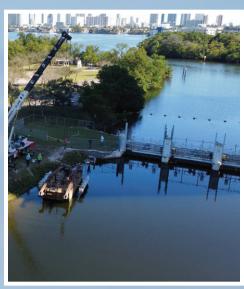


# 2025 SEA LEVEL RISE AND FLOOD RESILIENCY PLAN







Building Resiliency and Mitigating Risk to South Florida's Water Resources The public comment period on the draft 2025 Sea Level Rise and Flood Resiliency Plan was open from May 28, 2025, through June 27, 2025. In addition to formal submissions from counties, local governments, and stakeholders across the region, further input was gathered during four public workshops held in February and March. Additional comments were also submitted by residents throughout the public comment period.



#### RESILIENT ENVIRONMENT DEPARTMENT

115 S. Andrews Avenue, Room 329 • Fort Lauderdale, Florida 33301 • 954-357-6613 • FAX 954-357-8655

Drew Bartlett, Executive Director South Florida Water Management District 3301 Gun Club Rd. West Palm Beach FL, 33406

Re: Draft Sea Level Rise and Flood Resiliency Plan

Dear Executive Director Bartlett,

On behalf of the County's Resilient Environment Department, I would like to acknowledge the significant and continuing efforts of the South Florida Water Management District toward improving the resilience of our regional water management system for improved drainage, flood protection, water supply, water resource sustainability, and other environmental priorities under predicted conditions of climate change.

The County appreciates the positive partnership and on-going collaborations we enjoy with District staff as part of these priority projects, technical investigations, and regional programs and the opportunity provide to review and comment on the District's 2025 Draft Sea Level Rise and Flood Resiliency Plan. We recognize the extent to which the District has addressed our comments in previous years, including adjustments to project criteria, incorporation of updated finished floor elevations, and refinements to saltwater intrusion exposures.

With the District's current solicitation for stakeholder input on the 2025 Draft Plan, we are pleased to provide additional comments for consideration.

#### The County's comments are as follows:

#### Consistency of Criteria and Scoring System for Ranking of Resiliency Projects

We understand the difficulty in setting a standard ranking criterion for projects that have many different purposes, and the desire to incorporate criteria relevant to grant funding. We acknowledge that more points have been distributed to categories that we view as extremely important, such as the FPLOS Phase 1 Assessment Results and Known Chronic and Nuisance Flooding Reports.

While we believe that these adjustments are in the right direction, we note that even small adjustments continue to influence the rankings of Coastal Structures/Basins Projects as part of the 2025 Plan (e.g., Pages 106-108).

Attachment 1 provides a comparison of rankings for vulnerable coastal structures/basins as presented in past iterations of the District's plan. With the inclusion of several new projects into

the project priority/ranking list, almost all the projects in Broward County, except Pompano Basin, have seen a decline in the rankings. Several of the projects, such as C-11 Basin and C-9 Basins, have seen a rather large drop in ranking — C-11 Basin fell from #7 to #24 and C-9 Basin fell from #1 to #17. Some of these basins/structures are particularly vulnerable today and are critical to improve basin-scale flood resiliency both near and longer-term. Of particular note, the latest iteration of the FEMA flood map for the C-9 basin added 90,000 parcels to the insurance required flood zone, reflecting the evolving flood risk in this low-lying area under conditions of present-day rainfall, coastal surge, and drainage limitations.

It is recognized that the expanded 2025 project list presents a high-resolution refinement of identified needs and priority investments across basins, the expansion of the project list itself cannot account for notable adjustments to these individual project rankings relative to the prior year. Given that construction of these projects will undoubtedly be multi-year and rely upon joint advocacy to secure necessary Federal and State funding, it will be helpful to see stabilization of process so that there is less year-to-year variability, and greater predictability, as to how projects might rank in a given year and with time. Ideally the work plan would clearly identify the highest priority structures and any subsequent reduction in ranking would reflect successful resilience improvements.

Finally, we do appreciate the separation of Coastal Structure Resiliency Projects from others, a recommendation we provided previously.

Once again, we appreciate the extensive effort reflected in the past assessments and look forward to working with the South Florida Water Management District to help refine and advance this regional evaluation and project prioritization. We look forward to and welcome additional discussion.

Thank you for your consideration and ongoing efforts to improve the resilience of our communities.

Sincerely,

Dr. Jennifer L. Jurado

Jempe Lofund

Chief Resilience Officer and Deputy Director

Cc: Dr. Carolina Maran, P.E., SFWMD Resiliency Officer

#### Attachments:

1. Comparison of Rankings from 2021 through 2025 Sea Level Rise and Resilience Plan

Attachment 1. Comparison of Rankings from 2021 through 2025 Sea Level Rise and Resilience Plan

	Rankings					
Projects	2025	2024	2023	2022	2021	
C-17 Basin Resiliency	1					
C-6 Basin Resiliency	2	5	1	2	2	
C-7 Basin Resiliency	3	4	3	1	1	
C-14 Basin Resiliency (Broward)	4	2	7	10	7	
Pompano Canal Basin Resiliency (Broward)	5	10	5	3	5	
C-2 Basin Resiliency	6	9	11	4	6	
C-103 and C-103N Basin Resiliency	7	18	15	16	10	
C-8 Basin Resiliency	8	6	6	7	4	
C-1 Basin Resiliency	9	19	4	6	11	
C-51 East Basin Resiliency	10					
Toho LMA Basin Resiliency	11					
North Biscayne Bay Basin Resiliency	12	26	9	23	8	
HARB Basin Resiliency	13	13	19	19	19	
South Miami-Dade Curtain Flood Barrier	14					
C-100 Basin Resiliency	15	11	20	14	9	
Cypress LMA Basin Resiliency	16					
C-9 Basin Resiliency (Broward/Miami)	17	1	2	9	3	
C-51 West Basin Resiliency	18					
MODEL-LAND Basin Resiliency	19	8	22	22	23	
C-111 AG Basin Resiliency	20	12	13	18	22	
C-4 Basin Resiliency	21	21	8	8	14	
Gentry LMA Basin Resiliency	22					
Kissimmee LMA Basin Resiliency	23					
C-11 Basin Resiliency (Broward)	24	7	17	11	20	
C-111 South and C-111 Coastal Basin Resiliency	25	27				
Alligator LMA Basin Resiliency	26					
C-12 Canal Enhancement with Green & Grey						
Infrastructure (Broward)	27	3	21	20	18	
East Lake Toho LMA Basin Resiliency	28					
C-5 Basin Resiliency	29	17	12	5	17	
C-3 Basin Resiliency	30	22	10	17	13	
Hart LMA Basin Resiliency	31					
C-13 Basin Resiliency (Broward)	32	23	18	12	21	
C-102 and C-102N Basin Resiliency	33	16	23	21	12	
L-8 Basin Resiliency	34					
L-31E Flood Barrier Improvements	35					

North New River Canal Basin Resiliency (Broward)	36	14	14	13	16
US1 Basin Resiliency	37	28			
Myrtle LMA Basin Resiliency	38				
Hatchineha LMA Basin Resiliency	39				
C-16 Basin Resiliency	40				
L-31NS Basin Resiliency	41	24			
Goulds Canal Basin Resiliency	42	20			
Henderson-Belle Meade Basin Resiliency	43	15			
C-15 Basin Resiliency	44				
Hillsboro Canal Basin Resiliency (Broward)	45	25	16	15	15
Directing Coastal Ecosystem Resilience	46				

