



# Everglades Coalition

1000 Friends of Florida  
Angler Action Foundation  
Audubon Florida  
Audubon of Southwest Florida  
Audubon of the Western Everglades  
Audubon Society of the Everglades  
Backcountry Fly Fishers of Naples  
Calusa Waterkeeper  
Cape Coral Friends of Wildlife  
Center for Biological Diversity  
Conservancy of Southwest Florida  
Defenders of Wildlife  
“Ding” Darling Wildlife Society  
Earthjustice  
Environment Florida  
Everglades Foundation  
Everglades Law Center  
Everglades Trust  
Florida Bay Forever  
Florida Conservation Voters Education Fund  
Florida Defenders of the Environment  
Florida Keys Environmental Fund  
Florida Native Plant Society  
Florida Oceanographic Society  
Friends of the Arthur R. Marshall  
Loxahatchee National Wildlife Refuge  
Friends of the Everglades  
Hendry-Glades Audubon Society  
International Dark-Sky Association,  
FL Chapter  
Izaak Walton League of America  
Izaak Walton League Florida Division  
Izaak Walton League Florida Keys Chapter  
Izaak Walton League Mangrove Chapter  
Lake Worth Waterkeeper  
Last Stand  
League of Women Voters of Florida  
Martin County Conservation Alliance  
Miami Pine Rocklands Coalition  
Miami Waterkeeper  
National Audubon Society  
National Parks Conservation Association  
National Wildlife Refuge Association  
Natural Resources Defense Council  
North Carolina Outward Bound School  
Ocean Research & Conservation Association  
Peace River Audubon Society  
Reef Relief  
Sanibel-Captiva Conservation Foundation  
Sierra Club  
Sierra Club Florida Chapter  
Sierra Club Broward Group  
Sierra Club Calusa Group  
Sierra Club Central Florida Group  
Sierra Club Loxahatchee Group  
Sierra Club Miami Group  
South Florida Audubon Society  
Southern Alliance for Clean Energy  
The Florida Wildlife Federation  
The Institute for Regional Conservation  
The National Wildlife Federation  
Theodore Roosevelt Conservation  
Partnership  
Tropical Audubon Society

August 19, 2020

Ms. Justine Woodward  
U.S. Army Corps of Engineers  
Norfolk District  
803 Front St  
Norfolk, VA 23510  
MDBB-CSRStudy@usace.army.mil

Board of County Commissioners, Miami-Dade County  
Stephen P. Clark Government Center  
111 NW 1st Street, Suite 220  
Miami, Florida 33128

*Sent electronically*

**SUBJ: USACE Back Bay Coastal Storm Risk Management Draft Integrated Feasibility Report and Programmatic Environmental Impact Statement**

The Everglades Coalition, an alliance of organizations committed to the protection and restoration of the Greater Everglades, are providing comments on the Miami-Dade Back Bay Coastal Storm Risk Management (CSR) Draft Feasibility Study and Programmatic Environmental Impact Statement (EIS). The Everglades Coalition supports climate adaptation and mitigation strategies that benefit people, natural environments, and Florida’s economy. While we appreciate the recent efforts by the Army Corps and the Miami-Dade County to advance important mitigation projects related to storm surge risk, we want to see project goals that address a larger scope of impacts associated with climate change. The climate crisis is escalating, and Florida is one of the most climate change-threatened states in the country. Storms are slowing down and have been getting more intense – a dangerous trend that will continue until we take action to build our clean renewable energy economy. According to NOAA, nuisance flooding in the coastal U.S. is between 300 to 900% more frequent than it was 50 years ago.<sup>(1)</sup> This will continue to be exacerbated with sea level rise and coastal storms and, as such, should be addressed as these projects and recommendations advance towards implementation.

*Committed to full protection and restoration of America’s Everglades*

While we encourage investments in Miami-Dade that address storm surge risks, **the proposed 4.6-billion dollar plan is problematic.** It exacerbates equity problems, exposes certain areas to increased flood risk, and does not address or may even worsen chronic flooding from sea level rise. Furthermore, the study does not include costs to mitigate for the large-scale environmental impacts mentioned in the draft EIS, including impacts to seagrass, corals, and other species in Biscayne Bay. **The Everglades Coalition therefore asks that Miami-Dade County and USACE to adopt a locally preferred plan that protects the natural environment, including the biodiversity of the Everglades ecosystem in coastal Miami-Dade, that includes adaptation strategies for future sea-level rise and flooding, that properly accounts for equity, and that works holistically with other ecosystem restoration projects.**

### **Coordination with interrelated projects**

The draft EIS states that an identified opportunity and desirable future outcome is to "enhance and support Comprehensive Everglades Restoration Plan [CERP] projects". However, the draft EIS fails to describe how USACE and/or Miami-Dade County analyzed potential impacts to or opportunities to enhance Everglades restoration efforts in the County. In fact, when "CERP" is searched in the draft EIS it appears about 20 times, using repeated sentences. However, the draft EIS did not address how the Back Bay Study presents an "opportunity" or how the Tentatively Selected Plan (TSP) may impact Everglades restoration efforts.

