

Welcome.

Where are you from? We hear this question every day, all over South Florida. Some of us are from up north and came to thaw out. Some of us are from countries to the south and came to escape turmoil. Wherever we came from and for whatever reason, we now call South Florida home. We savor the unique culture our diversity has created as well as its opportunities. And together, we face Florida's multitude of natural disasters—hurricanes, tropical storms and tropical depressions, tornadoes, wildfires, and floods.

Our resilience strategy—that is, planning for and dealing with such adversity—begins with and ends with our people, with you. We are surrounded by family and friends. We are part of neighborhoods, community organizations, businesses, and churches. The intricate systems and processes that support us—transportation, water, the environment, food, and energy—also connect us. However, we are a large, complex, and diverse region and sometimes individuals and communities fall through the cracks. This document is intended to address this and other resilience challenges through intergovernmental and community collaboration. This resilience strategy will build on our existing networks and endeavor to safeguard our people, our homes, and our livelihoods, so that no person, neighborhood, or business is left behind.

Resilience, for us, means providing the opportunity for every person and every community to bounce back after large-scale flooding events, hurricanes, or economic hardships, and to not only survive, but thrive in the face of sea level rise, expensive housing, challenging traffic, and uncertain labor markets. By connecting, engaging, and empowering every voice in our community, we will stand strong and share our unique South Florida story. Join us in this journey.



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LETTER FROM THE MAYORS

Dear Residents, Businesses, and Partners in the 305:

As we launch this Resilient305 Strategy in the spring of 2019, cities around the world are also issuing their plans to tackle the many challenges to come in the decades ahead as ocean waters rise and average global temperatures increase.

Our shared community of Miami-Dade County, the City of Miami, and the City of Miami Beach has had both the honor and the responsibility of being the first regional partnership that was invited to join the 100 Resilient Cities initiative. First created in 2013 for the Rockefeller Foundation's centennial year, that important worldwide collaboration has enabled us to share our best practices, built across party lines and governing boundaries, with other local and international leaders.

In the following pages you will find 59 specific actions already in the works to ensure that our region of Greater Miami & the Beaches thrives for generations to come. Our Resilient305 Strategy also offers 28 case studies showcasing clearly defined steps that local groups are currently taking to ensure that we reach our goals.

We are grateful to the many exceptional leaders and partners who have helped us thus far in our journey. That includes former City of Miami Mayor Tomas Regalado and former Miami Beach Mayor Philip Levine, who opened the doors to our inclusion in the 100RC initiative in 2016; scores of collaborators who have since joined us in this Resilient305 mission at the numerous city, county, business, philanthropic and educational organizations that you will read about in this report; and countless others who have also played vital roles beyond the scope of this report.

The 305 Community has never known a challenge like this, and the task ahead is as daunting as the one we faced in the space race of the 1960s. Like those successful Moonshots, this will require new ingenuity, collaboration, and a sense of urgency. Together, we can and will rise to the occasion and create a more resilient future for our planet. Thank you for joining us in this transformative work.

Mayor Gelber, Mayor Gimenez, Mayor Suarez

MAYOR DAN GELBER
CITY OF MIAMI BEACH



MAYOR CARLOS A. GIMENEZ
MIAMI-DADE COUNTY



MAYOR FRANCIS SUAREZ
CITY OF MIAMI





LETTER FROM 100 RESILIENT CITIES

On behalf of 100 Resilient Cities (100RC), I want to congratulate Mayor Gelber, Mayor Gimenez, Mayor Suarez, and the entire Greater Miami & the Beaches (GM&B) team on the release of the Resilient305 Strategy, a major milestone in our partnership and the result of a tremendous collective effort.

The unique collaboration between Miami-Dade County, the City of Miami, and the City of Miami Beach (collectively, the GM&B region) stands out in the 100RC network as the only regional partnership between a county and two cities working together to create a shared resilience strategy. Located in a dynamic and growing coastal region, GM&B is acutely aware of the environmental, social, and economic challenges it faces—from severe storms and sea level rise to mobility and housing affordability—and the need to work together on solutions that promise a strong future for all. The 59 actions detailed in the Resilient305 Strategy will help the region thrive in the face of these challenges, while the partnerships that were formed and strengthened through this process will ensure that the GM&B region can address future shocks and stresses, both known and unknown.

