



Department of Regulatory and Economic Resources

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August 19, 2020

Susan E. Layton
Chief, Planning and Policy Branch, Norfolk District
US Army Corps of Engineers

Dear Ms. Layton:

In my capacity as Deputy Mayor with responsibility for the Miami-Dade County Department of Regulatory and Economic Resources, the Mayor has asked me to transmit the following overall comments and attached detailed comments on the Tentatively Selected Plan (TSP) of the *Miami-Dade Back Bay Coastal Storm Risk Management Draft Integrated Feasibility Report and Programmatic Environmental Impact Statement* (the Report). Our community is highly exposed to coastal storms and flooding. If Miami-Dade were to be hit by a strong hurricane this year, multiple studies have shown the damages would be in the billions. We welcome the opportunity to continue partnering with the US Army Corps of Engineers (USACE) to proactively address these risks and protect our residents, businesses, and wider economy.

This Report has further confirmed the compelling and urgent federal interest in proactively investing in reducing these risks. As this Report demonstrates, the potential damages to just the structures within the limited focus areas exceeds \$60 billion. The return on investment in protection is significant. For some individual measures, the benefits exceed the cost by as much as 45 to 1. We are keen to invest before the storm hits to protect our community and reduce future damages, and we share the USACE's goal to move expeditiously. Certain measures in the TSP such as protecting critical infrastructure, elevating and flood-proofing buildings, and enhancing natural protections are measures that the County fully supports and would like to advance with certain requests outlined in the comments below and attached. The structural measures in the TSP present several significant challenges that must be resolved before finalizing the Report.

The following requests to modify the TSP are organized in the following manner: overall comments on the entire plan, comments on the critical infrastructure measures, comments on the Natural and Nature-Based Features, comments on the nonstructural measures, and comments on the structural measures. Additionally, attached is a complete list of comments, concerns, and technical questions provided by our County scientists, engineers, and subject-matter experts (Attachment 1) and the Miami-Dade County Board of County Commissioners Resolution R-1367-19 (Attachment 2). These requests are intended to better protect our community and better align with Greater Miami and the Beaches Resilient305 Strategy and other USACE on-going projects in Miami-Dade County. The County needs to understand how these comments impact the finalization of the Report.

Overall comments

- **The USACE must assess flood risk more completely before recommending structural measures which could negatively impact the existing Central and Southern Florida Flood Control System.** Throughout this process, Miami-Dade County has expressed the need to assess flood risks in a way that captures our local hydrology and flood risks to ensure that measures to address storm surge are well-suited to local conditions and do not have unintended consequences on the existing flood control system. During the initial USACE scoping process to identify [Problems, Opportunities, Objectives, and Constraints](#), the County and the USACE identified key problems that compound our risk from coastal storms, including tidal flooding, rainfall, and elevated groundwater levels. This feasibility study seeks to address one element of coastal storm risk (storm surge); however, before recommending construction of any structural measure, it is necessary to assess the potential impact on other aspects of our local flood risk that have a higher impact and probability (e.g. rain-induced flooding, groundwater rise). Historically, all hazards associated with a coastal storm, such as surge, elevated groundwater levels, and rainfall-induced flooding, happen simultaneously. It is essential that the USACE quantitatively evaluate the ways in which the structural measures affect other coastal storm risks. The USACE must also confirm any induced flooding can be feasibly mitigated. Miami-Dade County seeks to find solutions that minimize long-term operations and maintenance costs.
- **The proposed structural measures should be well aligned with and integrated with other local, state, and federal projects.** To ensure the proposed structural measures are reducing flood risks, this feasibility study should be well coordinated with other studies and improvements to the existing flood control system managed by the South Florida Water Management District and the USACE. Any proposed measure must be analyzed in the context of ongoing and planned projects. It is recommended that the USACE expand coordination and integration with other studies like the Comprehensive Everglades Restoration Plan (CERP) and its programs and projects, the Biscayne Bay Coastal Wetlands Project, the Central and Southern Florida (C&SF) Flood Resiliency Study, the USACE South Atlantic Coastal Study (SACS), improvements to the Intracoastal Waterway, the South Florida Water Management District's Flood Protection Level of Service program, and other coastal storm risk management studies.
- **The proposed structural measures should not negatively affect the environmental, economic, cultural, and aesthetic value of the Biscayne Bay.** Biscayne Bay is the centerpiece of our community and it is essential to our economy and community. The proposed structural measures will negatively impact water quality in Biscayne Bay. To ensure water quality is not negatively impacted, the USACE must adhere to existing rules and priorities including the Biscayne Bay Aquatic Preserve Act, Chapter 24 of the Miami-Dade County Code of Ordinances, and other policies focused on water quality in Biscayne Bay. It is critical that the USACE demonstrates potential effects on water quality, federally listed species and critical habitat, water access, public open space, and viewsheds as requested by the Miami-Dade County Board of County Commissioners in Resolution R-1367-19.
- **The TSP should equitably address storm surge risk across all neighborhoods.** Many neighborhoods in Miami-Dade County have already experienced environmental and social injustices, past and present, which contribute to social vulnerability. Equitable investments are a priority as the County continues adapting to a changing climate. Miami-Dade County

commends the USACE for their use of the Center for Disease Control's Social Vulnerability Index and requests that social vulnerability and equity be incorporated at all stages of the project.

