

Mr. Arthur Noriega, V, City Manager

Miami Riverside Center (MRC)

444 SW 2nd Ave

Miami, FL, 33130



RE: City of Miami Climate Resilience Committee – Annual Report 2024

Dear Mr. Noriega,

2024 was the ninth year the Climate Resilience Committee (CRC) (formerly Sea Level Rise Committee – Ordinance No. 13640) has served as the City of Miami’s (City) advisory board focused on policies and procedures necessary to help the City, its residents, businesses, institutions, and natural systems respond, adapt and thrive in the face of increasing acute shocks and chronic stresses related to climate change and mitigate the causes of climate change via advancing efforts to reduce the emissions of greenhouse gases.

The impacts of climate change on the City include increasing flood risks related to sea level rise, rising groundwater levels, and more intense storms compounding the impacts of seasonal high tides, rain, and storm surge, increasing high heat days, saltwater intrusion, drought, extreme weather events, and water and vector-borne illnesses. This Committee evaluates and makes recommendations to strengthen the city’s physical, environmental, economic, social, and human capacity to be resilient to these impacts.

Anticipating, adapting, and flourishing in the face of change requires an honest review of data and future projections, a multi-disciplinary approach with long-term planning, and communication and policies that engage and encourage the private sector to contribute to the solutions.

Since 2016, I have attended most of the Committee meetings as a member of the public. I began serving on the Committee in August 2022 and was appointed Chair in January 2024. Our committee members are committed to the purposes set forth and volunteer considerable time and effort to ensure we can uphold our duties and responsibilities. We have had a productive year and look to continue contributing to the City's betterment.

(1) Whether the board is serving the purpose for which it was created.

The Committee continues to serve the purpose for which it was created, as outlined in City Ordinance No. 13857. In 2024, the Committee held eight Meetings and five Workshops. There are two aspects of the Mission of the CRC. First, recommending changes to the City Code and any City policy necessary to help the City, its residents, businesses, institutions, and natural systems adapt to, prepare for, and thrive in the various stresses related to climate change, including but not limited to emissions of

greenhouse gases, increasing flood risks, increasing groundwater levels, more intense storms resulting in high tides and storm surges, increasing high heat days, salt water intrusion, drought, extreme weather events, and water and vector-borne illnesses.

Two resolutions were voted on to recommend changes to the City Code and any City policy necessary to help the City, its residents, businesses, institutions, and natural systems adapt to, prepare for, and thrive in the various stresses related to climate change. These included a recommendation to phase out gas-powered leaf blowers as a suitable replacement technology already exists. Electric leaf blowers offer nearly the same air velocity without the numerous negative health implications that gas leaf blowers create. The City, as well as many residents and businesses, already utilize electric leaf blowers and electric lawn equipment. This proposed phase-out of gas leaf blowers is considered a low-hanging fruit in relation to the City's ambitious adaptation and mitigation goals. Gas leaf blowers' loud operating sound impacts human health. Their exhaust harms the operator and those nearby, and they emit significant greenhouse gas emissions despite their small size. There was the potential that the State may preempt the ability of the City to create a phase-out period, but that did not materialize. Hopefully, the Commission will take up this simple issue with significant health and sustainability implications for our community by implementing a phase-out period of gas-powered leaf blowers.

The second resolution concerned Miami-Dade County's proposed rebuilding of a waste-to-energy plant. It is encouraging that all five Commissioners chose to sponsor the item, hopefully leading to more sustainable waste diversion strategies, cleaner air and water for our community, and cost savings.

The second aspect of the CRC Mission is the responsibility to review and evaluate issues related to the use, disposition, or development of City-owned waterfront property and to advise the City Commission concerning those issues. This year, with the guidance and leadership of the Office of Resilience, the Criteria the CRC uses to evaluate projects was simplified. The CRC reviewed six waterfront properties throughout the year, offering feedback and support for projects or portions of them. It was essential for the public to have an opportunity to hear directly from the Applicant or the Applicant team for the two projects on Watson Island that were on the ballot this year. Additionally, the team from Miami River Bridge, the Hyatt Hotel project, presented the updated plans for their project. In addition to the Meeting Minutes containing the CRC recommendations, I submitted memoranda directly outlining the suggestions on some occasions. These include Peacock Park, Dinner Key Spoil Islands, and the Commodore Trail. The list of the six presentations and the presenters regarding City-owned waterfront property are:

- Dinner Key Spoil Island, David Hoot, Sr. Program Manager, Office of Capital Improvements (OCI) (March 4th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Miami River Bridge, Hyatt Hotel, Carlos Diaz, Iris Escarra, Greenberg Traurig, P.A.; Allen Matis HRM Owner LLC; Lenny, Alejandro Gonzalez, and Ben Hutchens, Arquitectonica (April 1st - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Peacock Park Shoreline, Manosh Varghese, Project Manager, William Davis, Drainage and Ryan St. George, Environmental/Permitting, Metric Engineering and Leonard Barrera Allen, Lead Coastal Engineer, Cummins I Cederberg (April 1st - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Legion Park - Keith Ng, Senior Project Manager, Capital Improvements Program (May 6th, [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))

- Project Review - Lease Amendment and Voter Referendum for the Watson Harbor, formerly Island Gardens, Watson Island (888 MacArthur Causeway), – BH3 IG Developer, LLC., Iris Escarra and Brian Dombrowski, Greenberg Traurig, P.A., Andrew Frey, DREAM (July 15th, [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Project Review – Redevelopment Agreement for Jungle Trail (1111 Parrot Jungle Trail) Ecoresiliency Miami, LLC., Neisen O. Kasdin, Co-Office Managing Partner, Akerman LLP (July 15th, [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))

(2) Whether the board is serving current community needs.

Unfortunately, the effects of Climate Change are already being felt across the community, leading to a greater need for adaptation and mitigation. For instance, Miami experiences approximately 130 days at or above 90°F (32.2°C) degrees per year, roughly 1/3 of the year. By 2080, this number is expected to increase to approximately 180 days per year. Due to Miami’s high humidity, the number of days with an extreme heat index (when it feels over 90° F/32.2°C) is projected to grow and exceed any other city in the country by 2050. July 2023 was Miami’s hottest month ever recorded (so far), with an average temperature of 86.5°F. For 46 consecutive days (June 11 – July 27, 2023), the heat index reached or exceeded 100°F. (*Source: City of Miami Heat Season Plan*)

The board directly serves the community's needs for many reasons. The board offers monthly in-person meetings that include many essential topics. They are also available for viewing live online and recorded to be available on demand. This provides the community access to critical information directly from Staff on various reports and efforts being undertaken. In previous years, some meetings were held in other locations around the City. However, due to the limitations of live streaming and recording the events with which many of the CRC attendees utilize, we have opted to maintain the meetings in the City Hall chambers. There is a public comment period at the beginning and end of each meeting. In 2024, the CRC received dozens of public comments.

(3) A list of the board's major accomplishments.

Listed in item 1 above is an overview of the two resolutions and six city-owned waterfront projects reviewed, which meet the CRC Mission directly. Besides these items, we kept an efficient and productive schedule. We had numerous presentations and discussions with industry experts, City Staff, and committee members. These presentations and discussions inform the public and the Committee, allowing us to accomplish the two main aspects of our Mission adequately. Dozens of people made public comments throughout the year, serving a community need to give the public a forum to express ideas, support, concerns, and questions.

Listed below are eight presentations from industry experts and no less than seventeen topics we discussed. The Committee, City Staff, and Commission must have timely, accurate, and robust data to make informed decisions that will impact the long-term health and safety of future generations of the

City. In March, Brian McNoldy, Senior Research Associate, Department of Atmospheric Sciences, Rosenstiel School of Marine, Atmospheric, and Earth Sciences, presented his important work regarding extreme heat on a global and local scale, sea level rise over various time scales that shows a trend of 0.26” increase per year since 1994, and increasing days with water above the mean high tide at the NOAA Gauge at Virginia Key. during our Meeting in March. The data that Brian creates can help create better predictions for future conditions. With numerous Universities in South Florida, the CRC and the City must continue to engage with educational, academic, not-for-profit, and other governmental entities and offices to help bring that information to the City Manager and Commission.

Sometimes, the data related to Climate Change can be overwhelming. However, we should be grateful for the many renowned experts who are focused on the future of South Florida and that we have robust data to inform planning decisions. During the November Meeting, award-winning, multi-disciplinary expert Jeffrey Huber, FAIA, ASLA, NCARB, LEED AP, WEDG, presented his recently published book, *Salty Urbanism: A Design Manual for Sea Level Rise Adaptation in Urban Areas*. The book offers fantastic visuals explaining the many aspects of hydrology, ecology, infrastructure, architecture, planning, and more that relate to the adaptation of South Florida. Jeff has a unique and engaging way of discussing this complex topic, and I highly recommend watching his presentation and reviewing the book. You can view it at the 35:45 mark of the November meeting [linked here](#). Rather than look at the coming climate changes with trepidation, utilizing the data and taking an honest look at the future will allow the Commission to move forward confidently, seeing opportunity in the needed changes. Jeff’s work helps share ideas of how that adaptation may occur.