#### Cortez, Nicole

From: Amy Eason <aeason@martin.fl.us>
Sent: Friday, June 27, 2025 9:01 AM

To: Resiliency

**Cc:** John Maehl; James Gorton

**Subject:** 2025 Draft Sea Level Rise and Flood Resiliency Plan

## [Please remember, this is an external email]

Thank you for allowing Martin County the opportunity to review and comment on this plan. The plan is well thought out and provides information that can translate to the local level. As a cursory review of the document, Martin County has the following questions and comments:

- On page 4-7, "Current and Future Flood Protection Level of Service" discusses an analysis on level of service
  within a basin. It is unclear as to what infrastructure is being defined as having certain level of
  service. Assuming that SFWMD is examining its infrastructure level of service within basins, please confirm that
  the level of service is for the canals and structures that the District operates and maintains versus infrastructure
  such as roads and buildings.
- The report further discusses performance metrics on page 4-9. The first paragraph mentions 6 performance metrics and categories them as Metric 1 through 4 assess the capacity and effectiveness of the regional drainage system, while Metrics 5 and 6 measure local flood frequency. The pages before this do not explain what these Metrics are and the numbering of the Metrics. Please include a description of this prior to this section and how this information is being used.
- Based on the comments and questions above, Table 4-2 represents the PM1-Assessment for Maximum Stage in Primary Canals. If local municipalities are using a level of service for roads at a 5- or 10-year storm event, local drainage at a 25-year storm, and buildings at a 100-year storm, then this table is basically saying that local level of service may not be attainable if the main canals have a lesser level of service.
- Which tables represent the colors on Figures 4-4 and 4-5? There is mention of using several performance metrics to designate a basins level of service, but it is unclear as to how that was determined. Again, do these figures only represent the SFWMD infrastructure level of service that serves those basins?
- On page 7-5, the District is promoting the use of reuse as an alternative water supply. There needs to be a discussion on the use of reuse water in relation to water quality and the need to reduce fertilizer use when utilizing reuse water for irrigation so that water quality is not impacted.
- If this plan is only being updated every 5 years, how are you adding projects as current and future FPLOS studies are completed?

Again, thank you for this opportunity and should you have any questions or need any additional information as you review our response, please don't hesitate to call or email me.

Thanks.



## **Amy Eason, PE**

Environmental Resource Engineer Martin County Board of County Commissioners 2401 SE Monterey Road, Stuart, FL 34996 (772) 320-3038 (o) (772) 288-5955 (F)

Email: aeason@martin.fl.us

## Cortez, Nicole

From: Irwin, Alannah < IrwinA@bbfl.us> Sent: Thursday, June 26, 2025 2:18 PM

To: Resiliency

**Subject:** 2025 Draft Sea Level Rise and Flood Resiliency Plan Comments

**Attachments:** 2025 Draft Sea Level Rise and Flood Resiliency Plan Comments+Al.docx

Some people who received this message don't often get email from irwina@bbfl.us. Learn why this is important

## [Please remember, this is an external email]

Dear District Resiliency Team,

Please find attached my comments to the 2025 Draft Sea Level Rise and Flood Resiliency Plan. Thanks to you and the District for your continued efforts to build resilience in our water resources management and provide a platform for stakeholder engagement. This report will be extremely valuable to the end users.

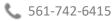
Have a great day!

Regards, Alannah Irwin Sustainability & Resiliency Administrator City of Boynton Beach, FL



Alannah Irwin Administrator, Sustainability & Resiliency Boynton Beach Utilities, Administration City of Boynton Beach

124 E. Woolbright Rd. | Boynton Beach, Florida 33435





🖂 IrwinA@bbfl.us | 🞧 http://www.boynton-beach.org/







#### America's Gateway to the Gulfstream

Please be advised that Florida has a broad public records law, and all correspondence to me via email may be subject to disclosure. Under Florida law, email addresses are public records. Therefore, your email communication and your email address may be subject to public disclosure

#### Comments: 2025 DRAFT Sea Level Rise and Flood Resiliency Plan

- ES-1: First sentence should read "...best available, science-backed data"
- ES-2: Second sentence has an extra space between "in" and "coordination"
- ES-3: Under "Stakeholder Coordination," there appears to be some extra spacing between the first and second sentences
- ES-3: Need to add a space between the first and second paragraphs
- ES-4: Need space between "the" and "FDEP"
- ES-4: Extra space between "FDEP" and "on" in the first sentence beginning with "Additionally"
- 1-2: General comment, but would the Water Supply Vulnerability Assessment be available for public view soon? This is something that would be of great interest to our water utility.
- 1-4: General comment: it would be great if the District did a similar workshop structure for the Water Supply Vulnerability Assessment as it did the flood resiliency plan. This will ensure that the key stakeholders are aware and engaged in the assessment development
- 1-7: General comment/question: Will you be requiring your local secondary control districts to conduct vulnerability assessments? Or does the SFWMD's VA cover these districts for flood control management?
- 2-3: Personally, not a fan of all the acronyms, but I understand the need for them
- 3-2: It would be great if the District did a workshop dedicated to the Water and Climate Resilience Metrics so stakeholders can see and better understand what is being tracked
- 5-6: Will you be working with the secondary control districts to incorporate nature-based solutions in their water management practices?
- 7-7: Does the District have any recommendations for exploring seawater desalination?



Rafael G. Casals, ICMA-CM, CFM

Town Manager

June 27, 2025

Ms. Carolina Maran, P.E., Ph.D.
Chief of District Resiliency
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406
cmaran@sfwmd.gov
resiliency@sfwmd.gov

RE: Comments on the 2025 South Florida Water Management District Draft Sea-level Rise and Flood Resiliency Plan

#### Dear Carolina Maran:

On behalf of the Town of Cutler Bay ("Town") and all its residents, we express our sincerest appreciation to the South Florida Water Management District ("District") for its continued leadership in regional resilience planning. We appreciate the timely release of the 2025 Draft Sea-Level Rise and Flood Resiliency Plan ("SLRFRP") and the ability to provide feedback on its latest iteration, which reflects several years of intensive assessment and collaborative development. As a coastal municipality, the Town remains one of the most at-risk communities in Miami-Dade County ("County") and therefore represents a major stakeholder in all regional water control and restoration projects. The wellbeing of the Town's residents is intimately and uniquely connected to the SLRFP outcomes and successes. On behalf of the Town Council and residents, the Town would like to acknowledge the improvements that the District has made in response to continued input following the original publication of the plan in 2021. We commend the District for its responsiveness to stakeholder concerns — particularly those voiced by vulnerable coastal municipalities like the Town of Cutler Bay.

While we continue to highlight areas for improvement (e.g. construction of the curtain wall) we are confident that continued cooperation will yield a highly comprehensive plan that will adequately address pressing concerns County-wide.

We applaud the District for integrating advanced flood risk modeling, nature-based infrastructure planning, and continued work on the Water Supply Vulnerability Assessment, which is poised to support science-based mitigation strategies. However, we respectfully offer the following comments and recommendations to ensure that the 2025 Plan fully addresses the unique needs and concerns of our community and the broader Biscayne Bay watershed.

#### 1. Resiliency Improvements Within C-1 and C-100 Basins

The Town represents one of the most vulnerable municipalities within our County, both to the impacts of sea level rise (SLR) and climate change due to its coastal location, combined with low elevation (Figures 1 and 2). This vulnerability was exposed in early June of 2022 during the passage of Tropical Storm Alex, when 26.35 inches of rain fell between June 2 and June 9, representing





Rafael G. Casals, ICMA-CM, CFM

Town Manager

nearly half of the previous year's totals in just one week; it also constituted a near 1-in-200-year flooding event for 1-day and 3-day flooding. Although the Town's water-management infrastructure was operating "as intended, with capacity and no obstructions", the presence of standing water in parts of our municipality was reported on June 7, highlighting the fact that regional flooding of this magnitude exceeds functional capacity of the system currently in place.