Framed through the lens of Places, People, and Pathways, this strategy presents a roadmap for safeguarding the region's beautiful natural environment while connecting, enhancing, and adapting its vibrant communities; for bolstering the health, educational, and economic resources that enable individual residents to survive and thrive in both good times and bad; and for strengthening the connections, partnerships, and systems that facilitate collective action in tackling GM&B's shared resilience challenges.

This innovative strategy would not be possible without the leadership of GM&B's Chief Resilience Officers, Jane Gilbert, Jim Murley, and Susanne Torriente, and the numerous municipal staff and community partners who have contributed their time, energy, expertise, and willingness to experiment on a new approach. Through information gathered from over 150 public meetings involving over 1,100 participants, and an additional 2,400 survey responses, the strategy development process was truly a collaborative and participatory endeavor, yielding a clear set of intergovernmental and community priorities on which to build resilience.

While the release of the Resilient305 Strategy represents a remarkable achievement, the work is far from over. As Greater Miami & the Beaches continues its resilience journey through implementation of this strategy, we are confident this unique partnership will strengthen and grow. Through collective and individual action, Miami-Dade County, the City of Miami, and the City of Miami Beach – along with the many partner organizations who make up Greater Miami & the Beaches – will lead the region toward a vibrant future while serving as a global model for regional resilience.

MICHAEL BERKOWITZ
100 RESILIENT CITIES



Michael Berkowitz, President 100 Resilient Cities



MEET YOUR CHIEF RESILIENCE OFFICERS

Dear friends:

In the spring of 2016 this rather unique partnership, Greater Miami & the Beaches, became the first two cities and a county to join the IOORC network as one. We were chosen because we are urban inventors willing to partner. And in a sense, we were already pioneers among pioneers. We were chosen because we could give to the network and we would receive from the network. And we have.

As CRO's we have convened, listened and connected our beautiful and vulnerable PLACES, our diverse and already resilient PEOPLE and we found PATHWAYS to a stronger future. During this planning process we also put many ideas into action through our individual government investments and through the unique opportunities our partnership presented. Resilient305 is our collective resilience Strategy. It builds upon the challenges and strengths of the past to address the shocks and stresses of today and tomorrow. We hope that you will find your role in this plan and PIVOT with us into the future.

We want to thank and recognize so many important individuals without whom this plan could not have been written. To start, thank you to the thousands of individuals and organizations that have contributed ideas, context and feedback throughout this journey. We are fortunate to have hard working and talented staff; supportive and visionary bosses; 100 Resilient Cities current and former relationship managers Eric Wilson and Peter Jenkins providing network resources and, at times, therapy; The Miami Foundation for believing in the original intergovernmental experiment in collaboration; and finally our strategic partner AECOM - Claire Bonham-Carter for her insight and patience, especially Lauren Swan, our local AECOM task master extraordinaire and a good friend of the Greater Miami & the Beaches partnership.

Susy, Jim, and Jane

SUSANNE TORRIENTE
CITY OF MIAMI BEACH



JAMES MURLEY
MIAMI-DADE COUNTY



JANE GILBERT
CITY OF MIAMI





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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

What is Greater Miami and the Beaches?

Greater Miami & the Beaches (GM&B) is a unique partnership of Miami-Dade County, the City of Miami, and the City of Miami Beach. We came together to lead development of our community's resilience under the 100 Resilient Cities Network - Pioneered by the Rockefeller Foundation. Because the GM&B community is often referred to by our area code, "the 305" we thought it fitting that this document, GM&B's collaborative resilience building strategy, be titled Resilient305. To ensure Resilient305 has broad impact, GM&B will continue to expand to include the remaining 32 municipalities, other community organizations and anchor institutions in implementation.

What is the Resilient305 Strategy?

This Resilient305 Strategy is a living document created to address resilience challenges we prioritized through intergovernmental and community collaboration. Throughout the process - in public meetings, surveys and focus groups - GM&B engaged thousands of stakeholders to help shape the Strategy and make sure it reflected the input from a wide range of expertise, ages, ethnicities, cultures, income levels and geographic areas. This continued interaction will be key to the successful implementation of the Strategy.

