DRAFT UNTIL ADOPTED BY THE COUNCIL

MEMORANDUM

AGENDA ITEM #IV.F

DATE: MAY 24, 2021

TO: COUNCIL MEMBERS

FROM: STAFF

SUBJECT: AMERICAN RESCUE ACT / REGIONAL FUNDING PRIORITIES

On May 7th, the South Florida Regional Planning Council Executive Committee held a public Council Workshop via GoToMeeting to discuss projects of regional impact identified by Monroe, Miami-Dade, and Broward Counties. This meeting was held in preparation for a future Joint Meeting of the South Florida and Treasure Coast Regional Planning Councils (TCRPC) to discuss whether there are potential joint funded projects that the South Florida and Treasure Coast Regional Planning Council local government members may want to support using American Rescue Plan funding.

At their April 16th Council Meeting, the TCRPC Board discussed the idea that the American Rescue Plan could provide a unique opportunity to pursue those "long desired and great to do but just too big to afford so they never get done" projects. Among the projects they discussed were closing ocean outfalls in Broward and Miami-Dade, biosolids, U.S. 27, and advanced water treatment.

In advance of the May 7th meeting, Council staff reached out to key elected officials and staff to request their assistance in identifying two top priorities that would require assistance from the state and federal government to complete. Chair Bailey requested that these priorities have regional impact and benefit and be related to infrastructure and resiliency.

Although the notice time was short, the meeting was well attended with representatives from each county and project ideas from Miami-Dade and Broward. Consensus was reached to adopt the projects from Miami-Dade and Broward counties and to invite Monroe County to present their priorities at the May 24th Council meeting. The list of projects that were discussed as well as new projects that have been suggested for consideration since the May 7th meeting follow below. Staff has contacted Monroe County staff and is anticipating their response. This item will be updated to reflect Monroe County's input when received.

PROJECT NAME	PROPOSED BY	REGIONAL IMPORTANCE	ESTIMATED COST
CS&F Flood Risk Management & Resilience Study CONSENSUS *SFWMD Flood Protection Level of Service (FPLOS) Program*	Broward County	Review the CS&F Project to evaluate external changes to the landscape and propose solutions to address the challenges. ********** The C&SF Project was authorized by Congress in 1948 – more than 70 years ago – and has served as an invaluable contributor to the economic success of south Florida. The CS&F system is under substantial stress due to changes in the physical environment, including increased rainfall intensity and sea level rise. Without a functioning flood control system, more of south Florida's citizens, economy, and broader environment will be at risk. It is essential that the C&SF Project be reviewed to evaluate these external changes to the landscape and propose solutions to address the challenges.	$6 million to start; estimated $20 million (potentially reimbursable if declared a New Start)
Septic to Sewer Conversion	Broward County	City of Hollywood Sanitary, Lauderdale by the Sea, etc. sewer and septic conversation needs	$420 million
Tri-Rail Coastal Link CONSENSUS	Broward County	Advancing the Tri-Rail Coastal Link	
Septic to Sewer Conversion Estimated 13,500 that will be impacted by rising groundwater by 2040 with SLR CONSENSUS	Miami-Dade County	Expand sewer service to areas that are lacking sanitary sewer infrastructure and are most vulnerable to septic system compromise or failure from rising groundwater. these systems are located throughout the County, with significant concentrations near canals and rivers that discharge into Biscayne Bay.	$700 million to expand the sanitary sewer system to connect the most vulnerable parcels will include the installation of wastewater pump stations required to manage the new flow, main lines, plumbing of private parcels, the removal of septic tanks, roadway work, engagement and outreach, and other efforts necessary to achieve connection.