Therefore, we request that USACE and Miami-Dade County coordinate the Back Bay Study with other current efforts in the region, including but not limited to: Biscayne Bay and Southeastern Everglades Ecosystem Restoration (BBSEER), the South Atlantic Coastal Study (SACS), the SFWMD Flood Protection Level of Service (FPLOS) Program, and the upcoming USACE restudy of the Central & South Florida Project (also referred to as the C&SF Project Flood Risk Management Infrastructure Resiliency Study). It is important for these activities to be coordinated and to understand potential cumulative impacts that recommendations will have on the region and other projects underway.

### **Natural and nature-based features (NNBF)**

We agree with Miami-Dade Regulatory and Economic Resources Department's January 8, 2019 letter to USACE Norfolk District when it stated that as part of priorities to increase the County's resilience to storm surge and coastal flooding, the County wants to "acquire and/or restore lands that can provide meaningful flood damage reduction based on the US Army Corps of Engineers' previous study on the efficacy of non-structural solutions in Miami-Dade County... Healthy mangrove forests can provide meaningful wave attenuation and the County and State have existing programs that can acquire and restore areas of interest." It also stated that the "county would like the Corps to seriously consider natural infrastructure either alone or as part of hybrid solutions supporting grey infrastructure." It went further to describe that "natural and nature-based features were overwhelmingly the top priorities expressed by participants at the November 8th [2018] charrette." (Draft EIS, Appendix D, p. 200).

**We ask that USACE and Miami-Dade prioritize more natural and nature-based features for coastal storm protection (such as coral reef restoration, living shorelines and mangrove plantings), and account for the costs of mitigating negative impacts to the natural environment.** Unfortunately, this proposal largely omits investments in natural and nature-based features (NNBFs) that are supported by the local community, and that would provide multiple

*Committed to full protection and restoration of America's Everglades*

bottom-line benefits to our community and environment. The implementation of large amounts of grey infrastructure-based solutions will cause permanent losses of corals/hardbottom habitat, mangrove, and open water benthic habitats (Draft EIS, Chapters 7.3 and 8).

NNBFs have not been properly considered in this proposal. Coral reefs and mangroves buffer wave energy, moderating the impacts of storms and reducing the vulnerability of coastal regions. Mangroves also protect shorelines from erosion, floods, and damaging storm winds while protecting species that are the basis of a \$7.6 billion annual contribution to the economy from the seafood industry.<sup>(2)</sup> Furthermore, corals also provide large economic benefits. According to the National Oceanic and Atmospheric Administration (NOAA), the economy surrounding coral reefs in southeast Florida “have an asset value of \$8.5 billion, generating \$4.4 billion in local sales, \$2 billion in local income, and 70,400 full and part-time jobs.”<sup>(3)</sup> Corals, an endangered species, are already vulnerable due to bleaching events in recent years, causing disease, death, and decline of corals and the ecosystems they support.

In addition to natural flood and erosion control, NNBFs improve air and water quality; enhance habitats for birds, fish and other wildlife; increase recreational opportunities and land values; recharge groundwater; and sequester carbon pollution, among other benefits. NNBF solutions to increasing our resiliency has been a clear preference of stakeholders and the public. NNBFs, such as mangroves, have been proven to provide flood damage reduction benefits at significantly lower costs.<sup>(4)</sup> **We request that NNBFs form the basis for a locally preferred plan, focusing on NNBF projects identified by community-based strategies like Resilient305<sup>(5)</sup> and others.** These opportunities include living shorelines, coral reef restoration, dunes, mangrove installations, and more NNBFs in public parks, streetscapes, bay and river walks, swales, seawalls, barrier islands, and other key locations. This study presents an opportunity to invest billions into resilience-building for Miami. We therefore urge Miami-Dade and USACE to include coral restoration, mangrove plantings and other NNBFs as these will not only provide coastal storm protection benefits and ecosystem restoration, but also benefit Florida’s economy and local livelihoods.

