

CENTRAL AND SOUTH FLORIDA SYSTEM, FLOOD RISK MANAGEMENT STUDY, AND RESILIENCY NEEDS

Joint Palm Beach County Water Resources Task Force
and Broward County Water Advisory Board Workshop

On Behalf of Colonel Drew Kelly, Presented by:

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US Army Corps
of Engineers®





BUILDING COMMUNITY RESILIENCE

A COMPREHENSIVE AND COLLABORATIVE APPROACH



SHARED RESPONSIBILITY

An Effective Resilience-focused Strategy Requires a Coordinated and Integrated Approach Across All Levels of the Public and Private Sectors

- The problems related to climate change are uncertain, broad, and complex
- It is essential to survey and assess relationships among all public and private sector deliverables and capabilities – at local, regional, state and federal levels – to determine the most appropriate and effective packaging of programs, projects, and services to accomplish resilience and sustainability objectives





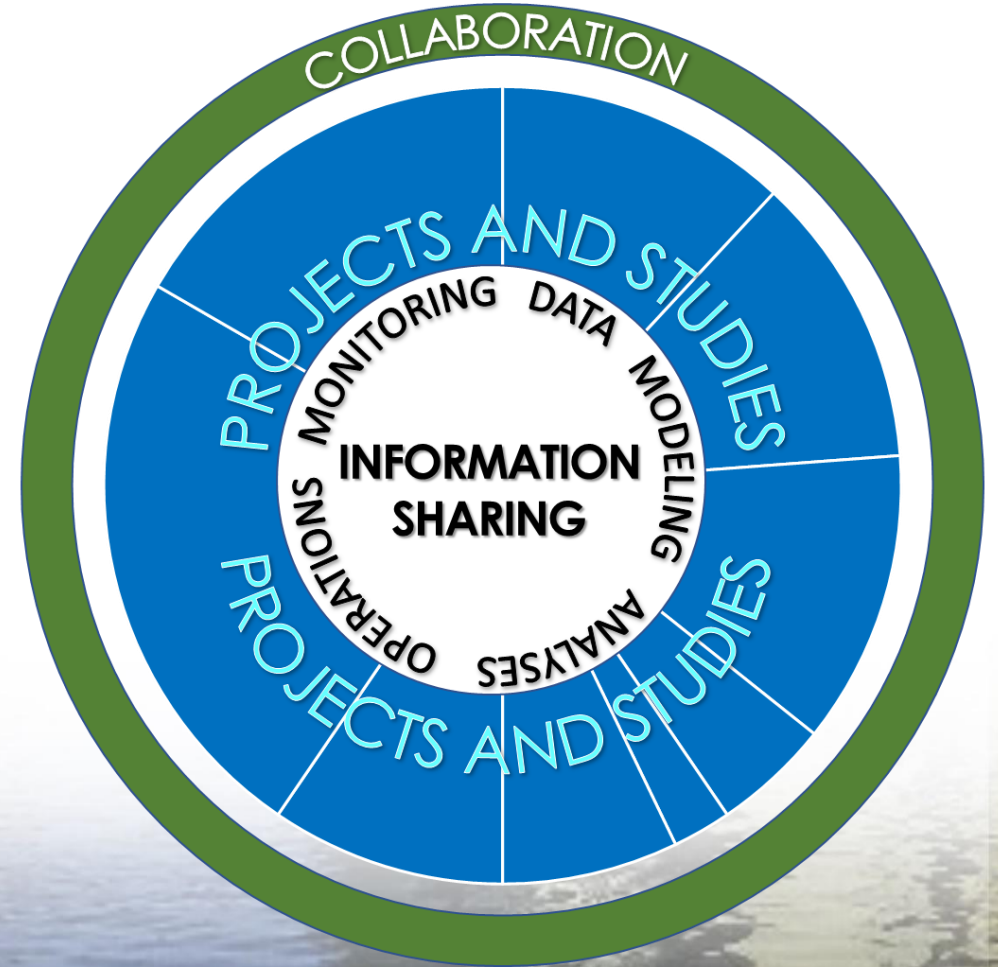
BUILDING COMMUNITY RESILIENCE

A COMPREHENSIVE AND COLLABORATIVE APPROACH

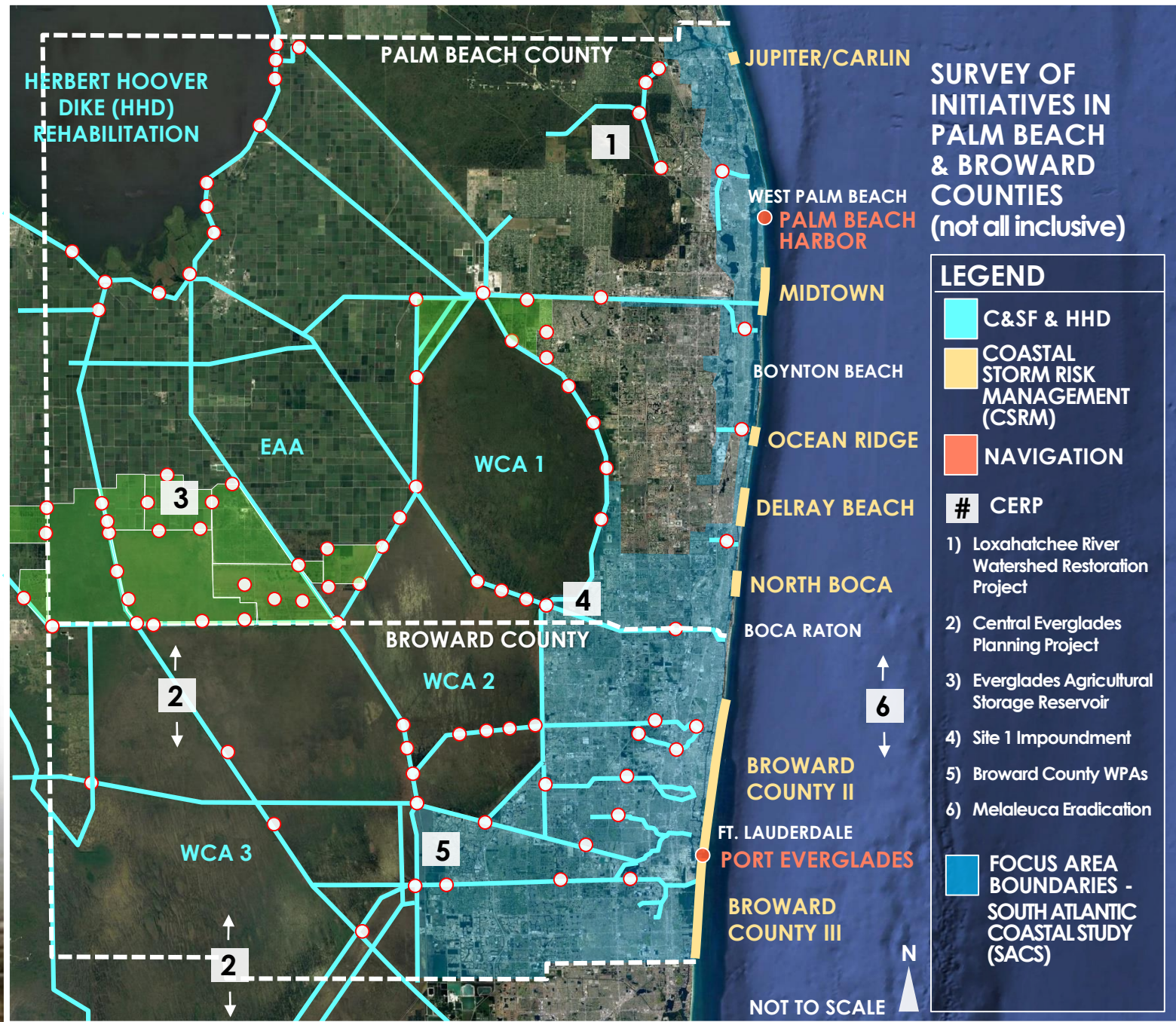


HOW DOES IT ALL FIT TOGETHER?