SMART Plan North Corridor	Miami-Dade County	To connect Miami-Dade and Broward County by rail on NW 27th Avenue	At least $1.2 billion
SMART Plan Northeast Corridor CONSENSUS	Miami-Dade County	Tri-Rail Coastal Link Connection	Estimated capital cost = $400 million excluding ROW access fee
SFRPC / TCRPC Regional Priorities CONSENSUS	SFRPC / TCRPC	• CS&F Project Flood Resilience Study Update • Water & Wastewater Infrastructure • Florida's Coral Reef • Human Biosolids • Affordable Housing	
South Florida Risk Reduction Revolving Loan Fund	SFRPC Staff	The new federally approved STORM Act [safeguarding tomorrow through ongoing mitigation] establishes a national loan program to mitigate flooding risk at an authorized level of $100 million each in fiscal years 2022 and 2023. Given that the financial need for mitigation far surpasses the availability of funding in South Florida. A South Florida regional risk reduction revolving loan fund would help fill that gap. A South Florida Regional Risk Reduction RLF could fund a range of activities proven to reduce flood risk. Projects to be chosen would follow state, county, and municipal code, goals, and guidelines, and could involve a variety of flood mitigation efforts, including elevating or floodproofing homes and businesses; conserving and protecting wetlands, dunes, and other natural areas that can absorb floodwaters; purchasing flood-prone properties; building seawalls to code; and larger-scale projects such as improving stormwater management in neighborhoods and towns.	$20 Million (?)

Additional Proposals for consideration			
	SFRPC / TCRPC Staff, DEP, Broward County Staff	Update and synthesize Florida's Coral Reef-related socioeconomic and coastal protection benefit products from NOAA and USGS to capture the full benefit of the reefs and create the blueprint business plan for why and where they should be restored and protected. Where possible integrate seagrass, mangrove, and beach habitat data to ensure restoration is done holistically." Note: The Socioeconomic Study of the Reefs in Southeast Florida conducted in 2001 by Johns et al. did not include Martin County or areas south of Monroe County. This study, along with an update of the USGS Report of the Value of U.S. Coral Reefs for Risk Reduction which calculates annual value of coastal storm flood reduction benefits in 2010 dollars, should be updated to capture the full benefit of the reefs and why they should be restored and protected.	$750 K - $1 Million
Seed Funding for a new Sustainable Coral Reef Restoration Economy	DEP, SFRPC Staff	Florida's Coral Reef annually provides over $10 Billion in economic impact from shoreline protection, fisheries habitat, and recreational opportunities. Seed funding is needed for the creation of a new sustainable coral reef restoration economy in Martin, Palm Beach, Broward, Miami-Dade, and Monroe Counties. Funding would support building coral nursery infrastructure, creating a workforce to operate the nurseries, transplanting the corals to the reefs, and maintaining the coral into the future. As the industry grows, voluntourism opportunities will be developed to ensure residents and visitors to South Florida can directly be part of restoring these ecologically, culturally, and economically important ecosystems.	$25 Million >

Recommendation

Discuss and adopt regional proposals for further consideration.

From: Maran, Ana Carolina
Sent: Thursday, May 13, 2021 12:57 PM
To: 'Isabel Cosio Carballo' <isabelc@sfrpc.com>
Cc: Owosina, Akintunde <aowosin@sfwmd.gov>; Mitnik, John <jmitnik@sfwmd.gov>
Subject: RE: Upcoming SFRPC MeetingRE: Joint RPC meeting

