# Stormwater Management Sub-Element – BCC Transmittal Hearing

# Goal, Objectives and Policies Public Facilities Element/Drainage Sub-Element (DS-E)

# GOALS, OBJECTIVES AND POLICIES DRAINAGE SUB-ELEMENT

[Revised text, page 3]

GOAL: [Rephrased to improve format as a "goal", revised text, page 3] COLLIER COUNTY SHALL TO PROVIDE STORMWATER MANAGEMENT FACILITIES AND SERVICES FOR DRAINAGE AND FLOOD PROTECTION FOR EXISTING AND FUTURE DEVELOPMENT, MINIMIZE THE DEGRADATION OF QUALITY OF RECEIVING WATERS AND SURROUNDING NATURAL AREAS AND PROTECT THE FUNCTIONS OF NATURAL GROUNDWATER AQUIFER RECHARGE AREAS.

# **OBJECTIVE 1** (CAPITAL FACILITY PLANNING FOR DRAINAGE SYSTEMS):

[Rephrased to improve format as an "objective", revised text, page 3] The County shall u Utilize the Annual Update and Inventory Report on Public Facilities (AUIR) process to update the Drainage Atlas Maps County Geographic Information System and Channel/Structure Inventory components of the adopted Water Management Master Plan and to verify the existing watershed basin boundaries within Collier County. The County will also verify the design storm capacity of the drainage facilities within each basin, and determine the costs necessary to maintain the facility capacities to selected design storm standards. This information shall be used to program operational funds in the Annual County Budget and to identify necessary capital projects and basin studies in the Annual Capital Improvement Element U update and A amendment.

\*\*\* \*\*\* \*\*\* \*\*\* text break \*\*\* \*\*\* \*\*\* \*\*\*

# Policy 1.2:

[Revised text, page 3]

County drainage system <u>and stormwater management network</u> capital facility planning shall be designed to implement procedures and projects in a manner to ensure that adequate stormwater management facility capacity is available at the time a development permit is issued, or that such capacity will be available when needed to serve the development.

# Policy 1.3: [Revised text, page 3]

The County shall continue to develop public drainage facilities <u>and stormwater management network</u>, which maintain the groundwater table as a source of recharge for the County's potable water aquifers, provide a source of irrigation water for agricultural, horticultural and golf course operations and provide water to native vegetation.

\*\*\* \*\*\* \*\*\* \*\*\* text break \*\*\* \*\*\* \*\*\* \*\*\*

Words underlined are added; words struck through are deleted.

Stormwater Management Sub-Element – BCC Transmittal Hearing

**OBJECTIVE 2:** Rephrased to improve format as an "objective", revised text, page 4] The County shall m Maintain adopted drainage level of service standards for basins and subbasins identified in the Water Management Master Plan. Maintenance of the drainage level of service (LOS) identified for each basin will be implemented through the watershed management planning process identified within Goal 2 of the Conservation and Coastal Management Element of this Growth Management Plan.

Policy 2.1: [Revised text, pages 4, 5, 6]

The following levels of service for drainage are hereby adopted for the purpose of issuing development permits. Upon completion of each associated Watershed Management Plan, the level of service will be modified, if warranted.

- A. Future "private" developments water quantity and quality standards as specified in Collier County Ordinance Numbers 74-50, 90-10 and 2001-27, and Land Development Code Ordinance Number 2004-41, as amended.
- B. Existing "private" developments and existing or future public drainage facilities those existing Levels of Service identified (by design storm return frequency event) by the completed Water Management Master Plan as follows:

#### LEVELS OF SERVICE ATTAINED BY BASINS

BASIN	<del>LEVEL OF</del>
	<b>SERVICE</b>
MAIN GOLDEN GATE SYSTEM	
Main Golden Gate Canal Basin	Đ
Cypress Canal Basin	Đ
Harvey Canal Basin	Đ
I-75 Canal Basin	Đ
Green Canal Basin	$\epsilon$
Airport Road Canal South Basin	Đ
Corkscrew Canal Basin	Đ
Orange Tree Canal Basin	Đ
951 Canal Central Basin	$\epsilon$
DISTRICT NO. 6 SYSTEM	
Rock Creek Basin	Đ
C-4 Canal Basin	$\epsilon$
Lely Main Canal Basin	Đ
Lely Canal Branch Basin	Đ
Lely Manor Canal Basin	Đ
Haldeman Creek Basin	Đ
Winter Park Outlet Basin	Đ
COCOHATCHEE RIVER SYSTEM	
Cocohatchee River Basin	Ð

Words underlined are added; words struck through are deleted.

Stormwater Managem	ent Sub-Element -	<ul> <li>BCC Transmittal</li> </ul>	Hearing
--------------------	-------------------	-------------------------------------	---------

Pine Ridge Canal Basin	C
Palm River Canal Basin	Đ
West Branch Cocohatchee River Basin	$\epsilon$
East Branch Cocohatchee River Basin	Đ
Airport Road Canal North Basin	Đ
951 Canal North Basin	Đ
GORDON RIVER EXTENSION	
Gordon River Extension Basin	Đ
Goodlette Frank Road Ditch Basin	Đ
HENDERSON CREEK BASIN	
Henderson Creek Basin	Đ

#### **LEVELS OF SERVICE ATTAINED BY BASINS**

LEVEL OF SERVICE
Đ
Đ
$\mathbf{c}$
$\epsilon$
Ð
Ð
$\epsilon$
Ð
$\mathbf{c}$
$\mathbf{c}$
<del>ND</del>

# Policy 2.1:

The levels of service standards (LOSS) for drainage facilities and stormwater management systems appear in Policy 1.5; subsection "C" in the Capital Improvement Element.

Ð

***	***	***	***	***	text break	***	***	***	***	***
-----	-----	-----	-----	-----	------------	-----	-----	-----	-----	-----

**OBJECTIVE 3:** [Rephrased to improve format as an "objective", revised text, page 6] The County shall m Maintain and annually update a five-year schedule of capital improvements for water management facilities in conformance with the annual review process described within the Capital Improvement Element of the Growth Management Plan.

**Corkscrew Slough Basin** 

Policy 3.4: [Revised text, page 6]

County improvements to, and maintenance of, existing drainage facilities shall be a priority over new construction projects in the urban and estates designated areas. (exclusive of Southern Golden Gate Estates is no longer open to development, so no facilities have priority there).

**OBJECTIVE 4:** [Rephrased to improve format as an "objective", revised text, pages 6, 7] The County shall d Develop and maintain policies and programs to correct existing deficiencies and to provide for future facility needs in accordance with the annual work program referenced in the adopted Water Management Master Plan.

Policy 4.1: [Revised text, page 7]

Water management projects shall be undertaken in accordance with the schedule provided in the Capital Improvement Element of this Plan. These projects shall be undertaken in coordination with the Big Cypress Basin/South Florida Water Management District 5 Year Plan.

County capital stormwater management projects shall be undertaken in accordance with the schedule provided in the Capital Improvement Element of this Plan. These projects shall be undertaken in coordination with the Big Cypress Basin Strategic Plan.

Policy 4.2: [Revised text, page 7]

Collier County shall correct existing deficiencies and provide for future water management facility needs through the formulation and implementation of an annual work programs. In order to implement the annual work program, the County shall encourage the use of innovative funding mechanisms including, but not limited to special taxing or assessment districts.

Policy 4.3: [Revised text, page 7]

The County shall develop and maintain a stormwater management public awareness program, which will include, but not necessarily be limited to, a Collier County Stormwater Management website. The primary purpose of this program shall be to provide information regarding the County's stormwater management programs to the general public including, but not limited to, the environmental enhancements that will result from the use of total water management concepts within the existing drainage and stormwater management network.

