

# Resilient Cocoa: Resiliency Action Plan

January 26, 2021

Presented by Jennifer Riggs as agenda item.  
Cocoa City Council Meeting

# Why Did Cocoa Get Grants for a Resiliency Action Plan?

In 2015, the Florida Legislature passed Senate Bill 1094, titled “Peril of Flood.” The new law, which became effective July 1, 2015, specifies new requirements for the coastal management element of a local government’s comprehensive plan related to coastal flooding and the related impacts of sea level rise.

Why is this legislation is important:

1. FEMA is not going keep insuring built environments on known flood zones and at risk properties.
2. For communities to maintain their bond ratings they are going to have to show smart adaptations to reasonable risk profiles of flooding whether due to storm events or sea level rise.

# What does “Peril of Flood” Say?

Section 163.3178(2)(f), Florida Statutes as follows:

A redevelopment component that outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:

1. Include development and redevelopment principles, strategies, and engineering solutions that **reduce the flood risk** in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.
2. Encourage the use of best practices development and redevelopment principles, strategies, and engineering solutions that will result in the **removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency.**
3. Identify site development techniques and best practices that may **reduce losses due to flooding and claims made under flood insurance policies issued in this state.**
4. Be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable flood plain management regulations set forth in 44 C.F.R. part 60.
5. Require that any construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.
6. Encourage local governments to participate in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for their residents.

# Why is it Important to Proactively Improve Resilience?

Within 30 years Brevard County and Cocoa appear likely to experience flooding risks: increased frequency and intensity/volume of storms, storm surge, sea level rise.

Today flooding risks are masked. FEMA's flood maps only account for present day flood risks.

- 1. There are risks to health and safety.**
- 2. There are risks to real property and the built environment.**
- 3. Cocoa's population has areas of high vulnerability: Look at Social/Vulnerability Analysis, Resilient Cocoa pg 5.**
- 4. There are Financial Risks for City!!!**

# More on Financial Risks:

## Reasons to Proactively Improve Resilience

### **1. Not a gentle glide path, but an abrupt cliff: property values**

As the real estate market adjusts its perception of risk, the shift is likely to happen abruptly and accompany an irreversible decline in the value of homes and commercial properties.

### **2. Vicious Cycle: decline in tax revenues, decline in bond ratings, decline in ability to afford to become more resilient**

Declining property values will impact local tax revenues and the ability of communities to adapt their infrastructures. Communities may find it harder to raise funds for increasing their resilience to floods -- through the bond market, for instance -- if their credit rating is lowered because of flood risks.

For communities to maintain credit-worthiness and access to the capital needed for infrastructure adaptation/investment, they will need to increasingly show they have already made smart decisions and investments to adapt and build resilience. (Moody's Investors Services 2017).

### **3. Insurability????**

Flood insurance for chronically inundated coastal properties could become increasingly expensive -- or not available at all (FEMA 2018; Dixon et al. 2017; Lieberman 2017; GAO 2017). A rash of coastal foreclosures and abandoned homes could ensue causing neighborhood blight. . . .even as new real estate wealth is potentially created further inland.

# Resiliency Recommendations

## Align Well with Cocoa's Sustainability Plan Priorities!

The Sustainability Advisory Board reviewed the plan and identified five areas where recommendations align well. These fall in five main groupings. The following list is not exhaustive.

### 1. Pursue Funding Mechanisms for Resiliency Projects

LS-2, 1: Identify possible funding mechanisms to finance resiliency projects

ES-4, 1: Apply for funding opportunities that help finance resiliency projects such as onsite stormwater management, living shorelines, acquiring land that serves as greenspace buffers.

### 2. Living Shorelines and Green Infrastructure

LS-3: Determine where living shorelines are appropriate and prioritize implementation.

**Strangely, there is nothing about canopy inventory, management and expansion.**

### 3. Greenspace and Mitigation

LS-2, 4: Work with stakeholders to assess process for acquiring properties for greenspace and mitigation purposes.

IE-3, 4: Assess properties for potential acquisition for greenspace, public space, and flood mitigation.

# Resiliency Recommendations

## Align Well with Sustainability Plan Priorities!

### **4. Update City Codes**

LS-3, 1 and 6: Update City's Land Development Code to require onsite storm water management and adopt best practices to mitigate heat island effect.

IE-5, 4: Update land development code to require all new development to design for a net zero discharge of natural runoff.

ID5-1: Audit Comp Plan against other plans to ensure compatibility of addressing resiliency and future development based on future conditions.

IE-5, 5: Adopt urban design guidelines that could protect and buffer structures from the impacts of vulnerabilities such as sea level rise, storm surge, flooding, wind damage, and the urban heat island effect.

IE-6, 1: Update Comp Plan and code to ensure all affordable and low income housing is located outside the 100-year flood zone and (Coastal Community Services Area -???)

### **5. Communication and Education**

LS-4, 2: Educate elected officials about the City's primary vulnerabilities and hazard mitigation strategies.

ES-1, 2: Work with the community to identify local business such as gas stations, food suppliers or other that provide specific services or resources vital for recovery (water, sandbag distribution).

ES-4, 6: Create an outreach plan to involve all communities in the City to engage in local decisions.

IE-1, 1: Create partnerships to educate property owners about the benefits of green infrastructure, living shorelines, oyster matts, etc.

HW-1, 6: Establish a community wide pre-hurricane protocol and alert for identifying and removing hazards (preparing, shelter, and evacuation).

# Building Resilience is Important for Cocoa's Prosperity

1. Cocoa has three distinct areas with high vulnerability to flood.
2. Cocoa has large areas with high Social Vulnerability Index scores.
3. FEMA is not going keep insuring buildings on known flood zones and at risk properties.
4. For communities to maintain their bond ratings they are going to have to show smart adaptations to reasonable risk profiles of flooding whether due to storm events or sea level rise.
5. Resilient Cocoa's recommendations align well with Cocoa's Sustainability Plan priorities!

Adopting "Resilient Cocoa" is a benefit for the residents and prosperity of Cocoa.