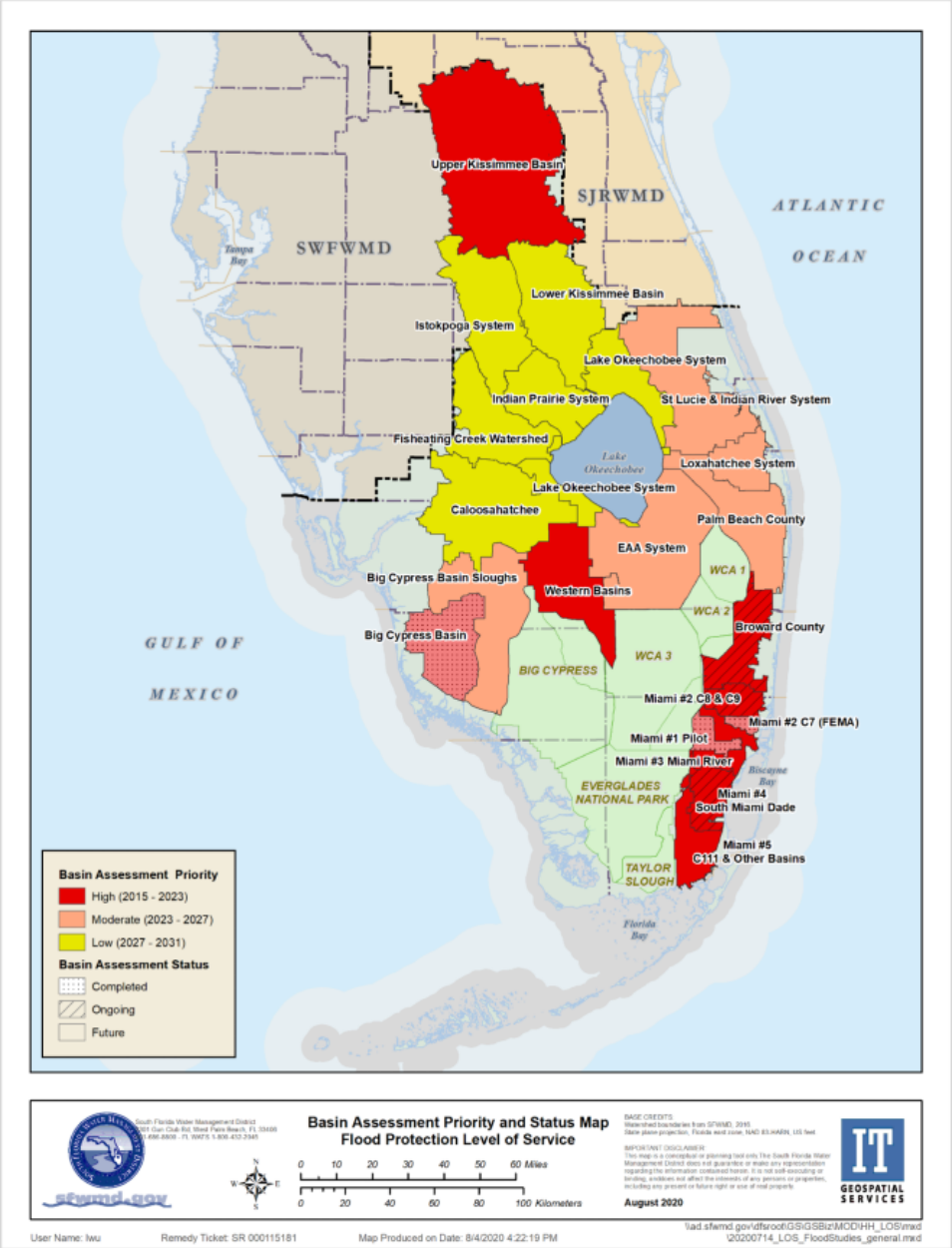
Isabel,

As discussed yesterday, below are the 3 paragraphs about the significant advances in looking at flood resiliency issues in South Florida, through the SFWMD Flood Protection Level of Service Program, and some important next steps.

The South Florida Water Management District is strongly committed to addressing the impacts of climate change, including rising sea-levels, and changing rainfall and flood patterns. As a key part of its resiliency strategy, the District continues assessing the status of its flood control infrastructure and advancing adaption strategies necessary to continue providing flood protection for South Florida, under current and future climate conditions, including sea-level rise. In coordination with FDEP and other State and Federal Agencies, the District is making infrastructure adaptation investments that are needed to successfully implement its mission of safeguarding and restoring South Florida's water resources and ecosystems, protecting communities from flooding, and ensuring an adequate water supply for all of South Florida's needs.