Collaboration is key to identify and assess impacts, connections, dependencies, relationships, causes, economies of scale, etc. – that are needed to more fully and adaptively plan, implement, integrate, and operate programs and projects for more resilient and sustainable communities in the long term, and in the face of climate change.



The C&SF System is the connector



UNDERSTANDING THE C&SF SYSTEM IS THE KEY

- When you look at this image, what you see depends on your perspective
- Operations of the C&SF are the basis of adaptation – form the context for all other actions

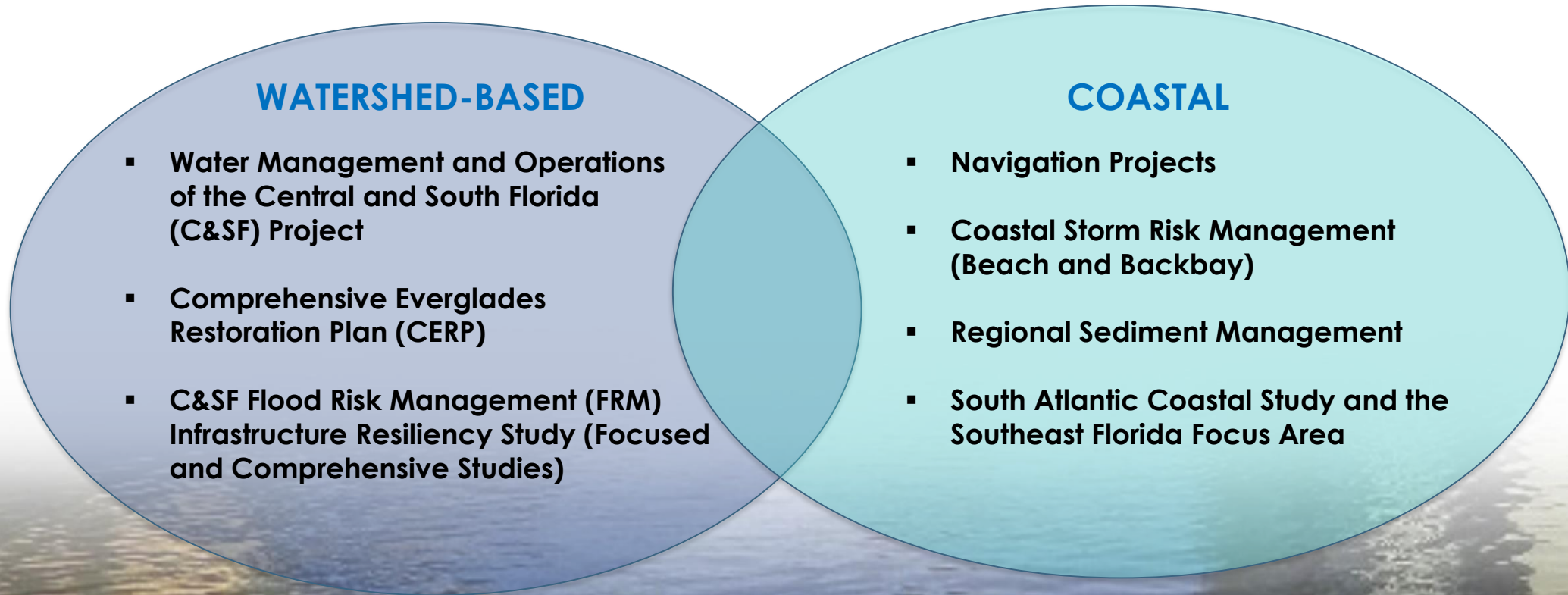


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HOW DOES IT ALL COME TOGETHER?

