Central and Southern Florida Flood Resiliency Study
USACE/SFWMD Feasibility Study Cost Share Agreement

Carolina Maran, P.E., Ph.D., District Resiliency Officer
September 8, 2022
Managing Water

Natural Systems

- Lake
- River
- Wetlands
- Estuary
- Groundwater
- Aquifer System
- Spring

- RAINFALL
- RUN OFF
- TRANSPIRATION
- EVAPORATION
- EVAPOTRANSPIRATION

Engineering-Designed Systems

- Water Conservation Areas
- Levee
- Drainage Canal
- Wellfield
- Aquifer System
- Clay and Rock

Source: Broward County

Safeguard and restore water resources & ecosystems
Meet the region's water needs
Protect our communities from flooding

Source: Florida Center for Instructional Technology – University of South Florida

Presenter: Carolina Maran
Central & Southern Florida Project

Presenter: Carolina Maran
Recognizing Changed Conditions

70+yrs Water Management System

Pre-1948 Drainage Projects

Post-1948 C & S Florida Project

LAND DEVELOPMENT & POPULATION GROWTH

Population (million)

1950s 2
2020 8.7
2045* 11.4

* Estimate taken from BEBR 2017 publication (Median, SFWMD boundaries)

CLIMATE CHANGE
Current Limitations in C&SF Operation
Reduction in Discharge Capacity as a Result of SLR

Presenter: Carolina Maran
Reducing the risks of flooding, sea level rise and other climate impacts on water resources and increasing community and ecosystem resiliency in South Florida.
Upcoming study to evaluate existing flood risk management infrastructure and recommend adaptation strategies to build flood resiliency now and into the future, in the communities served by the C&SF system.

To be conducted under Section 216 of the Flood Control Act of 1970.

Cost Share Agreement between USACE and SFWMD (local sponsor) for a 3x3x3 Study.

Focus on the highly vulnerable infrastructure that can reduce the most immediate flood risks due to changing conditions, and the resilience aspects of such infrastructure.

Presenter: Carolina Maran
Feasibility Study Cost Share Agreement

➢ SFWMD agrees to provide 50% cost share for the Study ($1.5M, in kind work)

➢ Estimated time for completion: 2022-2025 (3 years)

➢ Use of the best available science and data in coordination with stakeholders, Federal agencies, State, Tribal and local officials

➢ Leverage results from:
  ▪ SFWMD FPLOS Program
  ▪ USACE SACS, Back Bay and Other Studies

➢ Different instrument than CERP Project Partnership Agreements (PPAs)

Presenter: Carolina Maran
Palm Beach and North Broward Counties Planning Charrette Workshop

Date
Wednesday, September 28, 2022

Time
5:00 p.m. - 7:00 p.m.

Location
DoubleTree by Hilton Hotel
Deerfield Beach / Boca Raton
Hibiscus Room
100 Fairway Drive
Deerfield Beach, FL 33441

South Broward and Miami-Dade Counties Planning Charrette Workshop

Date
Thursday, September 29, 2022

Time
5:00 p.m. - 7:00 p.m.

Location
Florida International University
Biscayne Bay Campus
Wolfe University Center (Room 224A)
3000 NE 151st Street
North Miami, FL 33181
Resolution

A Resolution of the Governing Board of the South Florida Water Management District to support the execution of the Feasibility Study Cost Share Agreement of the Section 216 Central and Southern Florida Flood Risk Management and Resiliency Study, between South Florida Water Management District and the U.S. Department of the Army.
If you’re participating in person – please fill out a comment card and give to a meeting attendant

If you’re participating via Zoom – use the Raise Hand feature

If you’re participating via Phone –
*9 Raises Hand
*6 Mutes/Unmutes
Thanks!

Questions?

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District Resiliency Officer

South Florida Water Management District
www.sfwmd.gov/resiliency