SFWMD, through its Flood Protection Level of Service (FPLOS) Program, is advancing a comprehensive, regional approach to addressing flood risk threats, intensified by sea-level rise, to the Central and Southern Florida Project. The Flood Protection Level of Service Program ensures the regional flood control system provides the desired level of flood protection upstream of the tidal structures in place today, and will continue to do so, with consideration of sea-level rise, as well as more intense rainfall events. This effort is integrated into the District's Capital Improvement Program to ensure its structures, pumps, canals -- all of which are critical in keeping South Florida habitable -- are functioning as designed and will remain operational under future climate conditions. FPLOS Phase I Assessments were completed for a significant portion of the South Florida region, including critical basins in Miami and Broward Counties -- as illustrated in the map below. FPLOS Phase I Assessments in these basins have advanced robust regional hydrologic and hydraulic modeling and compound flooding statistical analysis to proper characterize flood vulnerability of and risks to critical lifelines in these South Florida Communities. In May 2021, SFWMD is initiating FPLOS Phase II Adaptation Studies at C8 and C9 Priority Basins in Broward and Miami Dade Counties. FPLOS Phase II Adaptation Studies will advance identification of key local and regional flood mitigation and adaptation strategies and prioritize projects implementation.

In parallel, the District is seeking to advance a partnership with the U.S. Army Corps of Engineers to initiate the Central and South Florida Flood Resiliency Study, to comprehensively revisit the Central and Southern Florida Project, designed about 70 years ago, and advance a partnership with the Federal Government in advancing flood resiliency strategies for our region. The study is justified by the changed physical conditions already impacting the original project purposes, including land development, population increase, sea-level rise, and climate change. The study, upon funding approval, will leverage FPLOS results and assess which infrastructure is at the highest risk and address flood vulnerabilities, water supply needs, and surge protection.



Thanks for the opportunity to discuss with you and for including a reference to the FPLOS Program among the Regional Priorities – American Rescue Act. We are available to present more detail information about the advances of FPLOS Program and coordination efforts with USACE, in advancing C&SF Flood Resiliency Study, in a specific workshop with SFRPC members

Thanks,

Carolina

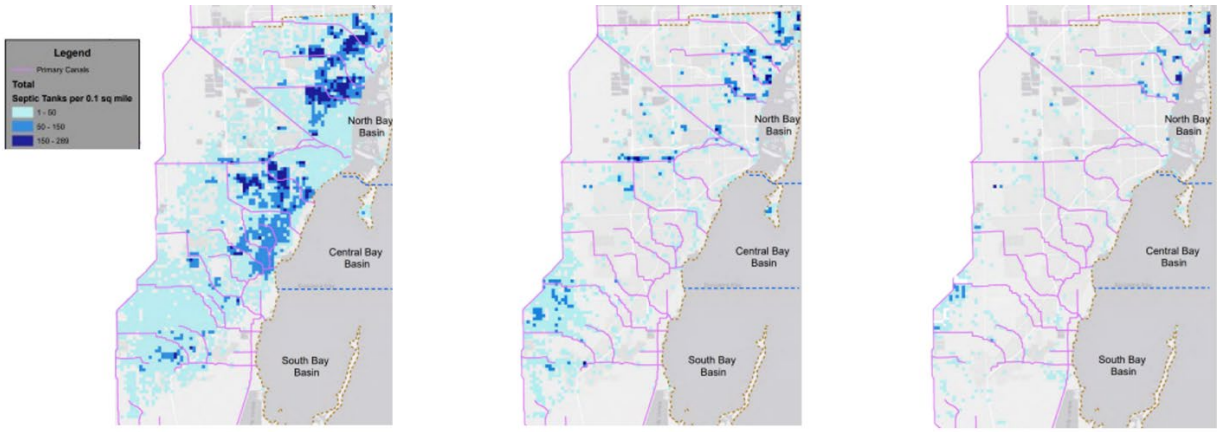
Ana Carolina Coelho Maran, P.E., Ph.D.
District Resiliency Officer
Phone 561-682-6868 • Cell 561-779-3763
www.sfwmd.gov/resiliency