As our community continues to grow and evolve, the Resilient305 Strategy will encourage us to work together to better prepare for an increasing occurrence of shocks, such as hurricanes, and infrastructure failures, as well as better mitigate stresses, such as sea level rise and sunny day flooding, crippling traffic and severe economic inequities. Even during the planning process, our resilience was tested by the Zika outbreak and Hurricane Irma. We are stronger because of our experiences and have incorporated many of the lessons learned into this document.

We recognize that even our passion and dedication doesn't prevent some of our most vulnerable from falling through the cracks. We hope that the Resilient305 Strategy will serve as a foundation in building a strong network focused on addressing equity gaps and elevating our vulnerable populations. We believe that together we have an opportunity to work differently and more effectively by promoting stronger leadership, closer collaboration, and better use of our resources.

What challenges will the Resilient305 Strategy tackle?

Over 50 actions have been identified, developed and organized for the Resilient305 Strategy into three overarching goal areas: Places, People, and Pathways. To better define the actions that would be included in the strategy, we focused on opportunities where we were best positioned to move the needle and separated them from those where we were better suited to complement the exceptional work that is already being done throughout various communities in the region.



GOALS

Places – Lugares – Kote

Many of us came to this part of Southeast Florida because we were drawn by the beautiful natural environment, balmy climate and the surrounding clear waters of this sub-tropical paradise. Those same features today simultaneously pose threats and offer opportunities. Through our “Places” actions, we aim to address location-based challenges and improve our climate resilience through research, design and planning; create, connect, and improve mobility and housing options; and enhance and safeguard our ecosystems.

People – Gente – Moun

Individual people are the heart and soul of resilient cities. If individuals do not have access to certain basic needs, their resilience is diminished and so too is the resilience of their neighborhoods and communities. Through our “People” actions, we aim to improve the lives of our citizens every day, whether sunny or stormy, by supporting job and wealth creation; addressing specific health needs for the most vulnerable among us; and preparing and empowering neighborhoods and networks to anticipate and respond to disruptions, both large and small.

Pathways – Caminos – Wout

“Pathways” is the strategic course we take to accomplish our goals by expanding our networks and sharing resources and tools. It is our “how to” guide. Through our “Pathways” actions, we aim to build the connections, collaborations, and committed leadership needed to change the status quo, enabling GM&B to become a global leader in resilience. We can achieve this by setting realistic and common goals, and committing to actions that bring together governments, businesses, community organizations and educational institutions.

PIVOT – Making it happen

GM&B recognizes that implementing each of the actions within the Resilient305 strategy will require dedicated effort from ourselves and our partners, guided by a team that we call PIVOT or “Progress, Innovation, and Vision for Our Tomorrow”. The initial PIVOT team will be comprised of leadership from Miami-Dade County, City of Miami, City of Miami Beach and The Miami Foundation, and will expand over time to include representatives from community partners. This team will look at resources, timeframes and priorities to develop a work plan and will oversee the implementation and progress of the Strategy.

Join us in the Resilient305 Movement!



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WHO IS GREATER MIAMI & THE BEACHES?

Greater Miami & the Beaches (GM&B) is a collaboration of Miami-Dade County, the City of Miami, and the City of Miami Beach, created to respond to the region's major challenges. As GM&B matures, the partners hope that GM&B will expand to include the remaining 32 GM&B municipalities within Miami-Dade County.

In 2016, after a very competitive process, GM&B was selected from among 400 applicants to join the 100 Resilient Cities network as the only inter-governmental partnership working to develop a shared resilience strategy.

WHAT IS 100 RESILIENT CITIES?

100 Resilient Cities – Pioneered by The Rockefeller Foundation (100RC) was launched in 2013 to help cities around the world become more resilient to the physical, social, and economic challenges that are a growing part of the 21st century.

100RC supports the adoption and incorporation of a view of resilience that addresses not just the shocks—hurricanes, economic crash, floods, etc.—but also the stresses that weaken the fabric of a city or a region on a day-to-day or cyclical basis. Resilience is what allows cities to adapt and transform in the face of these challenges, helping them to prepare for and respond in the face of both the expected and the unexpected.