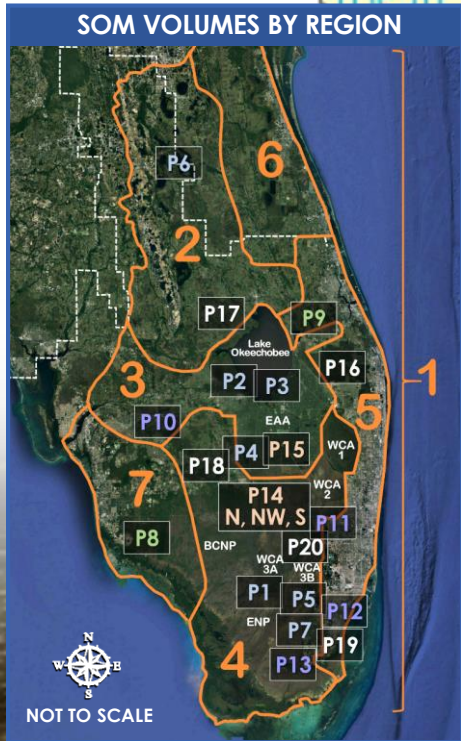
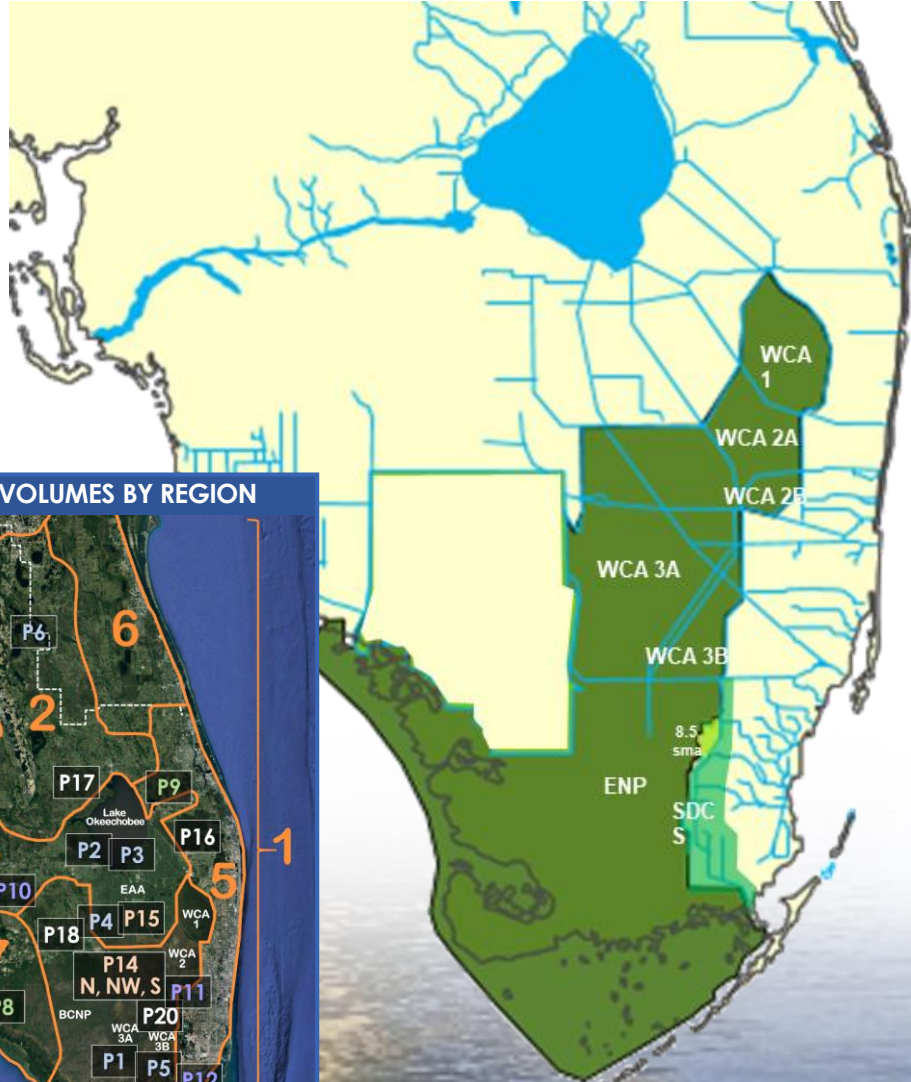


