



Seeing Opportunity in Challenge Coastal Stormwater Management in 2019

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JonesEdmunds

Special Thanks

- Earl King, CRS Max Consultants
- Ralph Wall, City of West Palm Beach

What is the CRS Program?

- CRS = Community Rating System
- Administered by FEMA's National Flood Insurance Program (NFIP)
- In Florida – Administered by the Florida Department of Emergency Management (FDEM)
- VOLUNTARY – recognizes and encourages communities that exceed the requirements as outlined by the NFIP



What is the Official Mission of The CRS Program?

1. Reduce flood damage to insurable property
2. Strengthen and support the insurance aspects of the NFIP
3. Encourage comprehensive floodplain management



Benefits to Communities for Participating

- Reduced flood insurance rates for high risk flood risk areas
- Enhanced ability to apply for FEMA grants
- All of the benefits that can be connected to reducing flooding and having good floodplain management practices
 - Health and safety
 - Reduced property damage
 - Improved ecology and water quality
 - Increasing adaptive capacity
- It is a POSITIVE story to tell the press and stakeholders

Schedule for Insurance Discounts

CRS Class	Credit Points	Premium Reduction	
		In SFHA	Outside SFHA
1	4500+	45%	10%
2	4000 - 4499	40%	10%
3	3500 - 3999	35%	10%
4	3000 - 3499	30%	10%
5	2500 - 2999	25%	10%
6	2000 - 2499	20%	10%
7	1500 - 1999	15%	5%
8	1000 - 1499	10%	5%
9	500 - 999	5%	5%
10	0 - 499	0%	0%

Preferred Risk Policies are not eligible for CRS premium discounts because they already have premiums lower than other policies. Preferred Risk Policies are only available in B, C and X zones for properties that are shown to have a minimal risk of flood damage.

Some minus-rated policies may not be eligible for CRS premium discounts.

Premium discounts are subject to change.

<https://www.nassaucountyfl.com/782/Community-Rating-System-CRS>

FEMA Knows Rivers

- Understandably, FEMA's paradigm is riverine systems in areas with greater topographic relief
- Some Proof:
 - FEMA Nomenclature, Modeling Paradigms
 - FEMA has fewer reviewers that understand Florida's de-ranged and blended hydrology versus riverine hydrology
 - Activity 410: Under the CRS Program, you only receive specific mapping points for RAISING base flood elevations regardless of methodology

A Sampling of the Highest CRS Ratings in the US (2016)

- Roseville, California (1)
- Fort Collins, Colorado (2)
- Tulsa, Oklahoma (2)
- Ocala, Florida (3) 😎
- Thurston County, Washington (2)
- Pierce County, Washington (2)
- King County, Washington (2)
- Highest Coastal Rating in Florida = Class 5

Meanwhile in Florida...