Figure 1. Aerial Map of the Town of Cutler Bay 1

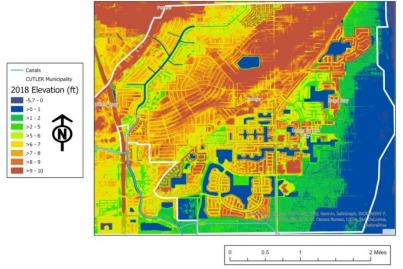


Figure 2. LIDAR Map of the Town of Cutler Bay Selecting the Vulnerability to Sea-level Rise

<sup>&</sup>lt;sup>1</sup> Town of Cutler Bay, Florida. (n.d.) *Town Map.* Community. Cutlerbay-fl.gov. <a href="https://www.cutlerbay-fl.gov/sites/default/files/fileattachments/community/page/2971/2cutler\_bay\_arial.pdf">https://www.cutlerbay-fl.gov/sites/default/files/fileattachments/community/page/2971/2cutler\_bay\_arial.pdf</a>



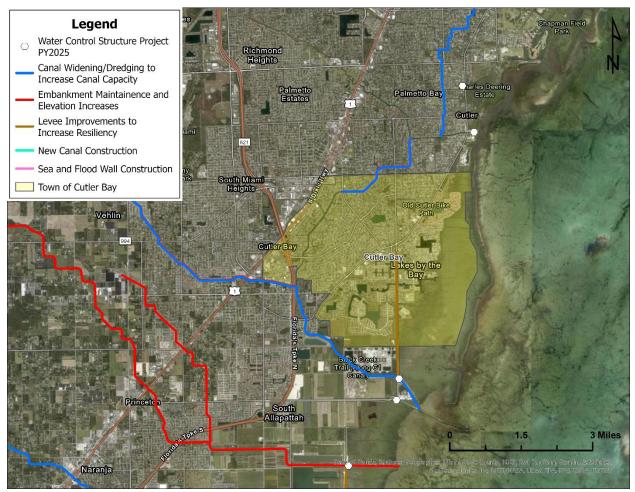
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Rafael G. Casals, ICMA-CM, CFM

Town Manager

Climate projections indicate that such extreme weather will become more frequent in the future and, just last year, parts of South Florida saw more extreme early summer precipitation, this time amounting to a 500-to-1,000-year event, with portions of the County receiving ~20 inches of rain in just 48 hours. Notably, neither of the two rain events were associated with a major tropical cyclone (i.e. a hurricane of Category 3 or above), while inducing flood damage characteristic of such. Flooding of this intensity does not only prevent people from leaving their homes and damage property but represents a major risk of injury and loss of life and must be addressed in a preventative manner.



**Figure 3.** Regional map showing canal enhancement project identified in the 2025 Draft Sea-Level Rise and Flood Resiliency Plan for PY2025

Given Town's susceptibility to flooding, we are very encouraged to see the District working towards raising regional flood protection standards to that of a 25-year storm event target under 3-ft sea level rise scenario. We welcome the proposed resiliency enhancements along the C-1W/C-1 and C-100A/C-100B Canals (Figure 3), including dredging of the canal bottom to the original elevation, bank stabilization and elevation improvements, as well as sediment removal to restore conveyance capacity, drainage efficiency and reduced flood risk in adjacent neighborhoods. We are also excited about the on-going and proposed upgrades to existing water control structures S-123 and S-21A,





Rafael G. Casals, ICMA-CM, CFM

Town Manager

which include structure hardening and additional forward pumping capacity. We believe that this will significantly improve stormwater management and operational reliability both during extreme weather events as well as sunny-day flooding. Collectively, these improvements demonstrate the District's strong leadership and responsiveness in addressing the unique vulnerabilities faced by coastal communities like our Town. We are also relieved to see that these projects have been assigned a high priority, which we have advocated for in our previous letters.

#### 2. Expansion of Green Infrastructure and Partnership Opportunities in Cutler Bay

The 2025 Plan, along with its previous iterations, rightly acknowledges that nature-based solutions ("NBS") and hybrid infrastructure solutions, such as living shorelines, wetland/mangrove restoration, and urban-green infrastructure, offer multiple co-benefits, including flood mitigation, water quality improvements, aquifer recharge, salt-water intrusion prevention, carbon sequestration and habitat restoration, among many others. The commitment to integrating NBS, alongside gray engineered infrastructure, in response to strong preference voiced by stakeholders and community members for such approaches, is a welcome evolution to South Florida's flood control framework.

We would like to commend the District for its continued emphasis on NBS in the 2025 Plan and are encouraged by the proposed NBS features as part of C-7, C-8 and C-9 Basin Resiliency Projects. The Projects will include approximately 1,290 linear feet of living seawall along the C-7 Canal bank to boost storm resilience, the installation of living shoreline along the C-8 Canal to assist in enhancing overall water quality and aquatic habitat, and construction of a stormwater detention wetland adjacent to the C-9 Canal to provide overflow relief during high run-off events. These initiatives represent forward-thinking adaptations that improve regional floodwater management, while advancing the County's environmental agenda. The District should continue identifying communities that can benefit most from NBS implementation and explore more opportunities to expand the use of urban green infrastructure, particularly in coastal communities like Cutler Bay and Palmetto Bay. The Town is proud and privileged to have partnered with the District on resiliency and restoration projects in the past, including the acquisition of the 8.4-acre parcel adjacent to the Biscayne Bay Southeastern Everglades Ecosystem Restoration ("BBSEER") project footprint for resilience and restoration purposes and we continue to seek opportunities to collaborate on the preservation of other parcels within our boundaries, particularly, a 53-acre site already under District ownership that lies adjacent to the Biscayne Bay Coastal Wetlands ("BBCW") project area.

We reiterate our strong support for the use of green infrastructure, such as mangrove restoration, constructed wetlands, and urban green corridors. This should be embedded into every basin's adaptation strategy. We also find it prudent to continue pointing out that **investments in gray infrastructure must occur in conjunction with an aggressive land-buying program for local and regional scale restoration**. We also request that the District formally evaluate the potential of NBS for heat mitigation benefits, based on the 3.6°F drop in average temperatures registered in the Columbian city of Medellin in the first 3 years of the Green Corridors program<sup>2</sup>.

Lastly, we are excited to see the District move forward with the Mangrove Experimental Manipulation Exercise ("MEME") and the Everglades Mangrove Migration Assessment ("EMMA"), which will be

<sup>&</sup>lt;sup>2</sup> This Colombian city is growing "green corridors" to tackle Rising heat. World Economic Forum. (n.d.). https://www.weforum.org/agenda/2021/08/colombias-medellin-plants-green-corridors-to-beat-rising-heat/ (Accessed: 27 June 2024).



Rafael G. Casals, ICMA-CM, CFM

Town Manager

instrumental to enhancing the ecological resilience of coastal Everglades sawgrass and low-productivity mangrove wetlands by fostering natural adaptation to sea level rise. But let's be sure this is done with clean fill, so it does not cause any unintended nutrient loading in the adjacent outstanding Florida waters.