The conditions and operations of the C&SF system, the benefits of CERP, and climate change science will form the context of the C&SF Flood Risk Management Infrastructure Resiliency Study





CENTRAL & SOUTHERN FLORIDA (C&SF) PROJECT



- The System Operating Manual (SOM) for the C&SF consists of 7 volumes
- Organized according to geographical regions
- Provide a system-wide framework for the operation of components of the C&SF Project and CERP projects
- Ensure that projects function in a coordinated, systematic way
- SOM updates are underway in conjunction with CERP implementation (on Integrated Delivery Schedule)
- America's Everglades serve as a natural and nature-based feature that protect the C&SF system which in turn provides flood protection and water supply to millions of Floridians



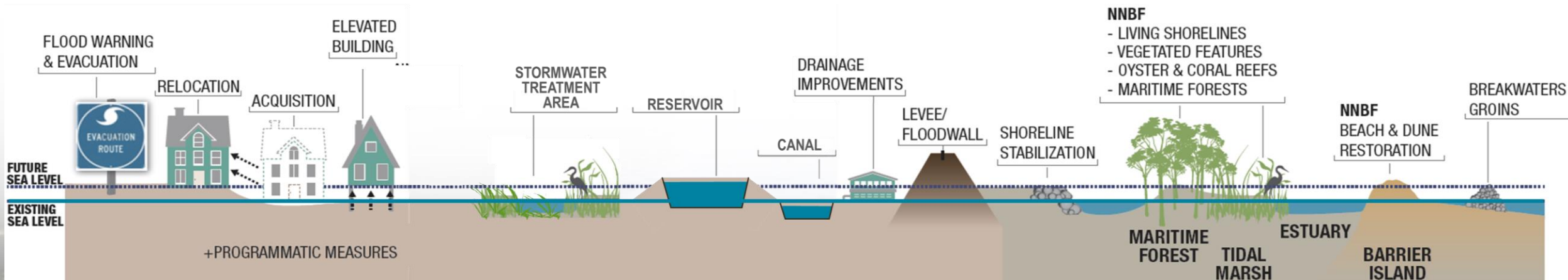
BUILDING COMMUNITY RESILIENCE MEASURES IN ACTION



- ❑ NATURAL
- ❑ STRUCTURAL
- ❑ NATURE-BASED
- ❑ NON-STRUCTURAL

CLIMATE CHANGE ADAPTATION OPPORTUNITIES

Each mission area contributes a collection of measures to combine into projects to help adapt to climate change and render a community more resilient



America's Everglades serve as a natural and nature-based feature that protect the C&SF system which in turn provides flood protection and water supply to millions of Floridians



C&SF OPERATIONS/CURRENT CONDITIONS



Lake Okeechobee and WCAs

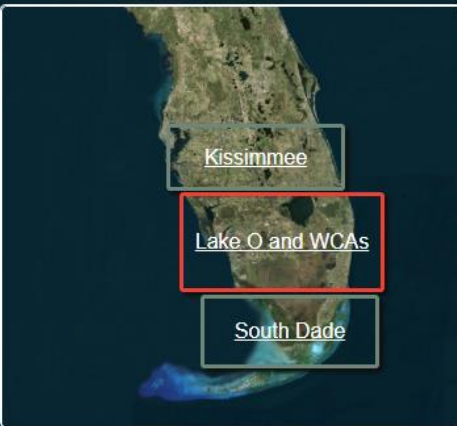
Daily averages for 01 June 2021

Lake Okeechobee stage: 12.82 ft
Previous day: 12.81 ft
One week ago: 13.08 ft
(1965-2007 avg for today): 13.13 ft

