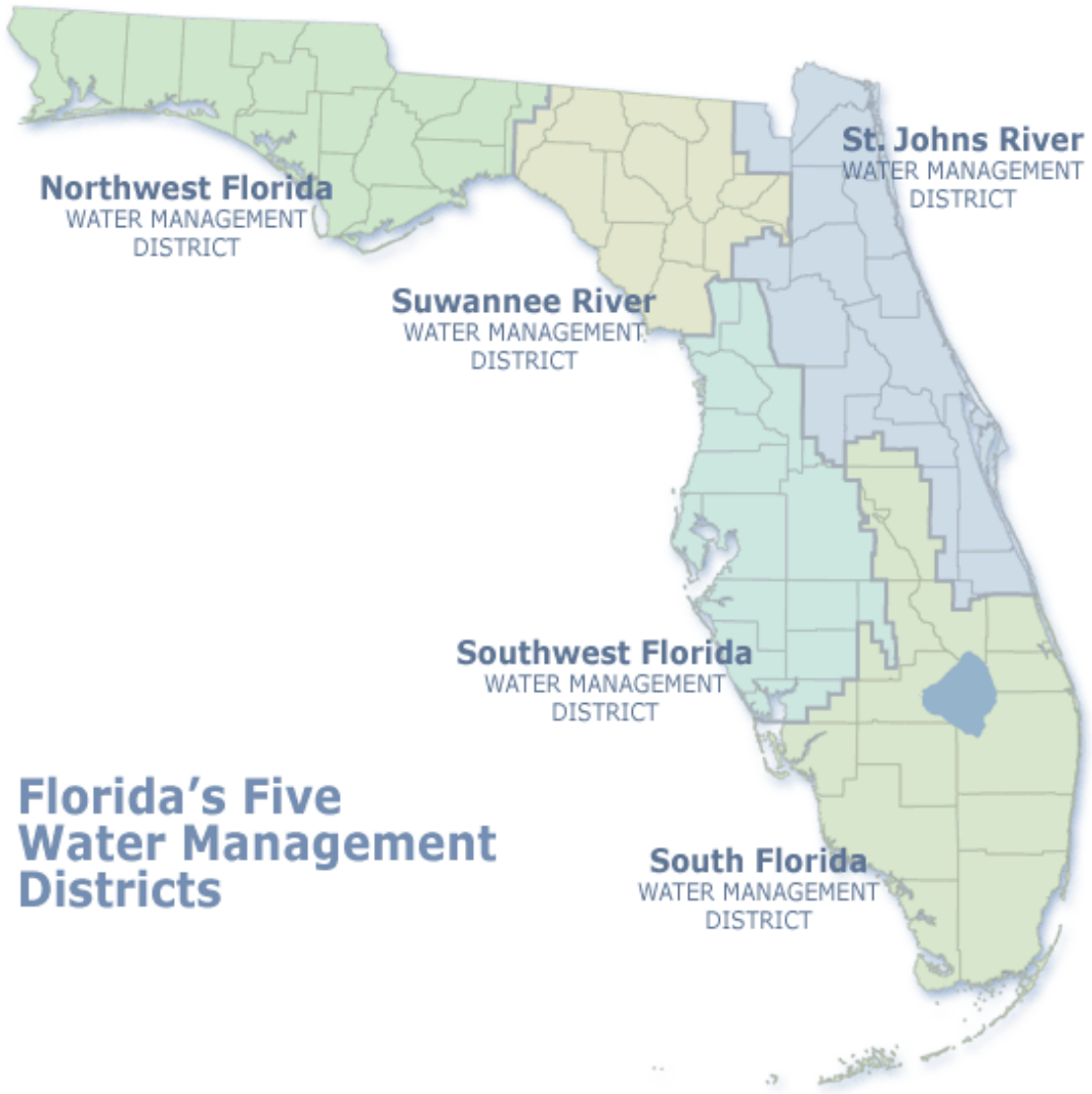
Drew Bartlett, Executive Director

Photo: Greater Fort Lauderdale Convention & Visitors Bureau

Florida's Largest Water Management District

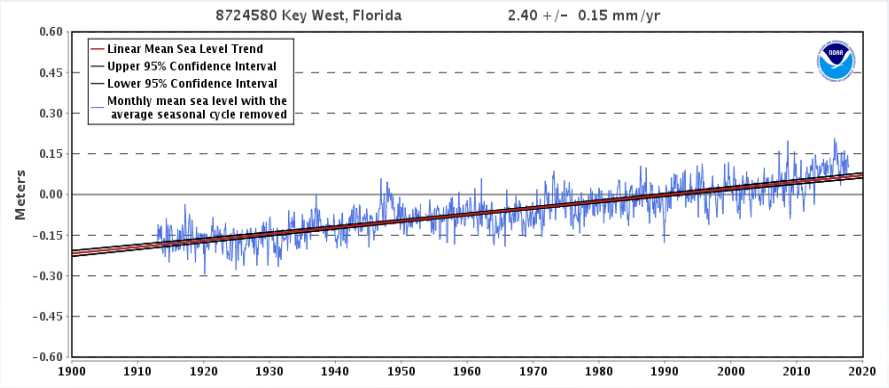


- Broward County
- Collier County
- Glades County
- Hendry County
- Lee County
- Martin County
- Miami-Dade County
- Monroe County
- Palm Beach County
- St. Lucie County