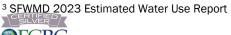
#### 3. Prioritize Biscayne Aquifer Protection and Saltwater Intrusion Mitigation

The Town continues to highlight the critical need for proactive measures to mitigate saltwater intrusions into the County's groundwater and freshwater wells of the Florida aquifer and address the diminishing flow of groundwater to Biscayne Bay. The 2025 Draft Plan highlights the fact that between 2000 and 2023, a total of forty-two (42) public supply wells were abandoned along South Florida's coastline due to increased salinities, highlighting the dire need for intervention.

We are pleased to see the District emphasize the importance of regional ecosystem restoration projects e.g. under Comprehensive Everglades Restoration Plan ("CERP") and recognize that the reestablishment of beneficial freshwater flows throughout the system is highly conducive to slowing down saltwater intrusions, along with auxiliary benefits, which include promoting more sustainable aquifer recharge rates, healthier estuaries and bays, more stable coastlines, and overall improvement in coastal resiliency. Additionally, the 2025 Plan also discusses enhancements to coastal structures as an important mechanism for salinity control in water supply management. We appreciate the District's recognition that coastal structures continue losing efficacy as salinity barriers during high tide, storm surge conditions and continually raising sea-levels. However, we request that the plan incorporate more robust, site-specific actions aimed at protecting wellfields in southern Miami-Dade, including managed aquifer recharge and expanded monitoring of salinity interfaces.

Several aspects, however, continue to be missing from these discussions, namely the seasonal agricultural drawdown and operations at Turkey Point Nuclear Generating Station ("TPNGS"). The former represents one of the major exacerbating factors enabling saltwater intrusions into the Biscayne Aquifer, as current agricultural operations require, on average, 845 million gallons per day for irrigation purposes with the lion's share of that supply obtained from groundwater sources³. Without sufficient recharge from the Everglades, the release of this volume of freshwater from the aquifer leaves our only source of drinking water increasingly vulnerable. In addition, these practices drive increases in hyper-saline conditions in the nearshore environments of Biscayne Bay due to compromised freshwater inflow. Alternatives to current agricultural drawdown operations have been proposed which deserve further investigation at an expedited timeline.

As for the latter, we continue advocating for utilization of reuse water in TPNGS's cooling canal system. The opportunity to integrate reclaimed water into the cooling system has not been pursued, despite its potential to preserve potable water supply and reduce aquifer withdrawals. We ask that the District formally evaluate incorporating this suggestion into existing plans for increasing water supply resiliency. We would also like to note that the District continues to delay remediation plans of the deep hypersaline plume emanating from TPNGS's cooling canals and through the subsurface aquifer. This plant is operating at sea-level and no mitigation, to date, has been required to offset decades of impacts to both the Bay and the aquifer. The current remediation plan only covers the





Rafael G. Casals, ICMA-CM, CFM

Town Manager

water supply to the west, which is inadvertently flushing hypersaline water into the near-shore environment of Biscayne Bay, in direct conflict with project metrics outlined in BBSEER. Both the National Park Service and the District have noted historical increases in the salinity in Biscayne Bay, which have already affected populations of several aquatic species. This hypersaline plume also contains nutrients that have been concentrated over decades of evaporation and operations at the TPNGS, that have impacted and changed the flora and fauna of the benthic habitat in nearshore areas, most notably – seagrass abundance and species composition.

We also continue raising concerns over the District's plans to implement the Miami-Dade curtain wall in the southernmost portion of the water management district, as it presents long-term implications for groundwater flow regimes. As stated in prior feedback letters, the Town remains concerned that the proposed bentonite curtain wall could further compromise freshwater flows to the Bay and exacerbate saltwater intrusion, unless not paired with radical mitigation measures. We urge the District to release the modeling results quantifying the projected impacts of the wall on Biscayne Bay salinity and aquifer recharge. Moreover, the District should explicitly commit to ensuring that flows required to support key CERP components (BBCW and BBSEER) remain constant or increase - not decline. We request that the District develop a formal mitigation strategy that includes both freshwater flow restoration targets and measurable ecosystem indicators for the nearshore Bay environment.

#### 4. Changes to the Plan Update Frequency

Lastly, we would like to point out that the shift from annual to five-year updates for the SLRFRP, may hinder effective stakeholder engagement and responsiveness to evolving climate threats. Previously, yearly updates allowed local governments, agencies, and community memebrs to provide timely input, track project progress, and adjust priorities based on new data or emerging vulnerabilities. The plan itself highlights the value of frequent collaboration through mechanisms like the Resiliency Coordination Forum and public workshops, emphasizing the importance of shared knowledge and adaptive planning. Moving to a five-year update cycle risks diminishing this collaborative momentum and could delay the incorporation of critical feedback, ultimately reducing the Plan's responsiveness and effectiveness in addressing South Florida's rapidly changing conditions.

On behalf of the Town Council of Cutler Bay, we thank you for taking time to review our comments. If you should have any questions or concerns, feel free to contact me at (786) 573-5518 or via email at <a href="mailto:reasals@cutlerbay-fl.gov">reasals@cutlerbay-fl.gov</a>.

Sincerely,

Rafael G. Casals, ICMA-CM, CFM

Town Manager





Rafael G. Casals, ICMA-CM, CFM

Town Manager

CC: Drew Bartlett, Executive Director, South Florida Water Management District, <a href="mailto:dbartlett@sfwmd.gov">dbartlett@sfwmd.gov</a>
Jennifer Reynolds Division Director for Ecosystem Restoration & Capital Projects, South Florida Water Management District Governing Board, <a href="mailto:jreynolds@sfwmd.gov">jreynolds@sfwmd.gov</a>
Mayio Calatawyd Sanatar, Florida State Sanata Calatawyd Alexio web@florosto gov.

Alexis Calatayud, Senator, Florida State Senate, <u>Calatayud.Alexis.web@flsenate.gov</u> Omar Blanco <u>omar.blanco@myfloridahouse.gov</u>

Daniella Levine Cava, Mayor, Miami-Dade County, <a href="mayor@miamidade.gov">mayor@miamidade.gov</a>
Danielle Cohen Higgins, Commissioner, Miami-Dade County, <a href="maisting-bistrict9@miamidade.gov">District8@miamidade.gov</a>
Kionne McGhee, Commissioner, Miami-Dade County, <a href="maisting-bistrict9@miamidade.gov">District9@miamidade.gov</a>
Laura Reynolds, Environmental Consultant, Town of Cutler Bay, <a href="maisting-bistrict9@miamidade.gov">Ireynolds@conservationconceptsllc.org</a>





Lingelbach1@usf.edu((

450 8th Ave SE St. Petersburg, FL 33701

**Dr. Carolina Maran**SFWMD District Resiliency Officer

June 18, 2025

#### Subject: Florida Flood Hub Comments on the Draft 2025 District Plan

Florida Flood Hub staff reviewed the Draft 2025 District Sea Level Rise and Flood Resiliency Plan. Overall, staff found the content to be informative regarding the District's process for vetting and prioritizing its projects to enhance resilience. The only substantive feedback relates to the "Ecosystem Restoration Projects and Resiliency" chapter. Staff noted that it would be helpful to provide clarity, perhaps in a paragraph or two, on how the ecosystem restoration plans and projects get factored into the prioritization of projects. It is clear in Chapter 8 "Characterizing and Ranking Resiliency Projects" and Chapter 10 "Enhancing Our Water Management Systems: Priority Resiliency Implementation Projects", but the connection seems to be missing up front. Additionally, staff are wondering if there is a connection between ecosystem restoration plans and the planned updates to the water and climate resiliency metrics.

Otherwise, staff found some minor grammar and format errors as detailed below for each chapter.