Friday, May 7, 2021
American Rescue Act / Priority Regional Needs in Southeast Florida

Miami-Dade County
Resilience Category

Septic to Sewer Conversions: The proposed project is to expand sewer service to areas that are lacking sanitary sewer infrastructure and are most vulnerable to septic system compromise or failure from rising groundwater. The County has conducted recent studies that indicate there are approximately 9,000 systems currently impacted by groundwater; this number increases to 13,500 systems by 2040 with anticipated sea level rise. As illustrated in the maps below, these systems are located throughout the County, with significant concentrations near canals and rivers that discharge into Biscayne Bay. The compromised and failing systems are suspected of impacting water quality; some systems are impacting the use of certain homes and structures due to plumbing failures. The County proposes to prioritize the conversion of parcels based on the greatest likelihood and impact from septic system failure along with other environmental, social, and economic ranking criteria. The project to expand the sanitary sewer system to connect the most vulnerable parcels will include the installation of wastewater pump stations required to manage the new flow, main lines, plumbing of private parcels, the removal of septic tanks, roadway work, engagement and outreach, and other efforts necessary to achieve connection. Funding for this purpose is critical since the County is unable to use utility revenues to expand the system to non-customers.

Estimated Cost: To convert 13,500 properties from septic system to sewer service is approximately $700 Million.



Septic Systems

~120,000 Countywide

Approximately 13% of County population served by septic systems

Compromised Septic Systems

2020: ~ 9,000
2040: ~ 13,500

Loss of purification

Failing Septic Systems

Partially submerged system

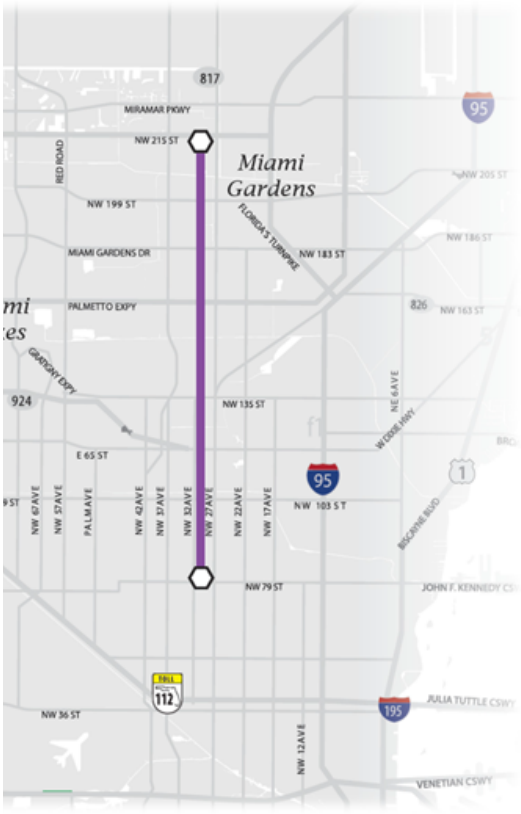
Infrastructure Category

Regional transportation is critical in a regional economy where people and products move across multiple county lines. In our SMART plan for expanding our transit system, we have two projects that could qualify:

a. The North Corridor rail line that would run up NW 27th Avenue to the Broward line; or
b. The North-East corridor that would run up the old FEC rail line to the Broward border.

SMART Plan North Corridor

Land Use Scenario & Visioning Planning
North Corridor Study Milestones



- **Study Advisory Committee (SAC)** include stakeholder representatives from each municipality and agencies. The SAC met five times during the course of the study and their feedback has been invaluable in the progress of this study. The meetings were held on:
  - ✓ **Meeting #1 – October 24, 2017**
  - ✓ **Meeting #2 – February 8, 2018**
  - ✓ **Meeting #3 – June 28, 2018**
  - ✓ **Meeting #4 – January 23, 2019**
  - ✓ **Meeting #5 – June 25, 2019**
- **Two Series of Charrettes** were held along the corridor. At each charrette, community members were invited to participate in interactive exercises. The charrettes were held on:
  - ✓ **November 4, 2017**
  - ✓ **November 8, 2017**
  - ✓ **February 23, 2019**
  - ✓ **February 27, 2019**
- **Study Documentation**
  - ✓ Charrette materials available at bottom of page
  - ✓ Land Use Final Draft Report (October 2019)
  - ✓ Economic Mobility Final Draft Report (Fall 2019)

Estimated cost: At least $1.2 billion

The North corridor has been a top priority for many years but is the most difficult to finance under the traditional FTA process.