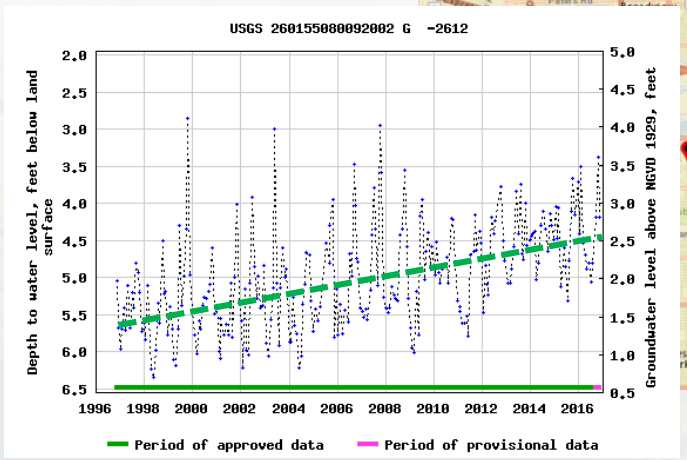
- Portions of Charlotte, Highlands, Okeechobee, Orange, Osceola, and Polk Counties

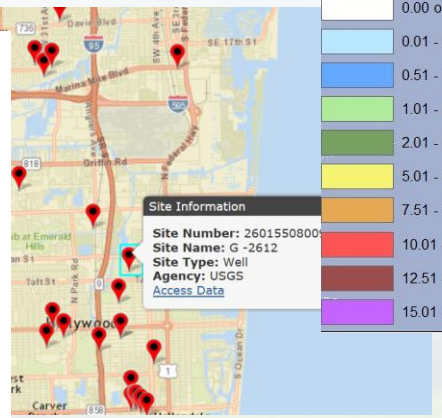
Climate Changed Conditions

SEA LEVEL RISE

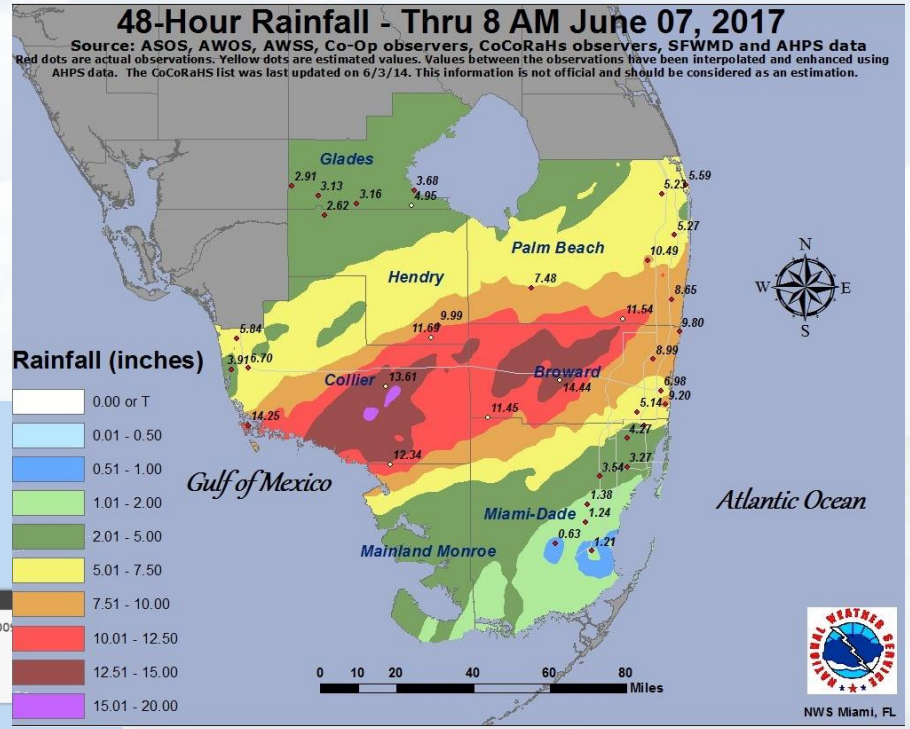


Associated with High Tides





MORE EXTREME RAINFALL



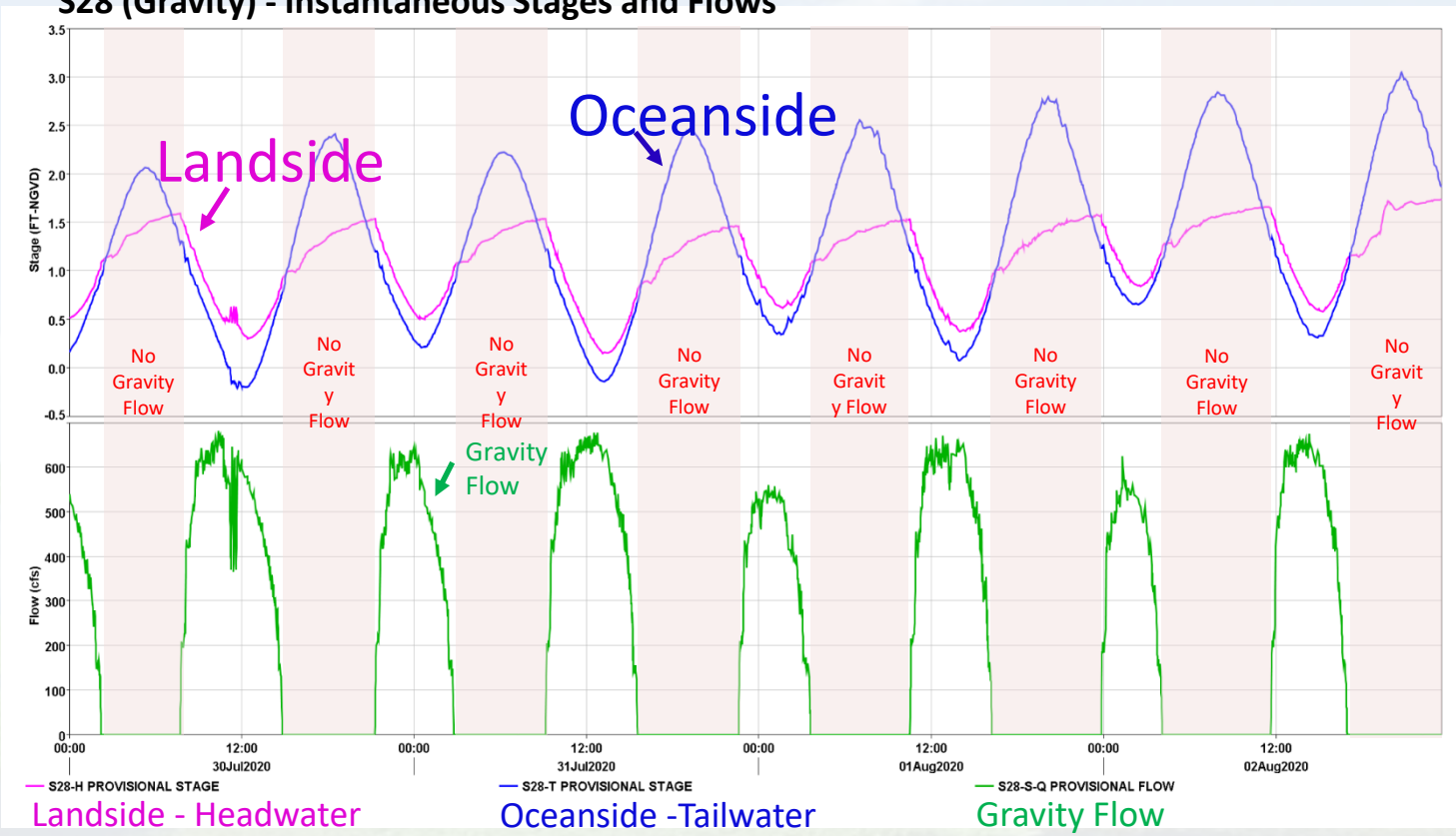
HIGHER GROUNDWATER

Background: Central & Southern Florida Project