- Executive Summary:
  - Page ES-3 There is a formatting issue with the spacing within and between paragraphs for the 'Stakeholder Coordination' section.
  - Page ES-4 In the first paragraph, there is a missing space between the words "...the FDEP...".
- Resiliency Vision
  - $\circ$  Page 1-7 In the two paragraphs of the left column, the abbreviation should say "C&SF" not "CS&F".
- The Central and Southern Florida System and Big Cypress Basin Flood Control Systems
  - Page 2-3 The embedded images are very blurry and hard to read.
  - Bringing Science and Data to Inform Resiliency Planning
    - Page 3-1 The acronym "DBHYDRO" is use for the first time on the page but it is not defined.
    - Page 3-4 Staff suggests updating the figures to something closer to 300 dpi for resolution as it is difficult to read the axis labels.



- Page 3-5 Does "New Data Analysis, Enhanced Analysis, and Updates" all need to be capitalized in the explanation of phase II at the top of the page?
- Assessing Flood Vulnerabilities: Flood Protection Level of Service Program
  - Page 4-6 This figure is blurry and could be difficult to read the y-axis labels if printed.
     Also, it is unclear what the x-axis represents.
  - o Page 4-7 The legend is cut off.
  - Page 4-8 There seems to be an incomplete sentence and the image is partially cutoff.
     The pink font for "county's" is difficult to read.
  - Page 4-18 Figure 4-8 is very hard to read and follow along. The legend is blurry.
  - Page 4-20 In the first paragraph, there is a space missing between the words "of critical".

#### • Nature Based Solutions

- o The cover image for this section is blurry unlike the other sections.
- O Page 5-1 In the last paragraph of the left column, there is a missing word in the phrase "are necessary reduce climate change".
- Page 5-3 For Figures 5-1 and 5-2, staff suggest a clearer photo and more labels to better guide the reader in visualizing the stormwater detention wetland. It is hard to interpret the dark gray on the bottom of the figure.
- Water Supply Resiliency
  - Page 7-4 RAA is not defined until several paragraphs into reading. Staff suggest clarifying this definition earlier.
  - Page 7-7 It may be of value to add some visuals of the reclamation plants being described here.
- Characterizing and Ranking Resiliency Projects
  - o Page 8-2 Figure 8-2 is blurry and unreadable.
  - o Page 8-6 The link for the USACE source is broken
  - Page 8-10 It is unclear what SIP stands for when referring to the SIP report.
  - o Page 8-11 and 8-12 It is difficult to read Figures 8-8 to 8-11.
- Enhancing Our Water Management Systems: Priority Resiliency Implementation Projects
  - o Page 10-10 In the last paragraph of the left column, there is a random comma in the middle of the phrase "Reach A of the C&SF Flood Resiliency Stud,y"
  - Page 10-10 In the last paragraph of the right column, there is a missing period where it says "existing CERP projectsProject features".
- Appendix A
  - o Page 566 In the last paragraph, acronym "DBHYDRO" is spelled "DBhydro" only here.

We look forward to hearing updates about the plan and its final draft. Please reach out if you have any questions for us.

# Lacey Lingelbach

Scientific Liaison

#### Cortez, Nicole

**From:** Vogt, Victoria <victoria.vogt@dot.state.fl.us>

**Sent:** Friday, June 27, 2025 1:37 PM

To: Resiliency

**Cc:** brett.mcpherson@rsandh.com; sebastian.ruiz@dot.state.fl.us;

shakira.trabelsi@dot.state.fl.us; steven.james@dot.state.fl.us; molly.hunter@rsandh.com

**Subject:** SFWMD SLR and Flood Resiliency Plan Comments - FDOT District 6

## [Please remember, this is an external email]



# victoria.vogt@dot.state.fl.us sent you a secure message



Please find comments attached for the subject SLR & Flood Resiliency Plan on behalf of FDOT District 6.

# A brief description of the files to send to SFWMD:

- SFWMD\_SLR and Flood Resiliency Plan\_Draft\_May\_28\_Technical Drainage Comments
  Provides a technical review of the SLR and Flood Resiliency Plan for our water resources
  engineering expert. These comments provide perspective to impacts to FDOT assets and
  systems as well as other resource consideration such as nutrient loads and stormwater
  management.
- SFWMD\_SLR and Flood Resiliency Plan\_Draft\_May\_28\_FDOT Resilience Comments Identified projects of interest for FDOT D6.
- The Attachments expire on Jul 11, 2025



# 1 spreadsheet

SFWMD\_SLR and Flood Resiliency Plan\_Draft\_May\_28\_Comments.xlsx



# 2 PDFs

SFWMD\_SLR and Flood Resiliency Plan\_Draft\_May\_28\_Technical Drainage Comments.pdf, SFWMD\_SLR and Flood Resilieny Plan\_Draft\_May\_28\_FDOT Resilience Comments.pdf

This message requires that you sign in to access the message and any file attachments.



Page	▼ Comments	Subject theme	Author
	The results of all the available FPLOS studies should be made available in an electronic database such as DB-HYDRO to be able to be able to		
	18 have comprehensive data for all canals at different points such as design storms (10, 25, 50, 100, 500yr) and corresponding stages and flows.	Reccommendation	PelegriP
	discuss how the district intends to improve interaction with state and local partners such as FDOT in addressing improvements to transportation		
	19 infrastructure impacting SFWMD Canals.	Elaborate	PelegriP
	given the fact that the C&SF now serves 9.5 million, there should be more datapoints along canals (flows and stages) for different storm events		
	24 provided in the District's database.	Recommendation	PelegriP
	25 how was this average determined and over what period? Needs to be more specific to have a better idea of the impact.	Elaborate	PelegriP
	25 what is the plan to improve data sharing with local drainage districts to have a more comprehensive understanding of impacts to canals?	Add Information	PelegriP
	what is the storm surge depth considered and how was the 6-inch SLR determined? does this consider the NOAA closest gauge and appropriate		
	25 horizon?	Elaborate	PelegriP
	should include other planning horizon to better capture design life of critical infrastructure impacting canals such as FDOT bridges which have a		
	41 75 design service life.	Recommendation	PelegriP
	63 coordination with local drainage districts?	Coordination Needed	PelegriP
	66 coordinate with FDOT for regional pond and other storm water management opportunities	Coordinaiton Needed	PelegriP
	has this also considered nitrogen loads? Does this take into account the new nutrient loading requirements per Florida's new stormwater rules?		
	75 It is recommended to cover this.	Elaborare	PelegriP
	76 please mention that Biscayne Bay is part of Outstanding Florida Waters (OFW) and will require 50% additional volume water quality treatment	Add Information	PelegriP
	150 suggested to mention utilities that cross SFWMD canals and how to consider them for resiliency purposes.	Add Information	PelegriP
	167 include mention of other FDOT critical assets such as I-75, SR 826, etc. and how the improvements impact FDOT facilities.	Add Information	PelegriP
	170 Please explain how the proposed sea wall will impact FDOT Bridge along NW 103rd Street (SR 932)	Elaborate	PelegriP
	181 elaborate on the impacts to the FDOT transportation system	Elaborate	PelegriP
	looks like the canal widening may impact FDOT facilities within these limits such as SR 7 and NW 27th Ave. Consider opportunities for regional		
	188 treatment opportunities to aid transportation projects and address SFWMD discharge needs.	Recommendation	PelegriP
	how will the raising of the canal banks impact drainage infrastructure from transportation facilities such as SR 817 (Univerity Dr), SR 816, and SR		
	208 7 within the limits of bank raising improvements. Has coordination with FDOT occurred?	Add Information / Coordination Needed	PelegriP
	229 Consider impacts to current/ planned FDOT projects (Okeechobee RD)	Add information	PelegriP
	250 coordination with FDOT for impacts to Krome Avenue bridge due to embankment improvements.	Coordination Needed	PelegriP