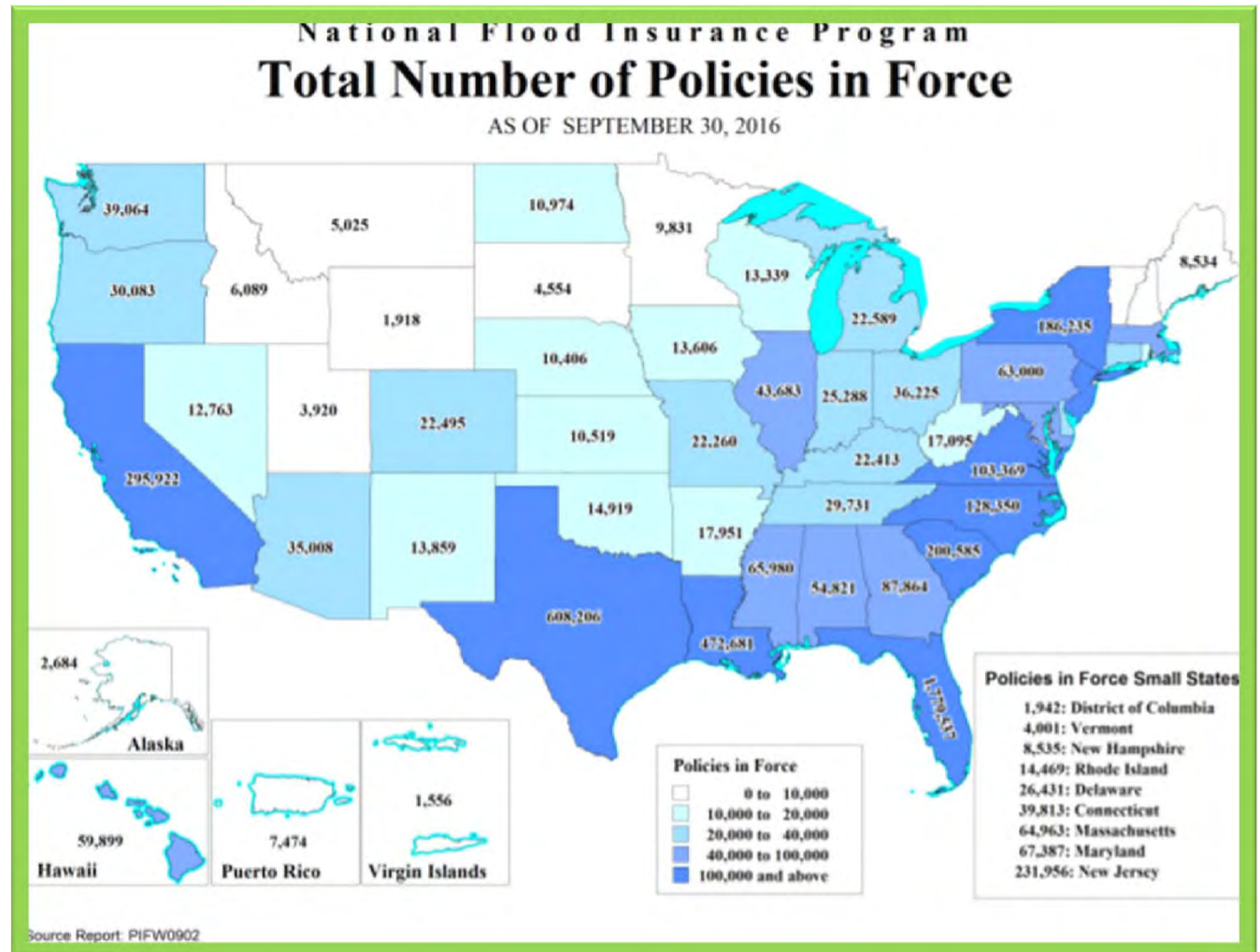
#GrowingUpFloridian riding my pet alligator through the orange groves on my way to publix and Disney world

7/19/15, 11:09 PM

Florida Carries The NFIP

By three
times any
other
state...