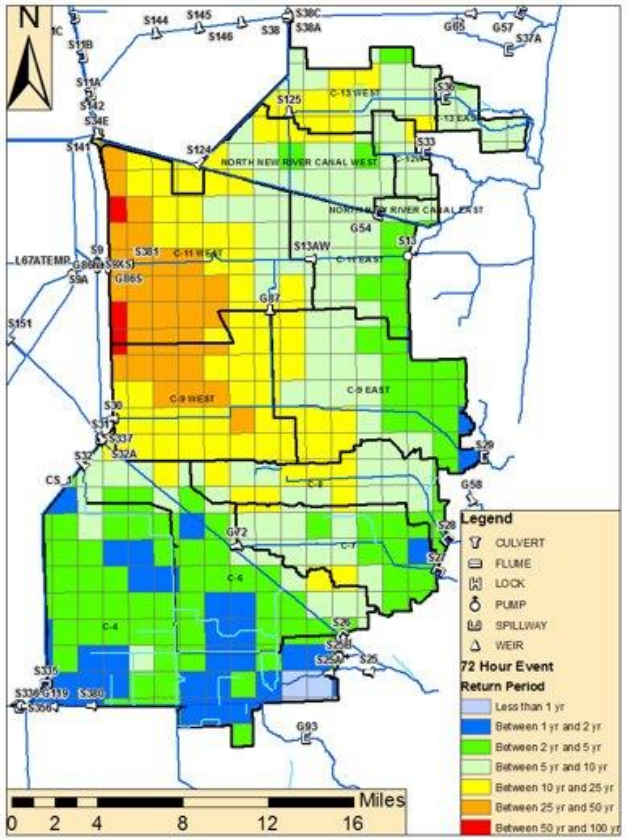
- Flood Control Act of 1948 – Congress authorizes the U.S. Army Corps of Engineers to design and construct water management infrastructure
- Projected to serve a population of 2 million people
- Authorized purposes: flood control, water supply, navigation, prevention of saltwater intrusion, and protection of fish and wildlife resources
- Served as the foundation for the SFWMD