June 27, 2025

Attn: Executive Director South Florida Water Management District 3301 Gun Club Road West Palm Beach, Florida 33406

#### Dear Mr. Bartlett:

Thank you for the opportunity to review the 2025 Draft Sea Level Rise and Flood Resiliency Plan (Plan). Audubon Florida, The Everglades Foundation, and Everglades Law Center commend the South Florida Water Management District for its continued leadership in strengthening South Florida's infrastructure in response to sea level rise, increased storm activity, and other climate-related threats. We appreciate several key advancements in this year's draft, including the integration of post-disaster assessments, alignment with Florida's Statewide Vulnerability Assessment, the interactive project map, the addition of Chapter 11 on implementation, and the inclusion of several new projects and initiatives. Overall, the 2025 Plan reflects a broader geographic scope, greater technical ambition, and a deeper integration of environmental and energy resilience goals. To further strengthen the Plan and enhance its value as both a long-range strategy and public communication tool we offer the following recommendations.

#### 1. Water Supply Resiliency

We acknowledge the importance of water supply planning in maintaining and protecting future water resources. The Everglades Agricultural Area reservoir, once completed, will generate a significant positive impact on the Everglades ecosystem and in aquifer recharge. We urge the District to further strengthen the focus on aquifer protection, especially in regions exhibiting signs of aquifer stress. We recommend expanding monitoring efforts in areas with high concentrations of domestic self-supply wells, reevaluating allowances for consumptive use permits, and ensuring conversion to central water supply to relieve stress on vulnerable aquifers.

The District should identify regions at risk of aquifer depletion and take proactive measures to avoid crisis situations, like those necessitating Cape Coral's Phase IV water restrictions. We suggest expanding Chapter 7 to include strategies that address these concerns, with an added focus on the Central Florida Water Initiative region (which projects an unsustainable 96 mgd increase in groundwater withdrawals by 2045) and at-risk coastal aquifers. In addition to pursuing alternative water supply and storage solutions, protecting existing water sources must remain a top priority.

We reiterate the importance of water quality improvement projects into resilience planning to ensure that we keep sending clean water to our estuaries and bays. The continuous efforts to create storage and increase the efficiency of stormwater treatment areas around Lake Okeechobee are critical for water quality improvement in the region. To add to this effort, we recommend

maximizing the use of green and blue infrastructure for flood mitigation and water storage in urban areas. The ranking criteria to identify priority projects would benefit from the inclusion of water quality impairments and benefits as categories in the 'likelihood of system deficiency', 'consequence of system deficiency', and 'benefit of system enhancement' criteria sets as described in Chapter 8.

## 2. Geographic Equity and Inland Resiliency

We are pleased to see the inclusion of new planning and modeling efforts in areas such as the Upper Kissimmee and Palm Beach basins, as well as funding from Resilient Florida for boundary condition simulations and the Broward Basin Flood Resiliency Study. While we recognize this Plan prioritizes urgent east coast issues, we reiterate our request for greater attention to west coast and inland basin needs. Most of the resiliency projects in the Upper Kissimmee Valley are drainage projects (increasing the flood protection level of service (FPLOS)) which may reduce local flooding but exacerbate downstream flooding—offering no net regional benefit. These projects can also degrade water quality, increase dry season shortages, drive salinity imbalances, compound flooding, and heighten wildfire risks. The Plan should more explicitly address these potential impacts by prioritizing strategies, such as expanding basin storage capacity, that can mitigate flooding and strengthen regional resiliency. We encourage the District to adopt a more forward-looking and geographically inclusive approach in the next iteration, particularly by prioritizing rural, inland, and agricultural regions like the Kissimmee Basins, and the Corkscrew and Big Cypress watersheds.

Furthermore, the Resiliency Plan should serve as a cohesive framework that aligns and integrates the District's existing initiatives. Programs like the Northern Everglades and Estuaries Protection Program, Regional Water Supply Plans, and Strategic Plans, among others, should be designed to complement and inform the Resiliency Plan's goals and implementation. A more coordinated approach will enhance the effectiveness and long-term sustainability of these efforts.

#### 3. Nature-Based Solutions

We are encouraged by the updates to the Nature-Based Solutions (NBS) chapter, especially the inclusion of the Wetland Storage Area in the C-9 Canal Enhancement project. Of note in this chapter is the stepwise elaboration of the process for assessing and implementing NBS. The identification of NBS opportunities adjacent to canal systems using GIS-based parcel analysis is an excellent first step. We encourage the District to engage the public earlier in the process to enhance decision-making and to help maximize the benefits of these projects for all stakeholders, and to further advance this work more holistically, we recommend:

- Integrating NBS into project cost-benefit analyses using Federal Emergency Management Agency's ecosystem services valuation module to capture comprehensive benefits of the project.
- Evaluating ecosystem service trade-offs between NBS and gray infrastructure.
- Developing a catalog of hybrid infrastructure typologies with performance ratings (e.g., levee + bioswale + retention pond).
- Establishing clear ecological performance metrics (e.g., wetland acreage and health restored, aquifers recharged, saltwater intrusion reduction, improved wetland hydroperiod function) and using them to prioritize projects.
- Ensuring future retrofitting potential is considered for hardened structures.

- Using NBS ideas to store more water in the Kissimmee Valley and Corkscrew Watershed to reduce drainage projects.
- Integrating stakeholder participation and incorporating feedback during all steps of the process.
- Leveraging a diversified portfolio of public-private funding partnerships to support resilience projects where gaps occur.

#### 4. Compound Flooding and Multi-Hazard Modeling

We support the District's efforts to develop a methodology for evaluating compound flooding, particularly in transitional coastal areas. However, we request clarification in the Plan on the expected timeline for completion of this methodology. In addition, we strongly encourage the integration of multi-hazard models that can simulate interactions between storm surge, extreme rainfall, and groundwater rise, particularly within the FPLOS framework. We recommend the following key steps to improve compound flood risk management in South Florida and aid policy development: (1) Involve diverse stakeholders in developing modeling, assumptions, and limitations to broaden the understanding of risk characteristics in improved multi-hazard modeling. (2) Incorporate each flood type (coastal, rainfall, groundwater) associated with compound flooding in South Florida into flood hazard maps. (3) Identify all direct, indirect, and cascading physical and economic impacts of compound flood events across communities and sectors of our economy. We suggest consultation and collaboration with experts across multiple disciplines in the region and local communities to inform the extent of exposure and differential vulnerabilities. (4) Amplify the public communication of compound flood risk and its disproportionate impacts through diverse channels. (5) Delineate priorities, needs and actionable guidance for research, emergency management, and disaster risk management programs. (6) Form an advisory group to guide decision-makers for policy development regarding compound flood risk management in South Florida.