Comments on the critical infrastructure measures

Protecting existing critical infrastructure from coastal storms remains one of the County's top priorities. The County agrees that this component should move forward expeditiously. Our community relies upon these assets to provide clean water, sewer service, emergency management, public safety, and many other critical services. Critical infrastructure is crucial to reducing the loss of life during and immediately after storms and to support a better, faster recovery of our regional economy. Should our community be without water or wastewater service, the economic, environmental, and social costs would be substantial.

- **The County requests that additional critical facilities be included in the TSP**, including additional water and wastewater assets, additional airport and seaport assets, additional municipal facilities, hospitals, community centers, emergency management assets, other power infrastructure, and key evacuation routes including those connecting the islands back to the mainland.
- **The County requests that the economic analysis include the costs from loss of service.** It is essential to use best practices and quantify the benefits of avoiding disruption to these services to capture their full value. The TSP only accounts for damage to the physical structure which significantly underestimates the real risk. For example, the loss of wastewater service or disruptions to hospital operations could severely jeopardize lives and safety and would have far-reaching economic implications.

Comments on the Natural and Nature-Based Features

Natural and Nature-Based Features (NNBFs) are overwhelmingly supported by our residents, community leaders and local experts in public meetings and during the public comment period, thus it is essential to incorporate them into the proposed measures. The Miami-Dade County Board of County Commissioners previously expressed in Resolution R-1367-19 that NNBFs were a priority to the County. NNBFs should be fully integrated into the plan before the next milestone. The Cutler Bay NNBF is one small component of a larger opportunity to expand NNBFs for coastal storm risk reduction across Miami-Dade County and to include them as features with other measures.

- **The County requests additional NNBFs be included in the TSP.** The USACE study, "Miami-Dade Interagency Coastal Flood Risk Reduction Study," demonstrated that NNBFs can provide meaningful flood damage reduction in addition to their myriad other benefits. Additionally, Congress specifically included NNBFs as a planning requirement for USACE flood risk reduction projects. The County requests the USACE include additional NNBFs, particularly in southern Miami-Dade County, along the causeways, and in other areas highlighted in the attached comments and in public comments. Furthermore, it is essential to coordinate with other federal restoration projects such as the Comprehensive Everglades Restoration Project, including the Biscayne Bay Coastal Wetlands Project, and others to ensure this project is supportive of the broader goals that the USACE is already heavily

invested in. The County looks forward to working with the USACE to identify additional targeted areas of interest that should be included. Other project measures should also include NNBFs to the maximum extent feasible.

Comments on the nonstructural measures

Nonstructural measures are a priority for Miami-Dade County. These cost-effective protective measures help address multiple flood risks simultaneously. The County requests that these measures remain in the TSP and move forward expeditiously.

- **The County requests the USACE significantly expand nonstructural measures.** As this study demonstrates, more than 196,000 structures worth more than \$130 billion are within the focus areas; however, the current TSP recommends elevating or floodproofing only 2,300 structures. Many more structures could be cost-effectively protected within the study area and should be included in the TSP.
- **The County requests the USACE revisit the assumptions used to identify properties** for nonstructural measures to ensure that the analysis does not systematically undervalue the benefits of protecting apartment buildings, smaller buildings, and properties in historically redlined neighborhoods. The County looks forward to working with the USACE to refine the nonstructural analysis and the nonstructural implementation plan during optimization to ensure it is serving Miami-Dade County businesses and residents and does not unintentionally exacerbate existing inequalities.
- **The TSP does not currently include acquisitions; however, if future analyses indicate property acquisitions are recommended, the County will not support that element unless the acquisitions are voluntary.** The County will not support mandatory acquisitions for nonstructural measures and will request a waiver from the policy of mandatory acquisition. Miami-Dade County is in support of Monroe County's waiver request on this issue, and we cannot support mandatory acquisitions for this purpose.

Comments on the structural measures

The conceptual level designs of the structural measures of this TSP present many significant issues which need to be resolved. Miami-Dade County's flood risk challenges are unique in terms of their complexity and scale and have not yet been adequately accounted for in this feasibility study nor in the conceptual designs of measures. The proposed structural measures have no local precedent making it more difficult for the County and other stakeholders to provide adequate and accurate input to the USACE.