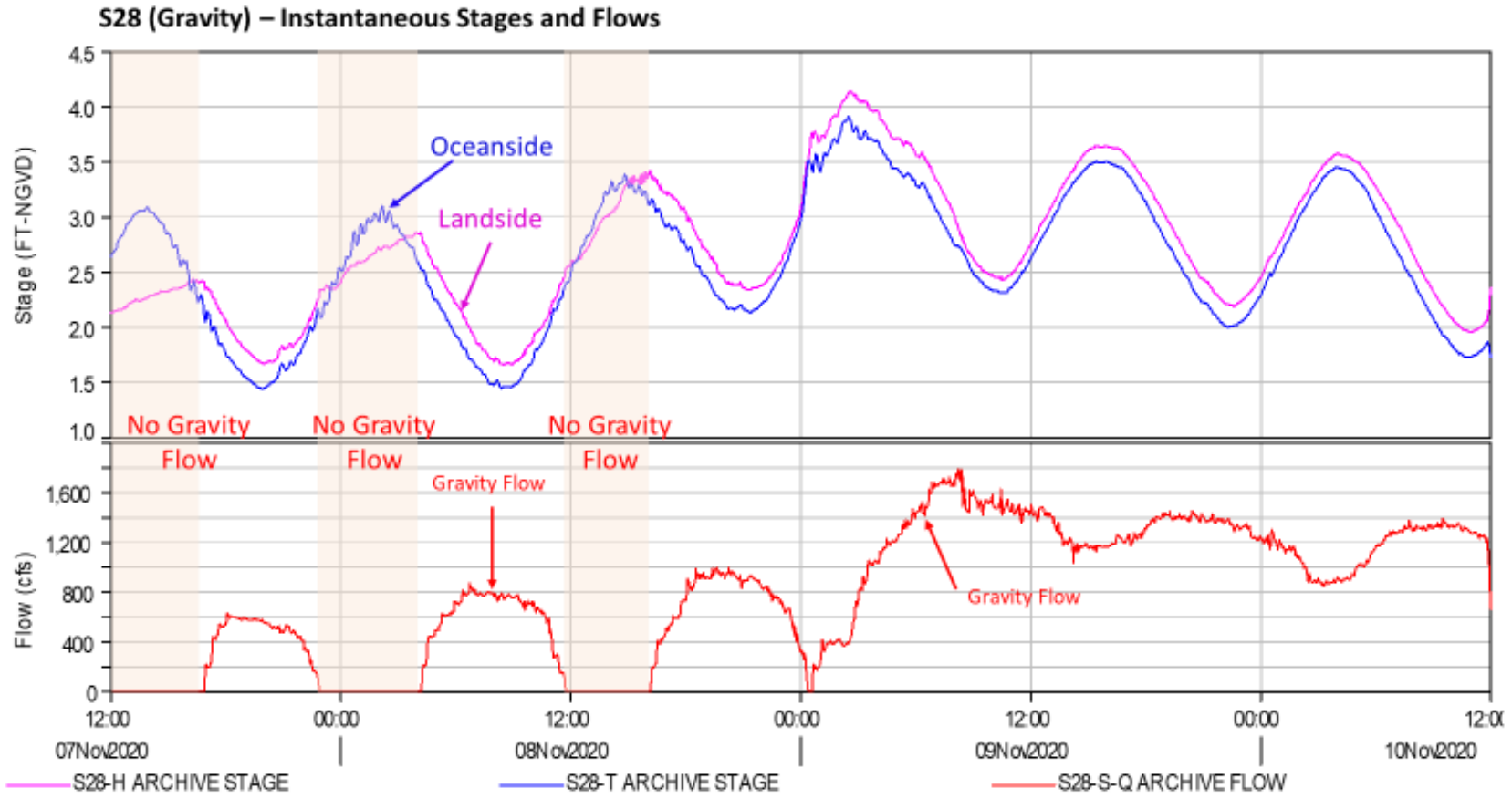
Limitations in Operation

Isaias – Light Rain