1,779,537
policies in
Florida



We Have Our Own Hydrology and Challenges



<https://www.sfwmd.gov/who-we-are>



<https://earthobservatory.nasa.gov/images/4818/elevation-of-southern-florida>

But...What is Left off the Page Can Become the Toughest Obstacle

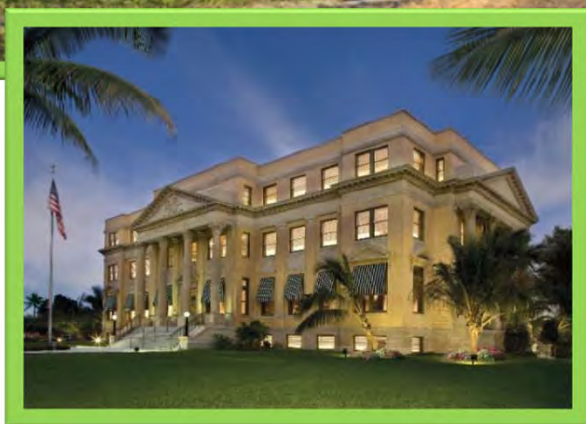
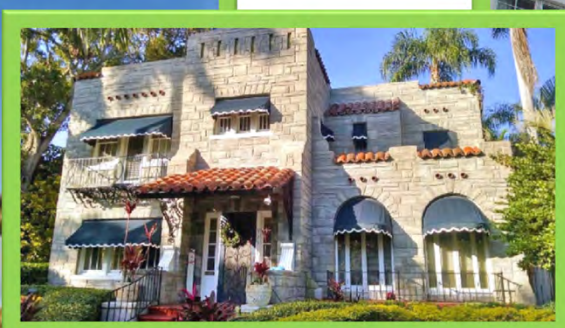
- Prerequisites for ratings beyond a Class 5 are virtually impossible to achieve in some coastal communities
 - Set by a small group of hydrologists – outside the southeast
- Activity 450:
 - under Activity 420 (Open Space Preservation).
 - (b) Activity 450 (Stormwater Management)—The community must receive the following credits for its watershed management plan(s) (WMP) under Section 451.b:
 - (i) WMP1: 90 points (before the impact adjustment) for meeting all of the credit criteria for WMP,
 - (ii) WMP2: 30 points (before the impact adjustment) for managing the runoff from all storms up to and including the 100-year event to ensure that flood flows downstream of new development do not increase due to the development, and
 - (iii) An impact adjustment value of $rWMP = 0.5$ or more. Alternatively, the community may show that at least 50% of the watershed area where future growth is expected is covered by one or more credited watershed management plans.
 - (c) Activity 510 (Floodplain Management Planning)—The community must have adopted and be implementing a floodplain management plan that receives at least 50% of the maximum credit under Activity 510, calculated after the impact adjustment. This 50% of the maximum credit must include at least 50% of the available points in each of planning steps 2, 5, and 8.
 - (4) Obtain a minimum total credit of 100 points (after the impact adjustment) from one or

Coastal Class 5's in Florida

- Miami-Dade County
- Volusia County
- City of West Palm Beach
- Lee County
- Pinellas County
- City of St. Pete
- St. Johns County
- Sarasota County
- City of Sanibel
- Santa Rosa County
- City of Punta Gorda
- City of Port Orange
- Town of Ponce Inlet
- City of Palm Coast
- Palm Beach County
- Okaloosa County
- Town of Miami Lakes
- City of Marco Island
- Manatee County
- Town of Longboat Key
- Hillsborough County
- Hernando County
- City of Dunedin
- Collier County
- Citrus County
- Charlotte County
- City of Cape Coral
- Bay County
- City of Anna Maria

But...What is Left off the Page Can Become the Toughest Obstacle

- Many of our Florida coastal communities are HISTORICAL and addressing flooding is more challenging



But...What is Left off the Page Can Become the Toughest Obstacle

- Our flood maps are flawed – some more than others
- The CRS Program relies on our maps down to the parcel level

But...What is Left off the Page Can Become the Toughest Obstacle

- Sometime the program doesn't align to where our biggest burning coastal issues are at the moment
 - Sea level rise is only mildly and loosely addressed
 - The program does not align with other significant regulatory pressures – like your MS4 permit
 - Many aspects of our Florida stormwater programs are not included and other non-Florida issues are emphasized