In GM&B, stresses include aging infrastructure, an inadequate public transportation system, sea level rise, pronounced poverty, and health disparities. By addressing both the shocks and the stresses in a holistic manner, we become more prepared to respond to adverse events and better able to deliver basic functions in both good times and bad, to all populations.

WHAT IS RESILIENT305?

GM&B's Resilience Strategy—the Resilient305 Strategy—has been created as a living document to address prioritized resilience challenges through intergovernmental and community collaboration. Often referred to by our area code, the “305” has become a common nickname for local efforts. Not all our challenges will be addressed through actions in this resilience Strategy. Some of the issues are already being tackled by other plans or entities, such as decreasing congestion and improving transit through the Strategic Miami Area Rapid Transit (SMART) Plan, mental health through the new Miami Center for Mental Health and Recovery and the work of many social service providers and initiatives, and affordable housing through in-development Affordable Housing Master Plans. The resilience challenges tackled in Resilient305 were identified through a rigorous process that included extensive stakeholder engagement.





GM&B IN CONTEXT

As the southeast tip of the Florida peninsula and most southern land mass on the United States mainland, GM&B is a low-lying coastal community that totals 2,431 square miles, including 1,898 square miles of land. GM&B also comprises 533 square miles of water and is adjacent to three water bodies, including Biscayne Bay and the Atlantic Ocean on its eastern boundary, and the Florida Strait on the southern boundary.

The northern, central, and eastern portions of GM&B are heavily developed with numerous high-rise buildings along the eastern coastline and Miami River. South Florida's central business district is in downtown Miami and its primary tourist destination is Miami Beach.

According to the U.S. Census Bureau, Miami-Dade County is the most populated county within the State of Florida and the seventh most populated county in the United States. It has an average density of 1,464 persons per square mile with an approximate population of 2.7 million residents across 34 GM&B municipalities and unincorporated areas.

Of the population 25 years and older, 26 percent has a bachelor's degree or equivalent, slightly below the national average of 32 percent. The census identifies 16.7 percent of the population living in poverty, which is 4 percent higher than the national average. Some 68 percent of the resident population is Hispanic or Latino with a 53 percent foreign-born population. The multicultural composition of GM&B has continued to grow since 1961 with a 10.2 percent population increase between 2010 and 2017. This overall growth is expected to continue.

Every year, GM&B sees an influx of approximately 16 million visitors, predominantly for business purposes, or to visit the National Parks, sandy beaches, and turquoise waters. Cruise vacations and major events lure additional visitors. According to Miami-Dade County, GM&B's economy has continued to strengthen since the end of the Great Recession in 2010 with an increasing number of corporate headquarters for both the United States and Latin America located here. As the "Gateway to the Americas," GM&B hosts more than 700 multinational companies.