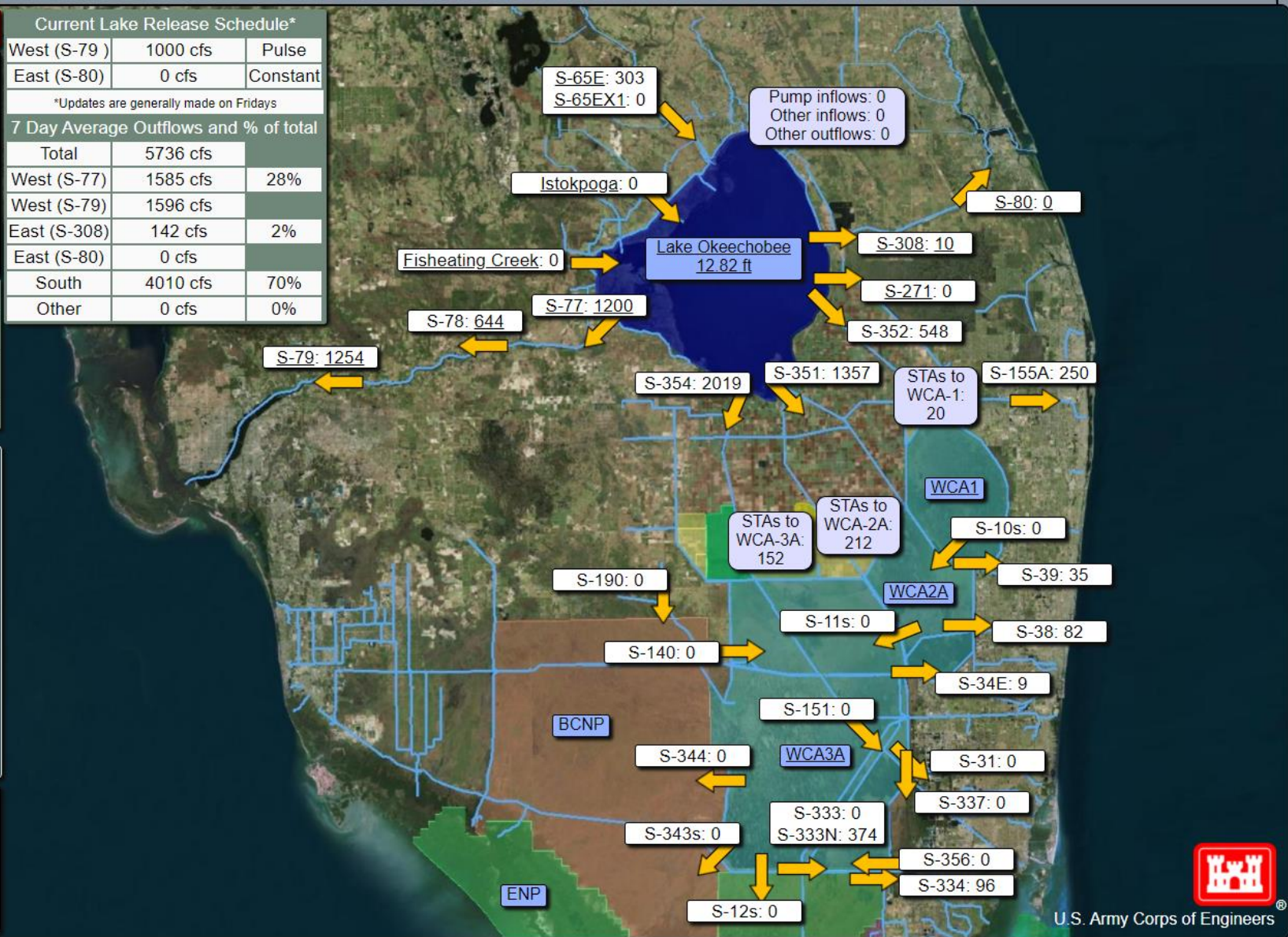
Total Structure/Creek Inflows: 303 cfs
Total Structure Outflow: 5134 cfs
Quick Reference for Map Flows