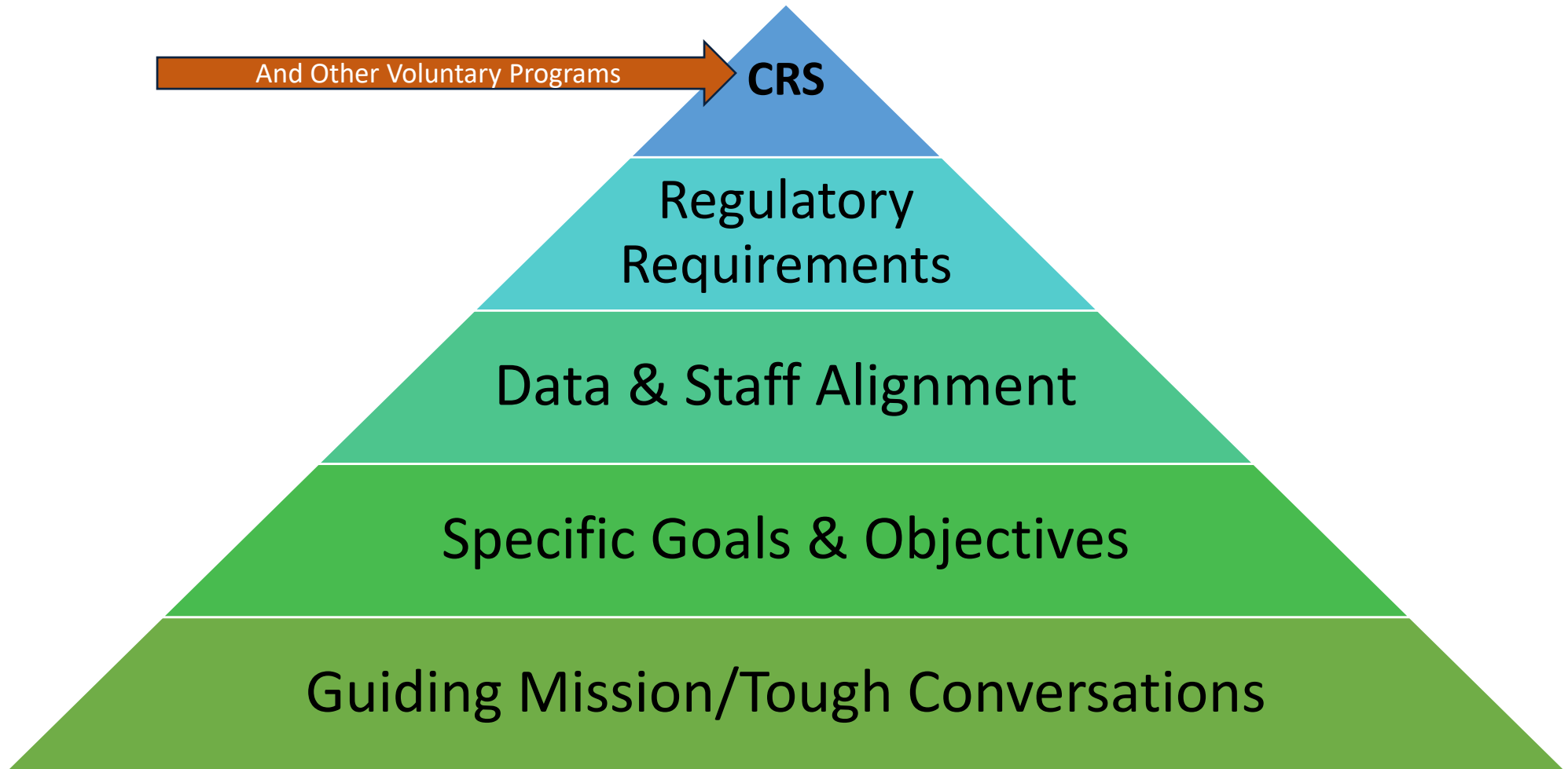
Extensive Cooperation is Required



Photo Credit: Fernleaf Interactive/West Palm Beach

- Utilities
- Engineering
- Public Works
- GIS/IT
- Emergency Planning
- NPDES Coordinators
- Floodplain Manager
- Elected Officials
- Police and Fire
- Sustainability
- Legal
- O&M
- Building Officials
- Planning
- Police and Fire
- Administration
- Historical Planners
- Customer Service

What To Do?



What To Do?

- Remain tuned in to this conversation
 - FDEM is “working on this”
 - Next Manual in 2020
- Spend time to understand your goals as a stormwater program at a higher level
- Remember that good floodplain management and analysis are always the best thing to do