GEOGRAPHIC AREA*




2,431
square miles


2/3 protected land, local/national parks, waterways, urban development boundary

*United States Census


POPULATION*

2.7
million
people

16% 
over the age of 65

20.3% 
under the age of 18

*United States Census

36  **40**

average age expected to increase to 40 by 2030

*United States Census

DIVERSITY*



53%
foreign born

3 

primary
languages
spanish english creole

*United States Census

TOURISM*

22.5
million arrivals annually

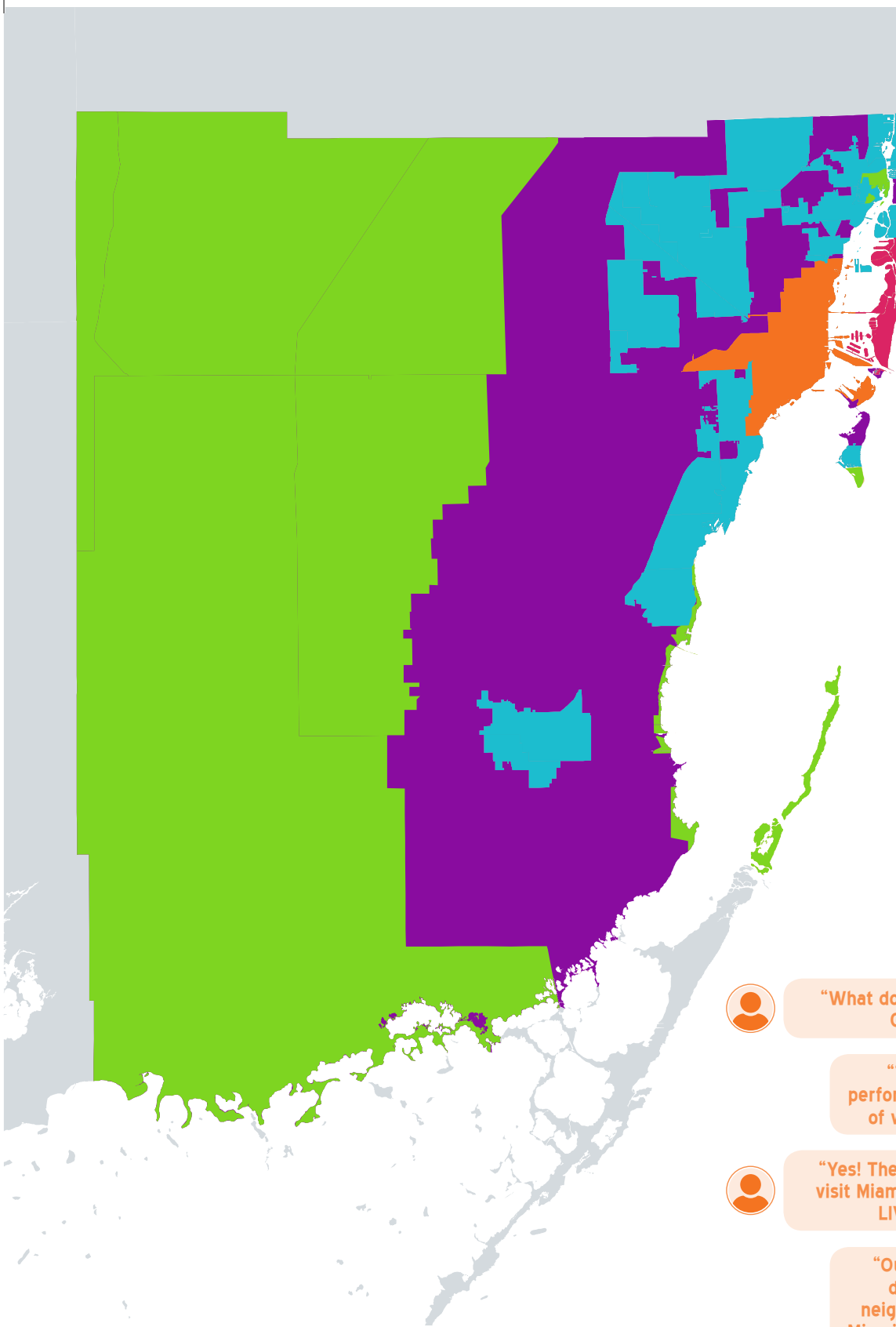


51%
international
40%
domestic

33% from Latin America **85%** visit for leisure

\$26 billion in expenditures in 2017

*Greater Miami Convention & Visitors Bureau



- Urbanized Miami-Dade County
- City of Miami
- City of Miami Beach
- Other Municipalities
- National or State Parks and Preserves in Miami-Dade



"What do you love about GM&B?"



"The growth in arts, performing arts, and creation of world class festivals!"



"Yes! The world wants to visit Miami Beach, and we LIVE here!"



"Our sense of unity and diversity among our neighborhoods is amazing. Miami is unlike any city in the nation."



"Beautiful city, dazzling water and architectures, great people and energy"