#### 5. Format, Content, and Future Updates

The updated format of this year's Plan is a notable improvement, and we appreciate that it is more accessible, organized, and easier to navigate. We believe that waiting five years for revisions may be too long to address growing concerns especially in North of Lake Okeechobee and Western watersheds, so we encourage updates sooner given the rapid rate of development in South Florida. Section 380.093(5), Florida Statutes requires the Florida Department of Environmental Protection's annual submission of a Statewide Plan by December 1; continuing to update the District's Plan each year in conjunction with the Statewide Plan will allow the District yearly opportunities to submit new projects. We also offer the following recommendations for ensuring future versions remain transparent and action-oriented:

- Including a summary table outlining newly added projects (not in prior plans), with brief descriptions, estimated costs, and current status.
- Tracking and presenting tangible progress since the last Plan (e.g., percent completion, permitting milestones, external funding).
- Providing a summary of stakeholder comments received and noting how they were addressed or incorporated into the final version.
- Developing a project tracker or dashboard that clearly shows each project's phase (e.g., design, permitting, construction) and funding status.

- Defining short-term (0–5 years), medium-term (5–20 years), and long-term (through 2100) goals with measurable indicators and adaptation pathways.
- Clarifying the relationships between programs frequently referenced in the Plan (e.g., FPLOS, CIP, CERP, and Resilient Florida) and adding a visual diagram that illustrates how they interact and inform resiliency planning.

#### Conclusion

Thank you again for the opportunity to provide input. We greatly appreciate the District's leadership and ongoing collaborative approach, especially through the Resiliency Coordination Forum, to building a more resilient South Florida. We hope these suggestions are helpful as the Plan moves toward finalization and implementation.

Sincerely,

Beth Alvi, Senior Director of Policy

**Audubon Florida** 

Meenakshi Chabba, PhD., Ecosystem and Resilience Scientist

The Everglades Foundation

Elizabeth Fata Carpenter, Esq., Executive Director

**Everglades Law Center** 

Elizabeth Fata Cargenter





June 25, 2025

South Florida Water Management District 3301 Gun Club Road West Palm Beach, FL 33406

Letter submitted electronically via: resiliency@sfwmd.gov

Re: Comments on the District Sea Level Rise and Flood Resiliency Plan June 2025 Draft

Dear South Florida Water Management District,

We are writing on behalf of the Conservancy of Southwest Florida, a regional non-profit that is now in its 61<sup>st</sup> year of "Protecting our water, land, wildlife, and future," and the Sanibel Captiva Conservation Foundation with a long-standing mission to "Protect and care for Southwest Florida's Coastal Ecosystems." We appreciate the opportunity to review this year's iteration of the South Florida Water Management District's Sea Level Rise and Flood Resiliency Plan and submit comments.

We recognize that you are now moving towards the official release of the District's Sea Level Rise and Flood Resiliency Plan in report form on a five-year schedule in the future, rather than on a yearly basis. While it certainly makes sense for the District to do so given the significant time and resources it surely takes to create this Plan, we sincerely hope that you will still find a regular mechanism to keep stakeholders updated on the internal updates that you have mentioned will still occur within the planning process including regular advancements to the resiliency projects list given the urgency of sea level rise and other climatic impacts on our communities. This is also especially important given the transparency and commitment to stakeholder engagement you've shown in your resiliency process to date.

Perhaps once a year, a verbal update/presentation can be given during the quarterly resilience coordination forum and/or a brief update document provided for this purpose. Or once a year workshops, like those that were held prior to the release of this year's plan would remain a welcome venue for engaging with the District around their resilience work, especially for those of us located farther from your headquarters. We ask that there still be a way for stakeholder feedback to be provided especially in written form so responding organizations and individuals have time to review and digest any updates that are presented. We also believe it is important for invested stakeholders and the public to have a way to track the progress of resilience projects that the District and/or partners are working on. We do recognize that this is the type of information partially captured in your mapping of current projects, but a dashboard or similar tool that is updated regularly to show changes in acquiring funding, and progress in design, construction, or other steps may be a powerful instrument for meeting this outcome.

Though we understand there are some well-outlined reasons why within the Plan, we continue to notice the very intense level of concentration of the District and the Corps efforts on projects located most primarily on Florida's Southeast coast. We recognize that this is in part due the prioritization of certain basins within the Flood Protection Level of Service (FPLOS) program, and that some of those assessments are just beginning or have not yet occurred in our region. We understand the District has a strong focus on the Central and South Florida (C&SF) Project as a primary mechanism for flood control and there are far less of the associated flood control structures located in Southwest Florida, and those present may not be experiencing the same urgent need for attention as some of those in the Southeast.

However, given the level of impact the western coast has experienced during recent hurricane seasons including significant flooding, and the threats that also exist to the water supply and quality in our portion of the District, we look forward to seeing the ways the District will continue to expand their efforts and share resources with our invested stakeholders on the west coast. For instance, some of the more expansive upcoming efforts like the Corps' Comprehensive C&SF Flood Resiliency Study and targeted restoration experiments and efforts like CERP, MEME, EMMA, and the Charlotte Harbor Flatwoods Project will surely have some important significance and applications for Southwest Florida. We further remind you of similar comments made by the Coastal and Heartland National Estuary Partnership (CHNEP) on last year's plan that spoke to this, where they outlined continued opportunity for the District to expand their resiliency focus within SWFL. CHNEP's full comment letter is contained in your public record. Please see the pertinent section of these comments appended at the end of this letter on the page after our signatures.

We notice that the criteria that the District is using to rank resiliency projects have continued to evolve some important nuances since first introduced in the 2021 Plan and we appreciate the largely objective scoring method that is in place as a result. However, there could be some additional explanation included as to why some criteria have shifted over time including between last year's and this year's Plan and why. For instance, social vulnerability was captured using a CDC index in the 2024 plan and is now a component of the FEMA's National Risk Index being used in this year's Plan. Is the FEMA index more appropriate given its focus on Natural Hazards?

We are pleased to continue seeing the strong focus on nature-based strategies within the District's projects and Plan. It is important that we all continually look to nature first for its protective advantages and contributions to our local nature-based economies and quality of life rather than as just an afterthought relative to grey options. Well-implemented hybrid projects can further capitalize on the best of both worlds. We know that the Corps has begun to more significantly incorporate nature-based solutions (NBS) into their projects including Coastal Storm Risk Management Studies being conducted in many places. However, they still face challenges in doing so, including as a result of still-evolving internal protocols and best practices, and likely now paired with additional current federal pressures on staffing and budget. Given that the District partners with the Corps on many projects, we hope you can continue to advocate and share your lessons learned around the meaningful integration of NBS into resilience and water resource efforts.

One particular category of NBS that the District can pursue that would show significant investment in and forward thinking about Southwest Florida resiliency is more protection of existing healthy coastal and inland habitats. This could occur through land acquisition or through the negotiation of conservation easements with landholders including agricultural producers. The preservation of mangrove forest, salt and freshwater marshes, and varied upland forests and grasslands can contribute to resilience, especially in light of the region's continually growing population, in a myriad of ways including providing physical protection from storm conditions, a place for important drinking water aquifer recharge, and a mechanism for excess water storage. The safeguarding of these important existing natural areas and water resources is typically a far more cost-effective approach than developing alternative water supplies, engineering flood-protection infrastructure, and even engaging in important ecosystem restoration activities. Economically and ecologically, protecting habitats and the ecosystem services they provide while they are still intact is a wise investment that eliminates some need for costly engineering projects serving to repair these functions in the future.

On the hybrid side, there appears to be some additional opportunity for the District to consider their use of concrete and related materials over the longer term with regards to greenhouse gas emissions and environmental utility. Many sustainable concrete mixtures continue to be developed that may have increased durability and other advantages that can make the return reasonable relative to initial costs and sometimes even surpassing that of standard mixtures. Other modifications like adding more complex 3-dimensional structure suitable for aquatic life settlement to hard components can help offset some of the negative environmental impacts this type of infrastructure can often have. The more complex surfaces of some 3-D printed seawalls and supplemental panels, for instance, likely increases their ability to absorb rather than just reflect incoming wave energy resulting in better environmental outcomes and less undermining of the structures themselves.