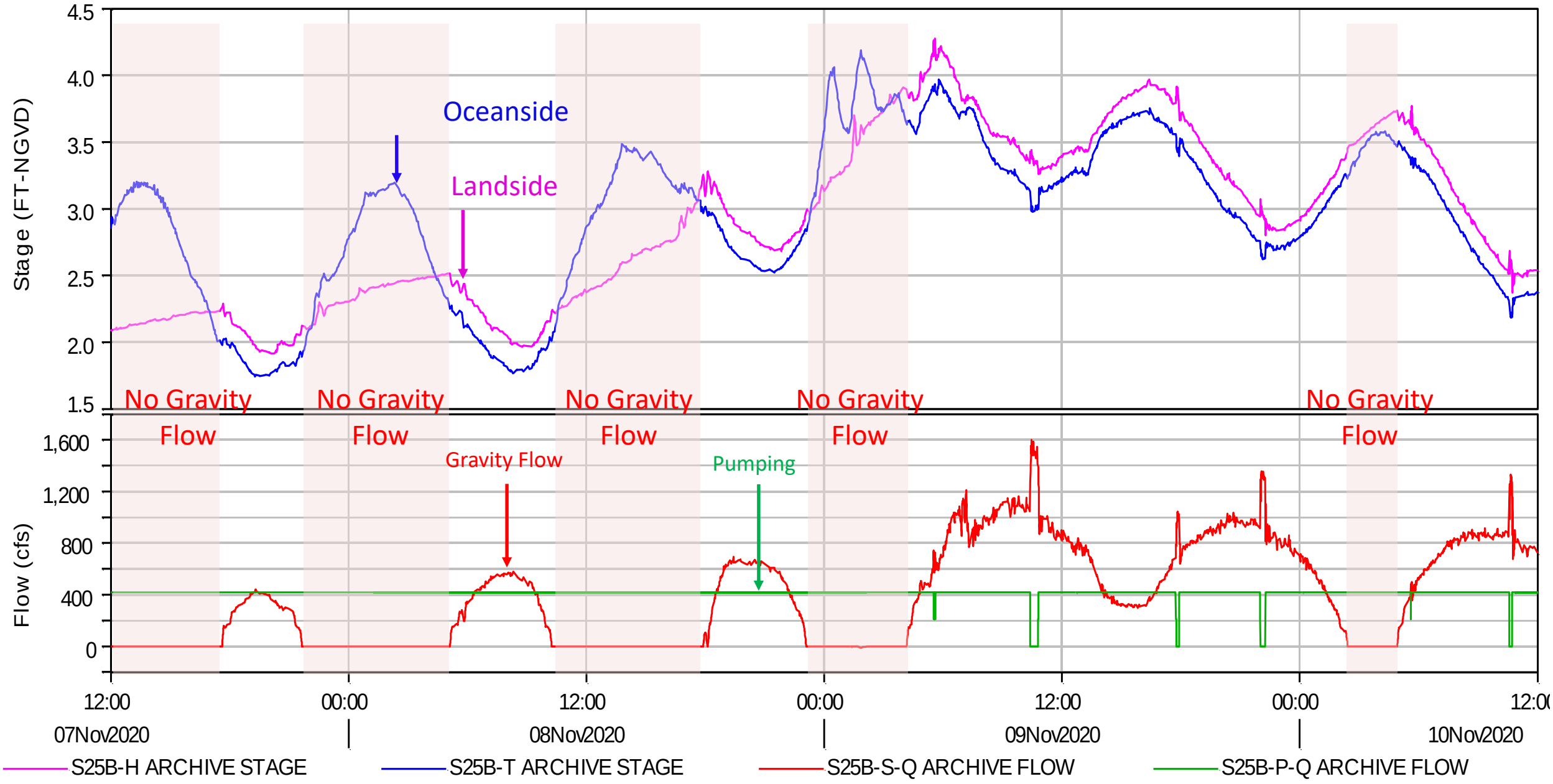


Eta – Heavy Rain

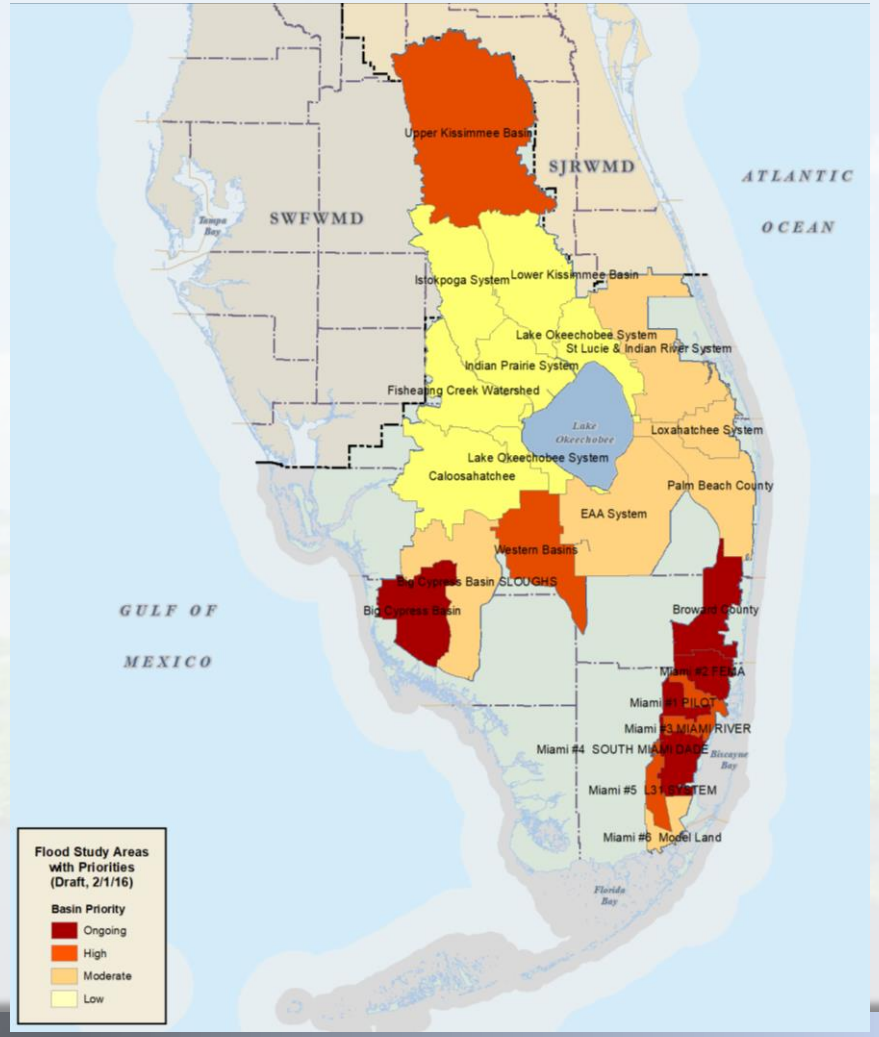