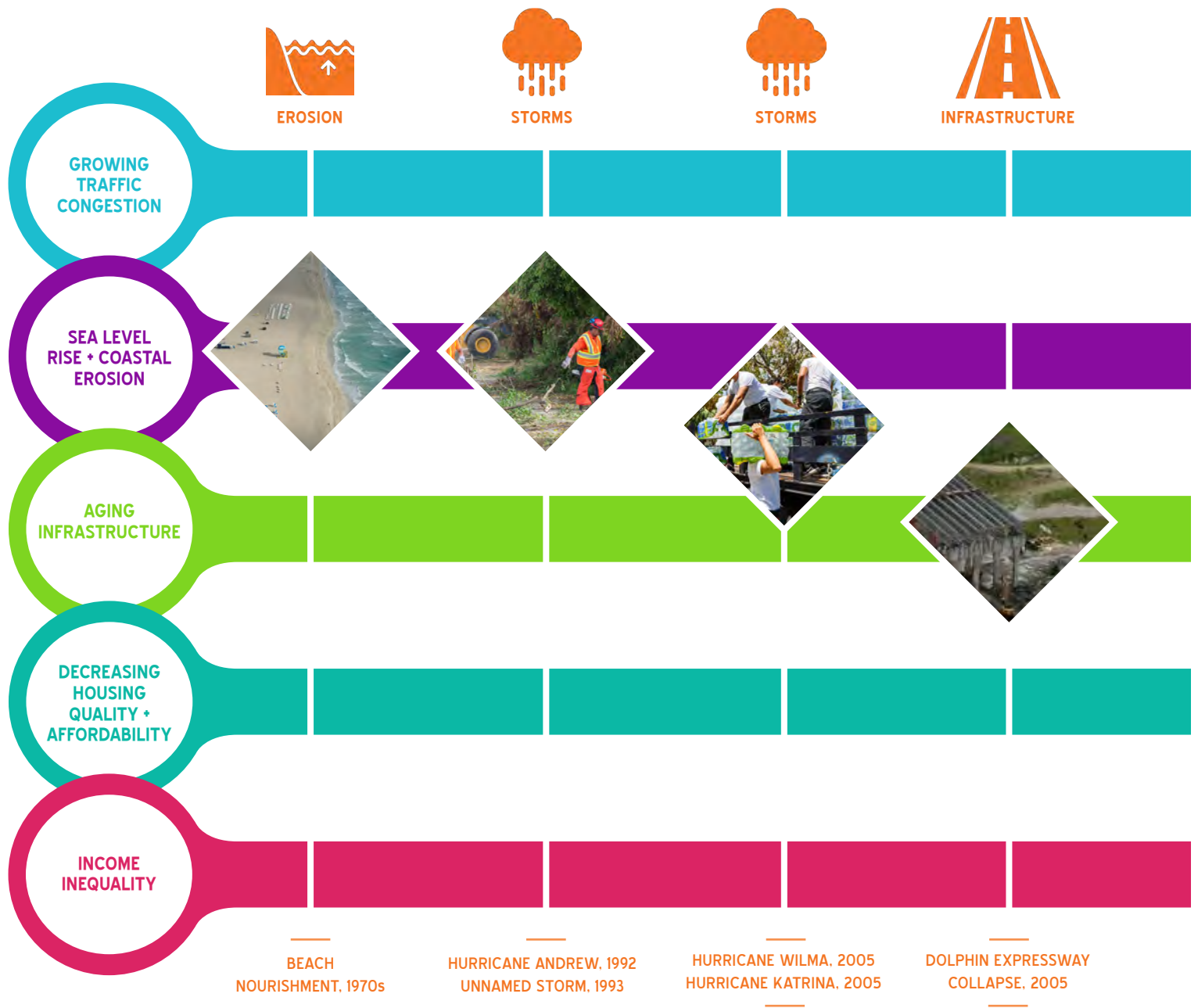


"I love the diversity of our people and our beautiful natural resources"



OUR CURRENT STRESSES AND PAST SHOCKS

As with many communities, GM&B's challenges have brought additional underlying issues to surface. Unforeseeable circumstances and their consequences create opportunities for GM&B to strengthen its communities and better prepare for the next occurrence. As we grow, we learn.





RECESSION



FLOODING



STORMS



PANDEMIC



GLOBAL FINANCIAL
CRISIS, 2008

KING TIDE FLOODING,
2011 + 2016

HURRICANE IRMA,
2017

ZIKA VIRUS,
2017



OUR PARTNERSHIP WITH THE SOUTHEAST FLORIDA REGIONAL CLIMATE COMPACT HAS TAUGHT US HOW TO BETTER COLLABORATE, PREDICT, AND PLAN.