In Chapter 7, the reporting of an impressive 30% reduction in per capita water use over the last two decades is laudable. We hope the District continues to prioritize water conservation and protection of existing water supplies over developing alternative water sources whenever feasible. While of course there is need to develop alternative water supplies for irrigation and water consumption given the pressures of land use changes, population growth, and changing climatic conditions, most of these options come with additional expense and environmental impacts to manage.

We continue to applaud the District's science and data-driven approaches to achieving their mission and resiliency focuses including the extensive data analysis and modeling efforts being used and developed by staff to characterize past, future, and current climate conditions. It's clear Dr. Carolina Maran has been a strong guiding force for the District's resilience work, as well as strong partnerships with the State's former Chief Resilience Officer, the Resilient Florida Program, and the Florida Flood Hub.

We recognize that significant changes have been occurring at the Federal- and sometimes State-level with the recent installment of the new Federal Administration. One development that seems to have some large potential ramifications for the resiliency work of the District, is the targeting of particular FEMA funding programs. The Building Resilient Infrastructure and Communities (BRIC) Program has already been cut according to an April press release, which includes rescinding funding that has already been awarded in past years. It is also not yet clear what the future of FEMA as an agency may be and if similar changes may affect other funding sources including the Hazard Mitigation Grant Program (HMGP), but it appears to be an important source of support for multiple ongoing District projects as listed in tables 10-1 and 11-3 and for those that might be proposed in the future. Clearly its uncertain how this issue may evolve, but it could be worth acknowledging in the Plan, or including as a relevant discussion item during upcoming resiliency coordination forums.

Lastly, the following handful of items are those of a more specific editorial nature that we noticed upon read through of the draft:

- There are multiple instances where some of the images currently included in this year's plan are of poorer resolution which makes them hard to read (for example, figures 2-4, 4-2, 4-8, 8-2, 8-4, 8-8 through 8-11, etc). If possible, these figures should be swapped out for versions with more readable text including labels and axes.
- On page 42, the text and figure 4-2 depict rainfall change factors associated with future predicted rainfall events (1-day, 25-year and a 3-day, 100-year event). However, it is not clear what future year these projected change factors apply to. 2040? 2070? Please clarify.
- There appears to be no difference visually between figures 4-4 and 4-5. It seems that with the influence of heavier rain events and SLR, the future flood protection level of service should be somewhat reduced in some basins relative to that provided now even if upgrades and improvements to the C&SF Project are made. Is it possible there should be a different map depicted for figure 4-5?
- For table 4-2 of example FPLOS performance metrics, can a legend of the color-coding scheme be included? Some of it is obvious in that red shading clearly means low FPLOS is being provided at a particular basin, and green means a high level of FPLOS is being provided. But there is at least one instance of pink shading being used (Lake Hart LMA) and it is unclear why. Also, what does the acronym LMA refer to? Does the use of "future conditions" in the column headings (as combined with SLR and rainfall change factors) refer to assumed land use changes?
- Table 5-3 on page 69 likely needs an adjusted caption. It appears the caption from Figure 5-3 was copied over but doesn't describe the information contained within the table.

- In the first paragraph of Chapter 6, sentence 4 contains the phrase "changes to distribution and timing," which is a bit unclear as to what it is referring to. Is it meant to refer to some aspect of water within the Everglades?
- On Page 82, there is reference to a District-maintained regional FAS monitoring well network. Can there be a sentence or two added that details how often that monitoring occurs?
- While the Plan notes the importance of water reuse, include on page 86, it should more explicitly capture the level of care that should be exercised in the application of reclaimed water given its potential to contribute to excess nutrient levels in nearby water bodies.

Thanks again for the level of engagement the District has exercised with stakeholders across the region and we look forward to following the continuing progress of your resiliency work.

Carrie Schuman, Ph.D.

Climate Resilience Advisor, Conservancy of Southwest Florida

Matt DePaolis

Environmental Policy Director, Sanibel Captiva Conservation Foundation

Appended excerpt of the Coastal and Heartland National Estuary Partnership's comments on the 2024 draft of the plan that we reference above in our comments on the 2025 draft:

#### More Priority Projects aimed at Vulnerable West-Coast SFWMD Communities

In reviewing the SFWMD Sea Level Rise and Flood Resiliency Plan Priority Projects 2024 interactive map, it is readily apparent that there are relatively fewer projects identified for vulnerable west-coast SFWMD communities than for the east coast. This seems to be potentially related to the SLRFRP outlining the goal of the planning to identify priority projects to improve the Central and Southern Florida Project (C&SF) System and the Big Cypress Basin flood control infrastructure. A more comprehensive SLRFRP would result from expanding the goal, so that in addition to enhancing the C&SF and Big Cypress Basin, this plan also incorporates other previously identified priority projects throughout the SFWMD, particularly in those areas outside the Big Cypress Basin on the west coast of Florida.

Historically it was understood that the C&SF was not adequate to address water management in the Western Everglades area (as only 2 projects, C-43 and Picayune, were originally included in the 40 major CERP "yellow book") - especially those parts that were outside the Big Cypress Basin area. Therefore, the Southwest Florida Feasibility Study (SWFFS) was initiated in 2001 to identify environmental problems and opportunities in Southwest Florida and develop a comprehensive watershed management plan for the region outside of the Comprehensive Everglades Restoration Plan (CERP) geographic area. For more than a decade, many agency officials (including the SFWMD) and natural resource management professionals (including myself) participated in numerous interagency meetings to develop a detailed list of priority projects that would improve water management to reduce flooding, recharge aquifers and wetlands and return more natural flows to areas in need of hydrological restoration in this Western Everglades region of the SFWMD. The Southwest Florida Comprehensive Watershed Plan (SWFCWP) evolved out of the SWFFS, to better address problems, needs, and opportunities within a regional watershed context and to recommend site-specific project implementation studies. Unfortunately due to funding limitations given other CERP and other priorities at the time, the SWFCWP Tentatively Selected Plan was only a subset of

the original voluminous list of water projects. While some additional Western Everglades restoration projects have been added or are being added, such as the Western Everglades Restoration Project, there are still many water projects that had been identified in SWFCWP planning process which are not moving forward with project implementation. With few priority projects presently identified in this draft SLRFRP for that area, it would be advantageous to resurrect those and incorporate them into this plan where they are still incomplete and feasible so they can be implemented.

Communities devastated by Hurricane Ian including Fort Myers, Fort Myers Beach, Pine Island, Sanibel, and Captiva have little to no identified priority projects in the current draft SLRFRP, though they are in the process of rebuilding - so this would be a key opportunity to assist in the redevelopment of those areas in a way that helps them become more resilient to sea level rise and storm surges. Components of the Pine Island Buffer, Sanibel Wetlands Complex, Little Estero Island, Punta Rassa and San Carlos Bay SWFCWP proposed priority projects (see map right, projects are 48, 51, 42, and 50 respectively) could still be beneficial in improving resiliency, flood mitigation, and habitat in these communities if those components are still feasible and could be incorporated now into this planning effort to be completed. Other projects such as Yucca Pens (56) are only initializing with inadequate funding for their completion, but could provide immeasurable benefits to provide natural stormwater retention to reduce coastal flooding and provide base flows needed to sustain healthy salinity levels in tidal and coastal waters in the face of continued sea level rise if included in the SLRFRP.

