CITY OF NAPLES
PROPOSED STORMWATER MANAGEMENT ORDINANCE

Submitted by:
COLLIER BUILDING INDUSTRY ASSOCIATION
STORMWATER TASK FORCE

Summary:
The attached tables are a compilation of professional input on proposed stormwater management changes in the City of Naples. The professionals listed below have shared their time, expertise, resources and research with City staff over the past several months.

Members:

Christian Andrea, RLA, ASLA- Principal, Architectural Land Design, Inc.
Blair Foley, PE-Blair A. Foley, PE, LLC
Falconer Jones-Falcon Design Inc.
Jon Kukk, AIA-Kukk Architecture & Design, P.A.
Chris Mitchell, P.E.-JR Evans Engineering

Kathy Curatolo,-CBIA Consulting Legislative Liaison
Amelia Vasquez-CBIA Executive Director

Current Goal	Proposed Code	Comments	Opinion
Increase the number of properties with stormwater management systems to reduce flooding and improve water quality throughout the City.	Increase Current Stormwater management requirement, by effectively doubling current stormwater standards.	• Agreed this will create a measurable benefit on future development.	This is good.
	Require a reduction amount of pavement in the front yard to either 30% of impermeable pavement, or if greater, 10% impermeable 40% permeable paver systems.	• This is a possible solution, but should be discretionary and not be required. The storm water standards will produce the same amount of outfall and water treatment as a system with or without a permeable drive. Goal is to provide an enhanced level of water quality and discharge , which is achieved by the stormwater ordinance.	This requires further Study. Dont believe this will change run off. It is a tool that can be implemented to effect water management of a site.
	As part of the reduction of pavement, the thought is to limit how much turf is allowed to occur in the front yard. Currently proposed is 50% of remaining non paved areas would be limited to sod, the remaining areas would need to be shrubs and groundcovers.	• Properties are being required to retain their water at twice the current rate, which reduces run off. • We have done some random studies, and find that on average we are closer to 70% turf and 30% shrubs on current design, but there are a lot of variables. Variables include lot size, varying setbacks, design intent?	This requires further Study. If we want to prohibit fertilizer language should be geared towards that.There may be organic means available to manage and treat lawns.
	Triggers of Stormwater		
	• Building Permit for New Construction.	Agreed that new construction requires compliance with new code.	This is good.
	• Increase of Impervious areas	We believe this is difficult, will not be possible to enact. Adding any amount of pavement including; stepping stone, gutter, ret wall, even a fence or a flagpole is an increase of Impermeable space, triggering the code.	This requires further Study
	Recommend, leaving a threshold of 750 sf before a full scale stormwater standard is required.		This requires further Study
	Recommend a 2 Tier system; Tier 1: Properties that have less than 750 sf increase to impervious.	Suggest installing a berm around the perimeter to capture water from leaving the site prematurely, with minimal disruption and maximum benefit.	This is good.
	Tier 2: Properties that increase impervious by more than 750 sf.	Install full stormwater management system.	This is good.

Proposed Overall Goal

Create a code which reduces amount of future and current contaminants discharging into the bay and gulf that is effective now, and not reliant on future development.

Create Public/ Private partnership to develop solutions that benefit the community now, and going forward.

Analysis

1. Develop Master plan and analysis of what can be done to the current RW swale system.
2. The swale area is a large area of land that is the main area of conveyence from the home sites to the bay and gulf.
3. Swale areas are currently sodded and do not afford effective pre treatment.
4. Have Future Homesites being required to increase their level of water management.
5. Incentivize current homeowners to increase their ability to reduce how much water is discharged. Likely solution is to construct 6-8" berm around the perimeter of their properties.
6. Develop education program for homeowners so they understand the value of effective water management, fertilizer placement, etc, on the environment, and what role they can play.

Possible solutions:

Private Sector

- Increase water storage on both new homeowners and existing homeowners.
- New homeowners to comply with new stormwater ordinance.
- Existing homesites to try to reduce their discharge.

Public Sector

- Develop a study of what can be done to create immediate improvements to the current discharges.
- Increase swale depth to store more water.
- Create a system to slow water in the bay/ gulf.
- Educate homeowners that standing water in swales is part of the water management system, and not signs of a flooding problem.
- Create exfiltration in the swales by adding french drains to the bottom of swales.
- Allowing the use of culvert pipes or hybrid culverts to allow driveways to travel over the pipe. Currently drives are designed to travel thru the swale, limiting the depth of the swale, and leading to driveways being covered in water too frequently.
- Consider opportunities to create filter marshes, or other pre treatment areas.
- Encourage use of permeable systems in roadways and alleys within the city.

* The RW area represents a very large area within the city. (Maybe as high as 20-25%)