Current Lake Release Schedule*		
West (S-79)	1000 cfs	Pulse
East (S-80)	0 cfs	Constant
*Updates are generally made on Fridays		
7 Day Average Outflows and % of total		
Total	5736 cfs	
West (S-77)	1585 cfs	28%
West (S-79)	1596 cfs	
East (S-308)	142 cfs	2%
East (S-80)	0 cfs	
South	4010 cfs	70%
Other	0 cfs	0%

Area	Stages (hover for notes)	Schedule
WCA-1	Site 1-8C: 15.31 ft 3-Station: 15.50 ft	15.75 ft
WCA-2A	Site 2-17: 11.30 ft S-11B HW: 10.27 ft	11.00 ft
WCA-3A	3-Station: 8.57 ft	9.50 ft



[Water Management Main Page](#)
[Status Update Archives](#) [WRDA Archives](#)
Elevations are ft-NGVD.
Flows are average daily CFS.
Data is provisional and subject to revision.
Report generated: 01 JUN 2021 @ 14:45



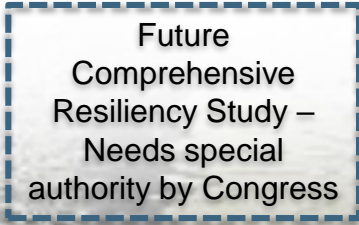
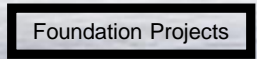
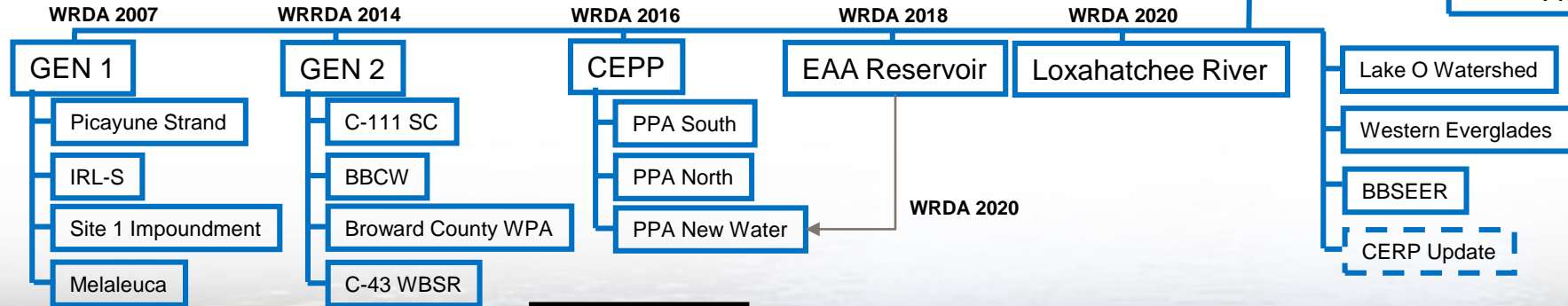
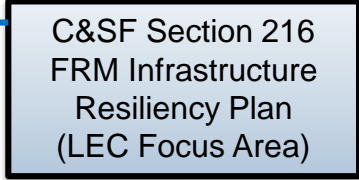
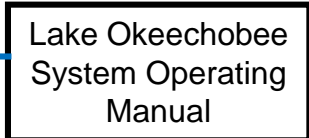
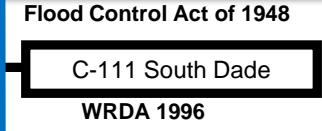
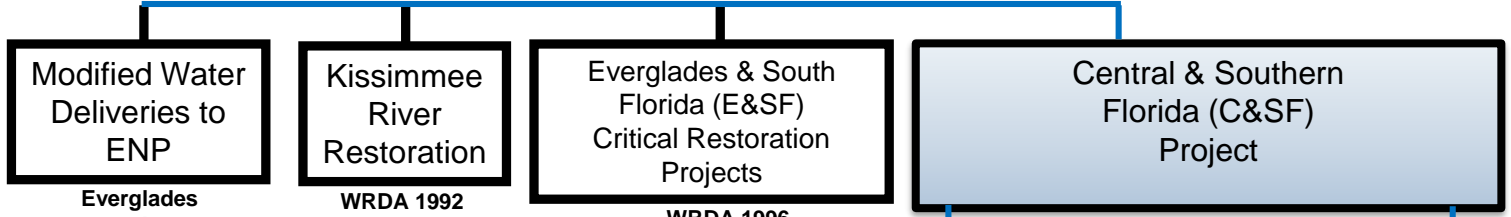