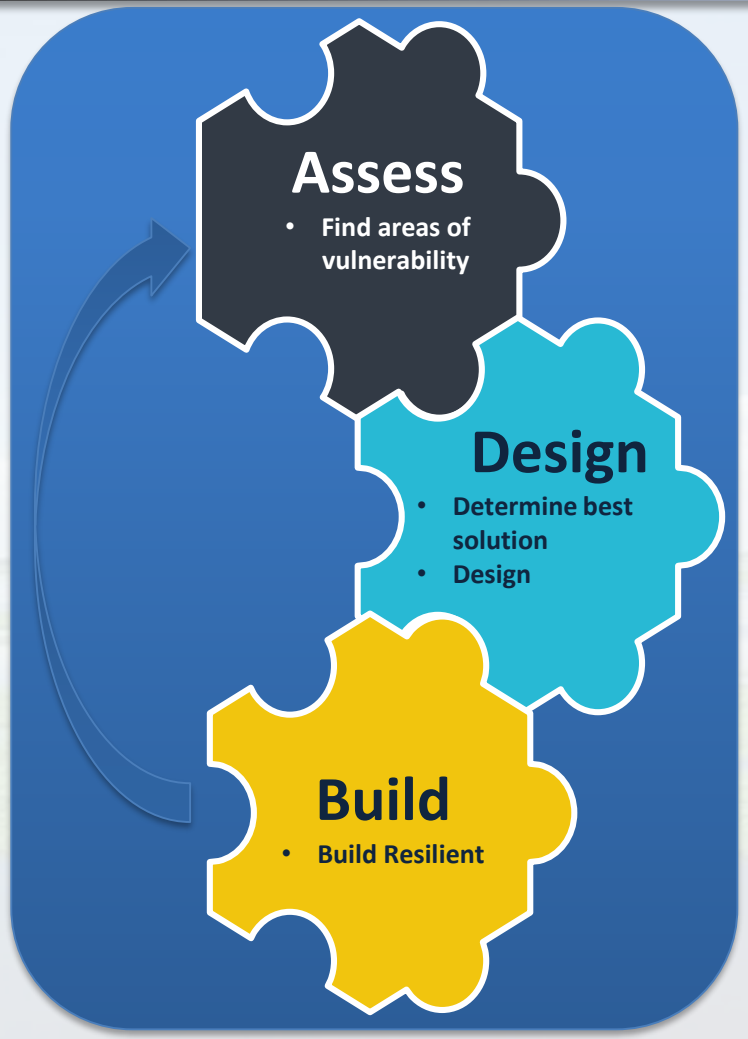
S25B (Gravity and Forward Pump) – Instantaneous Stages and Flows