- **The hydrology and regional flood control system in South Florida is complex, and additional analysis is needed on the proposed measures.** The County shares the South Florida Water Management District's concerns that the analysis conducted does not account for inland drainage implications and future extreme rainfall. Recognizing the constraints of the 3x3 planning process, it is nevertheless necessary to evaluate inland effects and possible impacts to the operation of the existing Central and Southern Florida regional flood control system and groundwater resources prior to recommending structural measures of this scale and consequence. This will ensure they are compatible with the existing regional flood control system and future planned changes. The proposed structural measures coupled with rising

groundwater levels and extreme weather events may compound flooding both upstream and downstream of the structures. This Report should include an analysis of extreme dry and wet conditions and of more frequent rainfall events. Please refer to the comments provided by the County's subject-matter experts in the attached document.

- **The Report should make a clearer distinction between the existing Central and Southern Florida regional flood control system and local stormwater systems.** The USACE must be clear in this distinction with explicit acknowledgement of the existing regional flood control system constructed by the USACE and with an explanation of how the existing system will interact with proposed measures. The existing system provides critical flood protection to most of the County and is under strain from changing climate conditions. The existing system is an integral part of preparing for and recovering from tropical storms and hurricanes; thus, the system's current and future conveyance capacity cannot be diminished. This should not be conflated with a "storm sewer system" as defined in [ER 1165-2-21](#).
- **The proposed structural measures will significantly impact existing, densely populated neighborhoods and cultural areas. In order to move forward with structural measures, Miami-Dade County and the affected cities need to engage in an extensive community design process in order to ensure acceptance in the community.** As the project moves forward, there must be a wider conversation about the proposed alternatives with particular emphasis on the feasibility and design of structural measures. This will help ensure any proposed designs are multi-purpose and align with community preferences for incorporating NNBFs, maintain access to the water, have minimal environmental impact, minimize fragmentation of neighborhoods, and minimize disruption to cultural resources. Working with the community throughout this process is crucial to building consensus, generating local support, and the ultimate success of the project. Municipal government staff, university partners, community leaders, other subject-matter experts, and local groups need to be included in a structured design process before moving forward with these measures.
- **The proposed structural measures have the potential to significantly change evacuation times and procedures and have the potential to compromise emergency egress and access.** The County requests that the USACE analyze the implications of the proposed measures on evacuations including the time that would be required to successfully operate the gates ahead of a storm. Additionally, the County requests that the USACE analyze the implications for streets and neighborhoods that would lose their access and egress when the structures are fully closed. It is essential to maintain emergency access to all areas before, during, and after a storm. The County requests that the USACE work with the Miami-Dade County Office of Emergency Management and key stakeholders to minimize the impacts on evacuation and emergency access.
- **The proposed structural measures have the potential to significantly impact waterfront access and the environment.** The County requests that the USACE further study the water quality and environmental implications of the structural measures, especially the forward pumps, in order to identify ways to avoid environmental impacts as much as possible. Miami-Dade County's tourism and real estate economy is intricately tied to the health of Biscayne Bay. As the USACE correctly notes in the Report, tourism to Biscayne Bay, the oceanfront beaches, cruise ships, and cultural areas contributes to an industry totaling over \$26 billion

from overnight visitors. Much of this industry is dependent upon the health and accessibility of the local natural resources. As previously communicated through Resolution R-1367-19, we request that the USACE design any project along the coastline in a way that acknowledges the public's desire to view, access, and appreciate Biscayne Bay.

Thank you for the opportunity to comment. Miami-Dade County appreciates your continued partnership and looks forward to working with the USACE to refine the TSP. We look forward to the discussion about how to best address these requests as expediently as possible. The County shares the USACE's goal to advance many of these measures to construction; however, the structural measures represent significant and extensive changes to the existing regional flood control system. The 3x3 process limits the ability of the County to fully evaluate structural measures of this scale. It may be prudent to consider whether these proposed structural measures should be considered as part of a larger study such as the Central and Southern Florida (C&SF) Flood Resiliency Study.

As the local sponsor, the County may provide additional recommendations following review of the comments submitted by our municipal colleagues and other key stakeholders. In order to develop a final plan during optimization, we will need extensive coordination with stakeholders and frequent updates by the USACE. As this plan moves ahead to future milestones, please note that the County will be under a new administration as of November 17, 2020. During the transition, every effort will be made to brief the incoming elected officials to ensure that there will be no break in the coordination between the USACE and the County as the local sponsor.

Sincerely,



Jack Osterholt
Deputy Mayor, Miami-Dade County

Attachments

- c: The Honorable Chairwoman Audrey M. Edmonson and Members, Board of County Commissioners
The Honorable Mayor Carlos A. Gimenez, Miami-Dade County
Office of the Mayor Senior Staff
James F. Murley, Chief Resilience Officer, Department of Regulatory and Economic Resources