BUILDING COMMUNITY RESILIENCE

C&SF Program – One part of an integrated approach



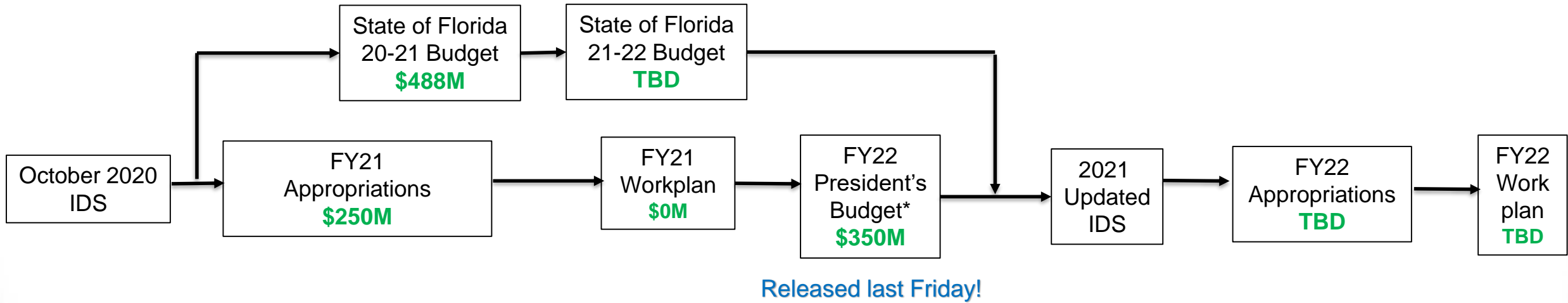
A partnership with South Florida Water Management District (SFWMD)



CERP – Comprehensive Everglades Restoration Plan
GEN – Generation; linked to Authorization
CEPP – Central Everglades Planning Project
Legislation Dates = Original Authorization Date



SOUTH FLORIDA ECOSYSTEM RESTORATION PROGRAM



*Does not include C&SF Infrastructure Resiliency Study



SECTION 216 C&SF FLOOD RISK MANAGEMENT (FRM) INFRASTRUCTURE RESILIENCY STUDY



- **Section 216 C&SF FRM Infrastructure Resiliency Study**
 - **South Florida Water Management District will be the Non-Federal Sponsor**
 - **The study will focus on the project features which can reduce the most immediate risk to changing conditions, and the resilience aspects of such infrastructure in terms of flood vulnerabilities resulting from climate change, sea level rise, and population growth**
 - **Status Update**
 - ▶ **New Start in FY22 PBUD (\$500k Fed) – Investigations, Flood Risk Management (FRM) Business Line**
 - ▶ **FY22 Appropriations Bill by U.S. Congress – next step**
 - ▶ **Target Execution of new Feasibility Cost Sharing Agreement in June 2022**

- **Additional Comprehensive Plan is needed**
 - ▶ **Overall C&SF System**
 - ▶ **Development of hydrologic/rainfall climate change scenarios for Florida**
 - ▶ **Separate study authority is needed from Congress**



THANK YOU