In 2009, officials in South Florida lobbied for a federal climate policy in Washington, D.C., and quickly discovered they didn't have enough clout as a single entity for their requests to be prioritized. Officials needed to speak as a region to have more impact. Leaders from Palm Beach, Broward, Miami-Dade, and Monroe Counties formed a voluntary and collaborative partnership called the Southeast Florida Regional Climate Change Compact to work on issues such as rising temperatures, increased storm activity, and sea level rise that clearly cross municipal boundaries. The Compact's initial work was to develop and agree to consistent sea level rise projections, a regional vulnerability assessment, and the region's first greenhouse gas inventory. As the efforts of the Compact expanded, this innovative form of collaboration has become a model for regions around the nation and internationally. As a result, GM&B is leveraging the Compact and seeking to replicate the approach to engage GM&B municipalities in the GM&B region to address shared problems, advance shared priorities, and provide technical assistance. In 2018, Miami-Dade County hosted the Southeast Florida Regional Climate Leadership Summit with a record attendance of more than 700 participants.

Sunny day or nuisance flooding during high tides is now a regular occurrence in parts of GM&B due to the elevation and the geology of the region, disrupting daily life and causing economic impacts to residents and businesses alike. This is only going to get worse as sea levels continue to rise. GM&B is seen as an early actor in adapting to sea level rise, such as through raising roads in Miami Beach.

OUR HISTORY OF HURRICANES HAS TAUGHT US TO PREPARE BETTER, RESPOND QUICKER, AND RECOVER SMARTER.

In 1992, Hurricane Andrew hit Miami-Dade County with devastating impact, destroying homes and businesses. This Category 5 hurricane left Miami-Dade County with 175,000 people homeless and 1.4 million people without power in a very hot and humid climate. As a result, Miami-Dade County and its municipal partners developed a unified emergency response network and collaborated to develop one of the strongest building codes in the nation. After Hurricane Andrew, Miami-Dade County also founded the Homeless Trust, which today is one of the nation's most successful systems for ending homelessness. In 2018, Miami-Dade County saw an 8 percent reduction in homelessness.

In 2005, two hurricanes hit our region within a 2-month span, causing \$2.9 billion in damages. The Federal Emergency Management Agency (FEMA) issued disaster declarations and response teams were deployed from all over the country to support our emergency operations and disaster clean-up after Hurricane Katrina. Meanwhile, we were simultaneously preparing for our next storm, Hurricane Wilma, which produced a 6-foot storm surge in some areas of Miami-Dade County and caused over 98 percent of our residents to lose power for weeks. As a result, gas stations and larger grocery stores are now required to have back up power and fuel on site. In 2017, Hurricane Irma forced evacuations for the first time in over a decade. The debris from the hurricane's aftermath took months to clean-up. As a result of our experience in coping with the aftermath of hurricanes, GM&B municipalities in the GM&B region have begun working with local organizations to have clean-up crews in place prior to an anticipated severe weather event. In addition, local nonprofits have a renewed interest in building disaster awareness and preparedness at the community level.



12 of 35



GM&B municipalities have
signed the Mayor's Climate
Action Pledge



53,000

number of homes
located less than 3 feet
above high tide

4 inches

Amount sea level
has risen since
1992



3-7 inches

additional amount sea
level is expected to rise in
Southeast Florida
by 2030

\$21 billion

in assets are at risk

\$2.9 billion

in damages in 2005

31,246

Citizen Corps
Volunteers in



2017

during
Hurricane Irma

FEMA damage
estimates

\$467,371,000

in 2017 (Hurricane Irma)

Miami-Dade County
Operated



43

evacuation
centers;



20

medical management
facilities during
Hurricane Irma



OUR GROWING POPULATION HAS TAUGHT US THE IMPORTANCE OF BETTER MOBILITY OPTIONS.

Over the last 50 years, we have continued to experience development growth and population influx, leading to increasingly congested roadways. According to the Florida Department of Transportation (FDOT), in 2018, commuters averaged 60-minute daily commute times. In an effort to reduce travel costs and congestion, the Transportation Planning Organization (TPO) prioritized rapid transit and transit supportive projects for GM&B. Ongoing efforts include the SMART Plan's six major transit corridors, a drive to support Transit-Oriented Development as well as making grid-based route adjustments, and implementation of an Advanced Traffic Management System to increase reliability and reduce travel time for 80 percent of bus riders. In addition to TPO initiatives, several GM&B municipalities within the GM&B region, including the City of Miami and City of Miami Beach, operate trolley systems without fares to encourage ridership. In partnership with the South Florida Regional Planning Council (SFRPC) and South Florida Regional Transportation Authority (RTA), GM&B is aiming to reduce dependence on privately owned vehicles from its current 97 percent to 65 percent over the next 50 years.