**OBJECTIVE 5:** [Rephrased to improve format as an "objective", revised text, page 7] The County shall continue to r Regulate land use and development in a manner that protects the functions of natural drainage features, the stormwater management network and natural groundwater aquifer recharge areas. Implementation of this Objective will be consistent with the Watershed Management Planning process identified within Goal 2 of the Conservation and Coastal Management Element of the Growth Management Plan, and with relevant provisions contained within the adopted Land Development Code (Ordinance Number 2004-41, as amended).

Words underlined are added; words struck through are deleted.

\*\*\* \*\*\* \*\*\* \*\*\* text break \*\*\* \*\*\* \*\*\* \*\*\*

# **Policy 5.2:**

[Revised text, page 7]

Based upon the periodic review described in Policy 5.1, the County shall develop any appropriate new ordinances and regulations that are necessary to ensure protection of the functions of natural drainage features, the stormwater management network and natural groundwater aquifer recharge areas.

**OBJECTIVE 6:** [Rephrased to improve format as an "objective", revised text, page 7] The County shall p Protect the functions of natural drainage features through the application of standards that address the quality and quantity of discharge from stormwater management systems. Implementation of this Objective will be consistent with the watershed management planning process identified within Goal 2 and Objective 2.1 of the Conservation and Coastal Management Element of the Growth Management Plan. This objective is made measurable through the following policies:

\*\*\* \*\*\* \*\*\* \*\*\* text break \*\*\* \*\*\* \*\*\* \*\*\*

### Policy 6.2:

[Revised text, page 8]

Collier County's retention and detention requirements shall be the same as one hundred and fifty percent (150%) of those provided in the South Florida Water Management District's Basis of Review Environmental Resource Permit Information Manual, Volume IV, 2009, as it existed at the time of project approval.

# Policy 6.3:

[Revised text, pages 8, 9]

Allowable off-site discharge rates shall be computed using a storm event of 3 day duration and 25 year return frequency. The allowable off-site discharge rates are as follows:

a.	Airport Road North Sub-Basin	0.04 cfs/acre
	(North of Vanderbilt Beach Road)	
b.	Airport Road South Sub-basin	0.06 cfs/acre
	(South of Vanderbilt Beach Road)	
c.	Cocohatchee Canal Basin	0.04 cfs/acre
d.	Lely Canal Basin	0.06 cfs/acre
e.	Harvey Basin	0.055 cfs/acre
f.	Wiggins Pass Basin	0.13 cfs/acre
g.	All other areas	0.15 cfs/acre

The County may exempt projects from these allowable off-site discharge rates if any of the following applies:

- 1. The project is exempt from allowable off-site discharge limitations pursuant to Section 40E-400.315, FAC.
- 2. The project is part of an existing SFWMD permit, which allows discharge rates different than from those listed above.
- 3. It can be documented that the project currently discharges off-site at a rate higher than those listed above <u>do</u>. The documentation required for this purpose shall be prepared by a registered professional engineer, and will consist of an engineering study which utilizes the applicable criteria in the "SFWMD <u>Basis of Review for Environmental Resource Permit Applications Environmental Resource Permit Information Manual, Volume IV, 2009</u>". The study shall be subject to review and approval by the County and SFWMD staff. The study shall include the following site-specific information:
  - a. Topography
  - b. Soil types and soil storage volume
  - c. Vegetation types
  - d. Antecedent conditions
  - e. Design rainfall hydrograph
  - f. Depression storage capacity
  - g. Receiving water hydrograph, and
  - h. Other relevant, appropriate and professionally accepted hydrologic and hydraulic data.

Using the above information, a hydrologic and hydraulic model shall be developed which demonstrates the higher off-site discharge rate.

EAR Exhibit A-Stormwater Management Sub-E – BCC Transmittal FINAL updated to April 25, 2012
G:\CDES Planning Services\Comprehensive\2011 EAR-BASED GMP AMENDMENTS\Post-BCC transmittal - EAR-based GMPAs\Exhibit A Drainage per BCC Approval - EAR-based Amendments - 4-25-12.docx