Land Use Scenario & Visioning Planning
Northeast Corridor Study Milestones

- **Study Advisory Committee (SAC)** includes stakeholder representatives from each municipality and agencies. The SAC has met four times since the commencement of this study, and their feedback has been invaluable in the progress of this study. Additional meetings will be conducted as the study moves forward. The meetings were held on:
  - ✓ **Meeting #1 – December 4, 2017**
  - ✓ **Meeting #2 – June 7, 2018**
  - ✓ **Meeting #3 – October 29, 2018**
  - ✓ **Meeting #4 – May 30, 2019**

- **Charrettes** were held along the corridor. At each charrette, community members were invited to participate in interactive exercises. The charrettes were held on:
  - ✓ **February 1, 2018**
  - ✓ **February 10, 2018**
  - ✓ **November 8, 2018**
  - ✓ **November 14, 2018**

- **Study Documentation**
  - ✓ Charrette materials available at the bottom of this page
  - ✓ Land Use Final Draft Report (2020)
  - ✓ Economic Mobility Final Draft Report (2020)

Estimated cost:

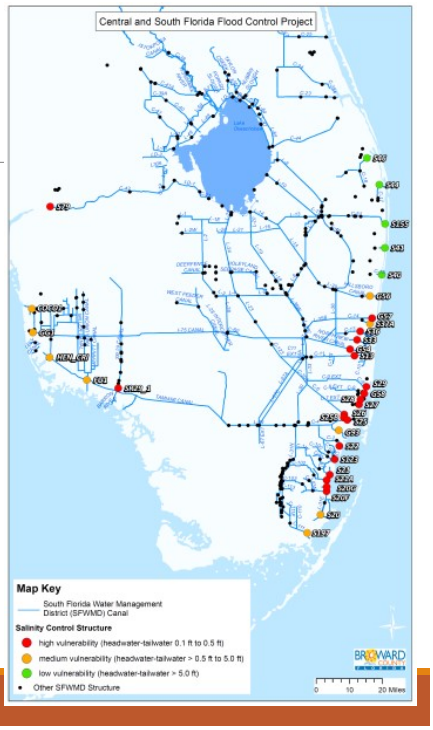
Broward County

Resilience Category

Central & Southern Florida Flood Resiliency Study: Supported by SFRPC / TCRPC, SFWMD, Miami-Dade, Palm Beach

Overview of the C&SF Project

- Designed more than 70 years ago to serve multiple civil works purposes, and includes about 1,000 miles of levees, 720 miles of canals, and almost 200 water control structures.
- Anticipated to service 2 Million residents, today the system services a region of 11 million (2017) and is expected to grow to 15 million in the next 30 years.
- System operated for collective purpose of flood control; water supply; mitigation for saltwater intrusion; natural system water deliveries (Everglades National Park, fish and wildlife resources).
- Changes in the physical environment, especially increased rainfall intensity and rising seas, substantially strain the existing system, both in terms of stormwater conveyance and discharge capabilities.
- Serving as the backbone to Everglades Restoration, update of project to account for these and future conditions is not only core to urban resilience, but Everglades Restoration strategy .



