ 31,719,300
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Notes:

1. Assumes FY 15 final LASIP funding year.
2. Gateway project removed from program, scheduled to be complete in 2010. Future stormwater efforts to be completed by CRA.
3. Immokalee project transferred to the Community Development District in 2010.

Table 2

Capital Improvement Element - Appendix Table: 2010 Amendments

**APPENDIX H
FUTURE COSTS AND REVENUES BY TYPE OF PUBLIC FACILITY
FISCAL YEARS 2016-2020**

STORMWATER MANAGEMENT PROJECTS								
	CONSTRUCTION	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	
CIE #	PROJECT	SCHEDULE NOTES	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
	Stormwater Management Facilities - Capital Improvements	Continuous	\$6,475,800	\$6,666,400	\$6,862,600	\$7,064,800	\$7,273,100	\$34,342,700
STORMWATER MANAGEMENT PROJECT TOTALS			\$6,475,800	\$6,666,400	\$6,862,600	\$7,064,800	\$7,273,100	\$34,342,700

REVENUE KEY - REVENUE SOURCE	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
GR - Grants / Reimbursements	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
CF - Carry Forward	\$0	\$0	\$0	\$0	\$0	\$0
GF - General Fund	\$5,475,800	\$5,666,400	\$5,862,600	\$6,064,800	\$6,273,100	\$29,342,700
REVENUE TOTAL	\$6,475,800	\$6,666,400	\$6,862,600	\$7,064,800	\$7,273,100	\$34,342,700

NOTE: Collier County has adopted a two-year Concurrency Management System. Figures provided for years three, four and five of this Schedule of Capital Improvements are not part of the Concurrency Management System but must be financially feasible with a dedicated revenue source or an alternative revenue source if the dedicated revenue source is not realized. Figures provided for years six through ten of the Schedule of Capital Improvements are estimates of revenues versus project costs but do not constitute a long term concurrency system.

**Capital Improvement Element Amendment
Submittal**

“Exhibit A” & “Exhibit H”

EXHIBIT "A"
COLLIER COUNTY SCHEDULE OF CAPITAL IMPROVEMENTS
 FISCAL YEARS 2011-2015

STORMWATER MANAGEMENT PROJECTS								
		CONSTRUCTION	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT	
CIE #	PROJECT	SCHEDULE NOTES	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
			TOTAL					
510185	Freedom Park (Gordon R.) Water Qlty Monitoring & Exotic Veg. Control	10-14M/C	\$100,000	\$50,000	\$50,000	\$50,000	\$50,000	\$300,000
511011	Lely Area (LASIP)	10-14D/C/R	\$5,404,200	\$4,600,000	\$4,600,000	\$4,800,000	\$4,000,000	\$23,404,200
518031	Gateway Triangle	Completed in 2010 - CRA Funding	\$0	\$0	\$0	\$0	\$0	\$0
510059	Belle Meade Stormwater Improvements	14D	\$0	\$0	\$0	\$0	\$950,000	\$950,000
51143	Immokalee Urban Improvements	Transferred to CDD in 2010	\$0	\$0	\$0	\$0	\$0	\$0
	Improve ment & Maintenance Project Work Program		\$0	\$0	\$0	\$0	\$0	\$0
	Debt Service		\$939,500	\$939,500	\$939,500	\$939,500	\$939,500	\$4,697,500
	Contingency		\$0	\$0	\$0	\$0	\$0	\$0
	STORMWATER MANAGEMENT PROJECT TOTALS		\$6,443,700	\$5,589,500	\$5,589,500	\$5,789,500	\$5,939,500	\$29,351,700

REVENUE KEY - REVENUE SOURCE	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TOTAL
GR - Grants / Reimbursements	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
CF - Carry Forward	\$1,172,300	\$0	\$0	\$0	\$0	\$1,172,300
RR - Revenue Reserve	(\$52,500)	\$0	\$0	\$0	\$0	(\$52,500)
IN - Interest Revenue	\$50,000	\$0	\$0	\$0	\$0	\$50,000
GF - General Fund	\$4,273,900	\$4,589,500	\$4,589,500	\$4,789,500	\$4,939,500	\$23,181,900
REVENUE TOTAL	\$6,443,700	\$5,589,500	\$5,589,500	\$5,789,500	\$5,939,500	\$29,351,700

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FISCAL YEARS 2016-2020**

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CIE #	PROJECT	SCHEDULE NOTES	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
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STORMWATER MANAGEMENT PROJECT TOTALS			\$6,475,800	\$6,666,400	\$6,862,600	\$7,064,800	\$7,273,100	\$34,342,700

REVENUE KEY - REVENUE SOURCE	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
GR - Grants / Reimbursements	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
CF - Carry Forward	\$0	\$0	\$0	\$0	\$0	\$0
CRA - Community Redevelopment Area / Municipal Service Taxing Unit	\$0	\$0	\$0	\$0	\$0	\$0
GF - General Fund	\$5,475,800	\$5,666,400	\$5,862,600	\$6,064,800	\$6,273,100	\$29,342,700
REVENUE TOTAL	\$6,475,800	\$6,666,400	\$6,862,600	\$7,064,800	\$7,273,100	\$34,342,700

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