We further request that the USACE conduct an assessment of synergistic benefits that could come from the use of the Multiple Lines of Defense Strategy (MLODS).<sup>(6)</sup> Hardened infrastructure can work to a degree, however, various living shoreline projects can work in tandem with these and already existing structures to provide even more protection than they could on their own -- at a lower cost. Examples in coastal Louisiana have shown this strategy to work to protect local communities from coastal storms.<sup>(7)</sup>

### **Addressing Equity Concerns**

**It is also very important to the Everglades Coalition that resources are allocated fairly and equitably.** Although the draft feasibility study makes mention of the Social Vulnerability Index (SVI), it appears that the focus areas were ultimately selected based on property value. We are concerned that high-value properties are more likely to benefit from protection features, leaving under-resourced communities without crucial storm risk assistance. This disparity is shown by the proposal to elevate 184 private residences in Golden Beach, where the average home value exceeds \$4 million. This is not an equitable investment, given that roughly 19 percent of Miami-Dade's population live in poverty. Over 60 percent of Miami-Dade renters pay more than 30 percent of their salary on housing, thus making Miami the third least affordable city in the country.<sup>(8)</sup> Moreover, vulnerable populations are disproportionately affected by impacts of climate change, such as natural disasters, flooding, and sea level rise. The proposed plan calls for large concrete

*Committed to full protection and restoration of America’s Everglades*

floodwall features that will create divisions within community neighborhoods creating “winners” and “losers,” inevitably disrupting low-income community neighborhoods and increasing inequalities. Life safety concerns will be better managed when the most vulnerable populations receive comparable infrastructure level protection from storm impacts. It is unclear these considerations were included in the draft feasibility study and TSP. We are therefore urging the USACE and the County to decide on mitigation strategies that are equitable.

### **Stormwater Retrofits and Improvements**

The impacts of the TSP on water quality in Biscayne Bay include increased pumping of stormwater or altering flow. The TSP could exacerbate flooding from sea level rise and may negatively impact the stormwater system by altering drainage already failing due to sea level rise. Rain-based flooding during storms could become worse as a result of the flood barriers. The study must consider improving stormwater treatment, increasing permeability of surfaces, and alternatives for retention, treatment, and avoiding additional pumps.

### **Septic to Sewer Conversion**

The proposal identifies septic contamination during storms as an issue and an opportunity for beneficial outcomes, but then does not propose addressing septic-related risk. Septic tanks, particularly compromised tanks, present public health and environmental hazards. The County has over 100,000 septic tanks, over half of which are already not functioning due to sea level rise. Little River and Arch Creek, identified as priority areas in the study, have high concentrations of septic tanks -- including those on small lots and in flood-prone areas. A locally preferred plan needs to include a proposal to address this issue.

### **Fortifications for sewage treatment plants**

While the study identifies the County’s sewage treatment plants as vulnerable critical infrastructure, it fails to recommend fortifications to the plants. In particular, it failed to include the Central District Treatment plant located on Virginia Key on a barrier island in Biscayne Bay. During Hurricane Irma, for example, millions of gallons of sewage were spilled.

### **Conclusion**

The Everglades Coalition is requesting that the final plan equitably invest in Miami-Dade communities, avoid worsening sea level rise-based flooding impacts, avoid disrupting neighborhoods, avoid harming the environment and Everglades ecosystem, and leverage existing, community-based resiliency plans such as the Resilient305 Strategy, the Southeast Florida Regional Climate Change Compact’s Regional Climate Action Plan<sup>(9)</sup>, and the Urban Land Institute panel report.<sup>(10)</sup> These strategies involved years of stakeholder input and expert analysis and should be relied upon in this study to advance the county’s resilience and support or enhance the Greater Everglades restoration goals.

In summary, we urge Miami-Dade County and USACE to incorporate the following to improve the proposed plan.

- Coordinate with interrelated projects, including Everglades restoration efforts underway.
- Use alternative valuation methodologies that do not overemphasize property value and exacerbate inequalities by adopting a more holistic analysis, inclusive of quality of life

*Committed to full protection and restoration of America’s Everglades*

benefits, public health improvements, and likely increase in community resilience, in lieu of a traditional cost-benefit analysis that focuses on the tax base.

- Provide detail on how structural project priority areas were chosen, and we ask that all features reviewed indicate the number of residents, income and race demographics that would be protected so we can ensure equitable protection of our community.
- Avoid projects that place walls in neighborhoods that create “winners” and “losers” or harm Biscayne Bay.
- Fully account for the need to protect and defend the region’s affordable housing stock and most vulnerable residents that rely upon it from storm surge in the cost-benefit calculations.
- Ensure the project improves and does not worsen sea level rise-based flooding conditions.
- Utilize existing stakeholder-based strategic resiliency plans.
- Prioritize nature and nature-based features, “green” infrastructure including, but not limited to, living shorelines and coral restoration.
- Include and prioritize septic to sewer conversion in the plan, focusing on key areas, like Little River and Arch Creek.
- Include Miami Dade’s wastewater plants in fortification plans for critical infrastructure projects.
- Improve stormwater retention and treatment.