C & SF Project Resilience

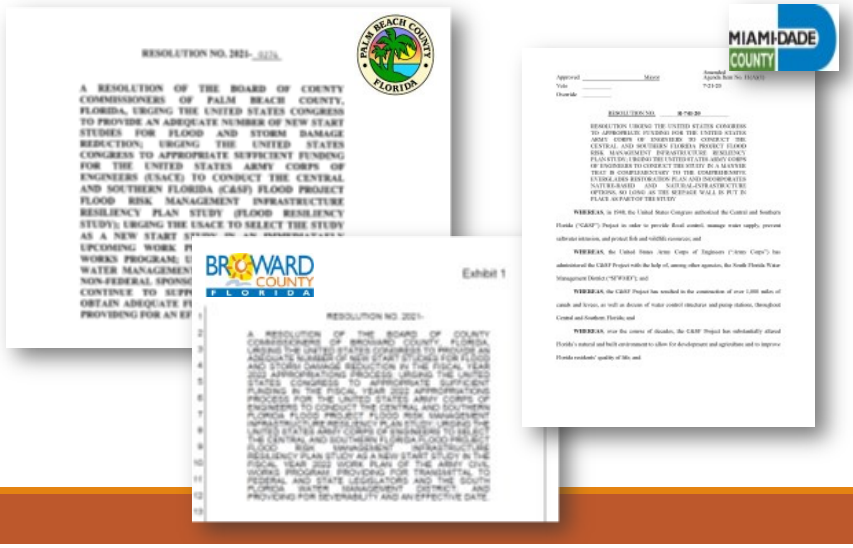
- 2009 analysis by the South Florida Water Management District (SFWMD) identified sea level rise as a significant threat to project operations
- 18 flood control structures identified within six inches of their design capacity
- Implication is that stormwater discharges to tide would be hindered by an additional six inches of sea level rise
- These structures are concentrated in the tri-county area of Palm Beach, Broward and Miami-Dade.
- This review was undertaken 11 years ago

C&SF Flood Risk Mgmt. & Resiliency Study

Action Needed:

New Start Designation for 216 Study Leading to Construction

Funding appropriation as part of USACE FY 22 Workplan



Estimated cost: $20 million

Slides courtesy of Dr. Jurado, Broward County

Infrastructure Category:

Estimated Cost of Septic to Sewer Conversion: Hollywood sanitary sewer and septic conversion needs are valued at **$400 Million.**

Monroe County

To be determined

South Florida & Treasure Coast Regional Planning Councils

Priority, seven-county regional issue areas identified by the South Florida and Treasure Coast Regional Planning Councils over the last two years are:

- CS&F Project Flood Resilience Study Update
- Water & Wastewater Infrastructure
- Affordable Housing
- Florida's Coral Reef
- Human Biosolids

South Florida Regional Planning Council Staff

Proposal: Create a Risk Reduction Revolving Loan Fund

Background:

As background, a new federally approved STORM Act enacted in January establishes a loan program federally to mitigate flooding risk, but the financial need for mitigation far surpasses the availability of funding in South Florida. A South Florida regional risk reduction revolving loan fund would help fill that gap.

A South Florida Regional Risk Reduction RLF could fund a range of activities proven to reduce flood risk. Projects to be chosen would follow state, county, and municipal code, goals, and guidelines, and could involve a variety of flood mitigation efforts, including elevating or floodproofing homes and businesses; conserving and protecting wetlands, dunes, and other natural areas that can absorb floodwaters; purchasing flood-prone properties; building seawalls to code; and larger-scale projects such as improving stormwater management in neighborhoods and towns.

The fund could be managed under general federal principles of risk reduction and mitigation and tailored to the state and local governments flood risks and priorities. As payments on outstanding loans are returned to the fund, these flood mitigation dollars would "revolve," becoming available for additional projects. Once established, this program would allow the region to be proactive and prepared. Rather than waiting for congressional appropriations or disaster assistance, communities could make plans and set priorities around a more predictable flow of money to a pipeline of flood mitigation projects. This way, even a modest expenditure can lead to a larger return on investment. It is an enduring commitment to prepare communities before floods strike. Council Staff Christina Miskis, Senior Planner (cmiskis@sfrpc.com)