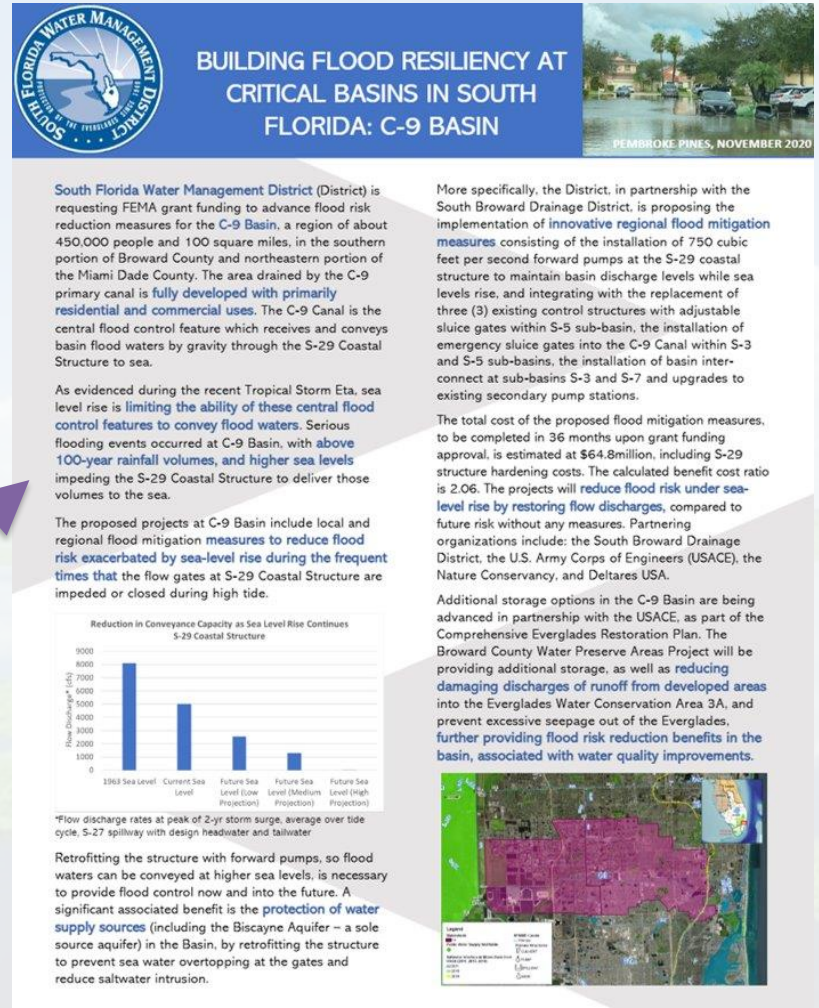


Flood Protection Level of Service Program



Flood Protection Level of Service Program





BUILDING FLOOD RESILIENCY AT CRITICAL BASINS IN SOUTH FLORIDA: C-9 BASIN

PEMBROKE PINES, NOVEMBER 2020

South Florida Water Management District (District) is requesting FEMA grant funding to advance flood risk reduction measures for the C-9 Basin, a region of about 450,000 people and 100 square miles, in the southern portion of Broward County and northeastern portion of the Miami Dade County. The area drained by the C-9 primary canal is fully developed with primarily residential and commercial uses. The C-9 Canal is the central flood control feature which receives and conveys basin flood waters by gravity through the S-29 Coastal Structure to sea.

As evidenced during the recent Tropical Storm Eta, sea level rise is limiting the ability of these central flood control features to convey flood waters. Serious flooding events occurred at C-9 Basin, with above 100-year rainfall volumes, and higher sea levels impeding the S-29 Coastal Structure to deliver those volumes to the sea.

The proposed projects at C-9 Basin include local and regional flood mitigation measures to reduce flood risk exacerbated by sea-level rise during the frequent times that the flow gates at S-29 Coastal Structure are impeded or closed during high tide.

Reduction in Conveyance Capacity as Sea Level Rise Continues S-29 Coastal Structure

*Flow discharge rates at peak of 2-yr storm surge, average over tide cycle, S-27 spillway with design headwater and tailwater

Retrofitting the structure with forward pumps, so flood waters can be conveyed at higher sea levels, is necessary to provide flood control now and into the future. A significant associated benefit is the protection of water supply sources (including the Biscayne Aquifer – a sole source aquifer) in the Basin, by retrofitting the structure to prevent sea water overtopping at the gates and reduce saltwater intrusion.

More specifically, the District, in partnership with the South Broward Drainage District, is proposing the implementation of innovative regional flood mitigation measures consisting of the installation of 750 cubic feet per second forward pumps at the S-29 coastal structure to maintain basin discharge levels while sea levels rise, and integrating with the replacement of three (3) existing control structures with adjustable sluice gates within S-5 sub-basin, the installation of emergency sluice gates into the C-9 Canal within S-3 and S-5 sub-basins, the installation of basin inter-connect at sub-basins S-3 and S-7 and upgrades to existing secondary pump stations.