We believe that a proposal with these elements has the potential to reduce coastal storm risk cost-effectively, while also addressing the needs of those most vulnerable. As ground zero for sea level rise, we urge Miami-Dade County to adopt these recommendations in a locally preferred plan. For Miami-Dade County to be truly resilient, no one must be left behind. We thank you for your consideration of our comments and look forward to working with you to develop an improved plan that invests towards a more climate-ready Miami-Dade and America’s Everglades.

Sincerely,



Mark Perry  
Co-Chair



Marisa Carozzo  
Co-Chair

cc: Jim Murley, Miami-Dade County Chief Resilience Officer  
Miami-Dade County Mayor Carlos A. Gimenez  
Miami-Dade County Commissioner Barbara J. Jordan (District 1)  
Miami-Dade County Commissioner Jean Monestime (District 2)  
Miami-Dade County Chairwoman Audrey M. Edmonson (District 3)  
Miami-Dade County Commissioner Sally A. Heyman (District 4)  
Miami-Dade County Commissioner Eileen Higgins (District 5)  
Miami-Dade County Vice Chairwoman Rebeca Sosa (District 6)  
Miami-Dade County Commissioner Xavier L. Suarez (District 7)  
Miami-Dade County Commissioner Daniella Levine Cava (District 8)

*Committed to full protection and restoration of America’s Everglades*

Miami-Dade County Commissioner Dennis C. Moss (District 9)  
Miami-Dade County Commissioner Javier D. Souto (District 10)  
Miami-Dade County Commissioner Joe A. Martinez (District 11)  
Miami-Dade County Commissioner José “Pepe” Díaz (District 12)  
Miami-Dade County Commissioner Esteban L. Bovo, Jr. (District 13)  
Jack Osterholt, Deputy Mayor, Miami-Dade Regulatory and Economic Resources Department  
Alan M. Dodd, PE, City of Miami’s Chief Resilience Officer  
City of Miami Mayor Francis X Suarez  
Miami City Commissioner Alex Diaz de la Portilla (District 1)  
Miami City Commissioner Ken Russell (District 2)  
Miami City Commissioner Joe Carollo (District 3)  
Miami City Commissioner Manuel E Reyes (District 4)  
Miami City Commissioner Keon Hardemon (District 5)  
Miami City Manager Arthur Noriega  
Steve Adams, Institute for Sustainable Communities (SE FL Regional Climate Change Compact)  
Lauren Ordway, Institute for Sustainable Communities (SE FL Regional Climate Change Compact)  
Ana Carolina Maran, PE, PhD, SFWMD Chief of District Resiliency  
Chauncey Goss, SFWMD Governing Board Chairman  
Scott Wagner, SFWMD Governing Board Vice Chairman  
Charlie E. Martinez, SFWMD Governing Board Member

- 
- (1) <https://coast.noaa.gov/states/fast-facts/recurrent-tidal-flooding.html>
  - (2) <https://floridadep.gov/sites/default/files/benefits-of-mangroves-2-8-16.pdf>
  - (3) <https://floridakeys.noaa.gov/corals/economy.html>
  - (4) [http://www.conservationgateway.org/SiteAssets/Pages/floridamangroves/Mangrove\\_Report\\_digital\\_FINAL.pdf](http://www.conservationgateway.org/SiteAssets/Pages/floridamangroves/Mangrove_Report_digital_FINAL.pdf)
  - (5) [http://www.mbrisingabove.com/wp-content/uploads/Resilient305\\_final.pdf](http://www.mbrisingabove.com/wp-content/uploads/Resilient305_final.pdf)
  - (6) <http://www.mlods.org/>
  - (7) John A. Lopez "The Multiple Lines of Defense Strategy to Sustain Coastal Louisiana," Journal of Coastal Research 2009(10054), 186-197, (1 September 2009). <https://doi.org/10.2112/SI54-020.1>
  - (8) <https://www.miamiherald.com/news/business/real-estate-news/article229029784.html>
  - (9) <https://southeastfloridaclimatecompact.org/regional-climate-action-plan/>
  - (10) Waterfront Resilience, Miami, FL, Urban Land Institute (ULI) Advisory Services Panel Report, June 2019, [https://americas.uli.org/wp-content/uploads/ULI-Documents/ULI-ASP\\_Report\\_Miami\\_FINAL.pdf](https://americas.uli.org/wp-content/uploads/ULI-Documents/ULI-ASP_Report_Miami_FINAL.pdf)

*Committed to full protection and restoration of America’s Everglades*