- **Presentations:**

- A survey of Miami’s Climate Challenges: The Heat is On, and The Tide is High, Brian McNoldy – Senior Research Associate, Department of Atmospheric Sciences, Rosenstiel School of Marine, Atmospheric, and Earth Sciences (March 4th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Climate Gentrification, Managed Retreat - Theresa Pinto, Abigail Fleming, Sabrina Payoute, Elissa Klein (from University of Miami Environmental Law Clinic), Trenise Bryant (SMASH Miami) (April 1st - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Vulnerability Assessments -Tim Kirby, Office of Resilience Sustainability (June 3rd - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Commodore Trail Master Plan - Lorraine Rosado-Pietri, P.E., Capital Improvements Program (October 28th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- DTPW Rickenbacker Causeway Master Plan - MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW) (October 28th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Landscape of mangroves in Miami - Teej Ragsdale, CEO, Raad Labs & Jacob Werbin, CTO, Raad Labs (October 28th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Salty Urbanism: A Design Manual for Sea Level Rise Adaptation in Urban Areas - Jeffrey Huber, FAIA, ASLA, NCARB, LEED AP, WEDG (November 4th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))
- Value and Protection of Miami’s Urban Tree Canopy - Chris Baraloto (November 4th - [Agenda](#), [Agenda Packet](#), [Recording](#), [Minutes](#))

- **Discussions:**

- Heat Worker Standards

- Heat sensors
- Mangrove Replanting and Restoration. Resolution in Support of Florida SB 32 and HB 1581
- City of Miami Baywalk Mangrove Planting Benefits
- CRC Budget
- U.S. Army Corps of Engineers Miami-Dade Back Bay Coastal Storm Risk Management Draft Feasibility Report
- Leave No Trace Policy
- City of Miami Leave No Trace Policy
- Ground Floor Heights impact on future-proofing buildings
- City of Miami Extreme Heat Plan
- BE305 Challenge Awards and Energy Star Top City
- Recommendations for FY 24-25 City Budget
- City of Miami Public Electric Vehicle Roadmap
- Miami-Dade County Draft Urban Forestry Plan
- King Tides
- Local Business Leaders Community Involvement
- Tree Preservation and Protection

(4) Whether there is any other board, either public or private, which would better serve the function of the board.

No other board would better serve the function of the Climate Resilience Committee. This board is comprised of experts with a wide range of knowledge, which is essential to understanding and addressing the many aspects of climate change, resilience, adaptation, and mitigation.

The Miami Forever Bond Citizens' Oversight Board has been formed to oversee the project management and progress reporting, complementing the standard oversight provided by the City Commission, to ensure transparency and accountability. Their review of projects, including infrastructure and parks, is similar to the work of CRC. However, they meet quarterly, and it appears to be in more of an oversight capacity than an advisory one.

(5) Whether the ordinance creating the board should be amended to better enable the board to serve the purpose for which it was created.

The primary item that would allow the CRC to serve its purpose better would be to have all available CRC member seats appointed. The CRC currently has two open seats. Having additional experts would allow for better results. Appointing someone who is a landscape architect, arborist, or civil engineer would be helpful to the CRC and to the results we can achieve. Additionally, we believe that appointing

someone such as an environmental health researcher or public health professional focusing on climate change would be beneficial.

(6) Whether the board's membership requirements should be modified.

The CRC has two open seats. One has been open for approximately 18 months after Reinaldo Borges, D4 Seat, stepped down. The second is the Mayor's appointment, which has been empty since Rodrigo Bilbao stepped down earlier this year after missing numerous meetings in the previous months due to new commitments. The CRC could benefit from appointments with people whose expertise includes landscape architects, arborists, or civil engineers. Not having a full Committee also affects the ability to meet a quorum.

(7) The cost, both direct and indirect, of maintaining the board.

A liaison from the Office of Resilience and Sustainability and an Assistant City Attorney has been assigned to provide administrative and legal support to the Committee.

Various studies have shown that the return on Investment of adaptation and resilience measures can be as high as 10X. The CRC's work, directly related to infrastructure and policy, should have a tangible economic impact.

Communication

We want to ensure that our efforts are productive. If you have any feedback or questions, please contact Miriam Flores, our board liaison with the Office of Resilience and Sustainability.

Sincerely,



Aaron DeMayo, AICP, Assoc. AIA, WEDG

City of Miami, Climate Resilience Committee, Chair 2024

c: Honorable Mayor and Members of the City Commission

George K. Wysong III, City Attorney

Miriam M. Santana, Agenda Coordinator

Nkosi Muse, Vice-Chair

Avra Jain, Committee Member

Wayne Pathman, Committee Member

Chief Adrian Plasencia, Committee Member

Sarahi Perez, Committee Member

Todd Hannon, City Clerk

Nicole Ewan, Assistant City Clerk

Sonia Brubaker, Chief Resilience Officer

Jihan Soliman, Senior Assistant City Attorney

Miriam Flores, Special Projects Coordinator