The total cost of the proposed flood mitigation measures, to be completed in 36 months upon grant funding approval, is estimated at $64.8million, including S-29 structure hardening costs. The calculated benefit cost ratio is 2.06. The projects will reduce flood risk under sea-level rise by restoring flow discharges, compared to future risk without any measures. Partnering organizations include: the South Broward Drainage District, the U.S. Army Corps of Engineers (USACE), the Nature Conservancy, and Deltares USA.

Additional storage options in the C-9 Basin are being advanced in partnership with the USACE, as part of the Comprehensive Everglades Restoration Plan. The Broward County Water Preserve Areas Project will be providing additional storage, as well as reducing damaging discharges of runoff from developed areas into the Everglades Water Conservation Area 3A, and prevent excessive seepage out of the Everglades, further providing flood risk reduction benefits in the basin, associated with water quality improvements.

- FEMA BRIC Proposals: S-29 AND S-27 forward pump and additional basinwide mitigation strategies
- FY21 Budget: Funding to Initiate Design
- Funding Alternatives to advance full implementation
- Looking to increment pump sizes, in partnership with the State

Historic and Largest Florida Flooding and Sea Level Rise Resilience Initiative

- **SB1954: Resilient Florida Program**
- Over $640 million available to support efforts to ensure state and local communities are prepared to deal with the impacts of sea level rise, intensified storms and flooding

Critical C&SF Flood Resiliency Plan

- C&SF Review Study due to changed physical conditions
- Conducted under Section 216 of the Flood Control Act of 1970
- USACE Jacksonville District is completing a 216 Initial Appraisal Report in order to qualify for study funds
- FY22 Regular Budget or FY21 Workplan

Public Interest

United States Senate
WASHINGTON, DC 20510

January 16, 2020

The Honorable R.D. James
Assistant Secretary of the Army – Civil Works
Department of the Army
108 Army Pentagon
Washington, D.C. 20310-0108

Dear Assistant Secretary James:

As you finalize the planning and selection process for the Fiscal Year 2020 (FY20) Work Plan following passage of H.R. 1865, the *Further Consolidated Appropriations Act, 2020*, we request that all proposed and ongoing projects in Florida receive full and fair consideration of their value to local communities, our state, and our nation. Building on our shared progress from FY19, we look forward to working with your office, as well as U.S. Army Corps of Engineers (USACE) Headquarters, South Atlantic Division, and Jacksonville and Mobile District offices, to ensure sufficient resources to fund feasibility studies, preconstruction engineering and design (PED) work, and construction, as warranted throughout Florida. We specifically support funding to allow the below projects to achieve and sustain significant momentum towards completion:

- **C&SF Project Flood Control Restudy*** – *Proposed to improve the efficacy and cost-effectiveness of South Florida's aging water management infrastructure in concert with concurrent efforts to enhance the region's water management and resilience, including through CERP, LOSOM, and the South Atlantic Coastal Study.*

support of these essential projects and ongoing improvements in coordination at all levels of the USACE with non-federal interests in Florida.

Sincerely,

Marco Rubio
U.S. Senator

Rick Scott
U.S. Senator

BROWARD COUNTY FLORIDA
MIAMI-DADE COUNTY

SOUTHEAST FLORIDA REGIONAL COMPACT CLIMATE CHANGE

SOUTHEAST FLORIDA REGIONAL CLIMATE CHANGE COMPACT COUNTIES
2019 FEDERAL LEGISLATIVE PRIORITIES

APPROVED BY THE COMPACT POLICY WORKING GROUP AND STAFF STEERING COMMITTEE OCTOBER 29, 2018

Concerning federal legislation, regulations, and policies, the Compact Counties and other organizations adopting this document:

SUPPORT efforts to reauthorize, improve, and strengthen the National Flood Insurance Program with provisions that limit premium rate increases and protect affordability, encourage greater program participation, expand the Increased Cost of Compliance Program, emphasize and increase funding for mitigation, and develop accurate flood maps.

SUPPORT action by the US Army Corps of Engineers to reassess the Central and South Florida Flood Control Project given changing climate conditions, especially sea level rise.

Resiliency Issues on the Horizon

- There is a problem and there are opportunities
- It will take time and money to solve
- Collaboration is key: solutions span multiple boundaries
- SFWMD is strongly committed to address sea level and other changing climate impacts

Achieving More Now For Florida's Environment Executive Order 19-12

- Prioritized water projects
- Created *Office of Resilience and Coastal Protection*
- Expedited Everglades restoration projects
- Called for funding for Florida's environment

Since Then… Progress and Record Funding

- More than **$2 billion** in water quality and Everglades funding
- **$500 million** to date in Resilient Florida
- **Dozens of projects** completed or broken ground

Thank You

Drew Bartlett, Executive Director
South Florida Water Management District
Drew.Bartlett@sfwmd.gov

Sandhill Crane
Dr. Mark Cook, SFWMD