OUR EXPERIENCE WITH HIGH RATES OF PROPERTY FORECLOSURES HAS TAUGHT US TO BETTER DIVERSIFY OUR ECONOMY AND REVENUE SOURCES.

Miami-Dade County was severely affected in 2007 by the mortgage crisis with more than 79,000 residential foreclosures, resulting in aggregate residential loss of value from \$258 billion in 2008 to \$157 billion in 2012. The largest source of revenue for GM&B municipalities is property taxes, which declined by 27 percent. This decline resulted in the elimination of discretionary reserves and a loss of funding for many community-based organizations. In 2012, the Miami-Dade Beacon Council, the economic development agency for Miami-Dade County, updated its long-term economic development strategy, One Community One Goal. This effort involved public, private and nonprofit organizations in developing and implementing a strategy to diversify our industry base and retain local talent. In 2018, the County welcomed more than \$402 million in new capital investments.



6th

M-DC is the 6th most congested county in the Nation



33 minute

average commute time

30 mins quicker than by car

62%

of transit riders use buses

7.7

Million

people ride



+



Public buses

Metrorail

every month

Transit Ridership

is down

5%

in 2019 (metrobus, metrorail, metromover)

2015 → 2018

peak ridership over 9.5 million

peak ridership over 7 million

"The County has implemented *Employ Miami-Dade* a program that reaches out to unemployed residents to train and prepare them for job placement in GM&B."

MAYOR GIMENEZ,
MIAMI-DADE COUNTY

16%

Live below the poverty level

4%

higher than the national average

\$46,338

Average household income



19% ↓

lower than the national average

267,544

people earn less than

\$25,000

59%



Live above the poverty level but struggle to meet basic needs



OUR DIVERSE, FOREIGN-BORN POPULATION HAS TAUGHT US TO EXPAND OUR COMMUNITY ACTION AND SOCIAL JUSTICE EFFORTS.

Approximately 500,000 Cubans, most of them business people and professionals, arrived in Miami during a 15-year period after the Cuban Revolution in 1959. In 1980, the Mariel boatlift allowed as many as 125,000 Cubans to emigrate to Florida in search of both political freedom and economic opportunities. Much of the population settled in the GM&B region, forever changing the cultural and demographic flavor of the area. Since then, both our federal and local governments have continued to enact Temporary Protected Status (TPS) to welcome persons from places who leave their countries due to extreme environmental, political, and/or economic impacts that compromise their livelihoods. An example includes Haitians impacted by the 3.2 magnitude earthquake of 2010, which severely crippled their country. Climate change may increase that flow.

As new residents assimilate, make the GM&B their home, and participate in our communities as tax paying residents, the needs of an influx of new people can also stress our social services networks. These networks have been assisted by community-based organizations that have historically been reliant on local, state, and federal government funding. However, in recent years funding sources have broadened to include more private partnerships. Community-based organizations have also begun collaborating to avoid duplication of services and to develop more creative, solution-based approaches for our diverse and culturally significant populations, which today generate an estimated \$1.43 billion in annual economic activity.

OUR OVERWHELMED CRIMINAL JUSTICE SYSTEM HAS TAUGHT US THE VALUE OF SOCIAL SERVICES AS PUBLIC HEALTH INTERVENTIONS.

The Miami-Dade County jail currently serves as the largest psychiatric institution in Florida and contains nearly as many beds serving inmates with mental illnesses as all state civil and forensic mental health facilities combined. GM&B's high percentage of people with serious mental illnesses combined with its relatively low level of funding for treatment programs has led to arrest and incarceration of mentally ill individuals for criminal offenses that are directly related to psychiatric symptoms or life circumstances (e.g. homelessness, addiction, poverty). On any given day, the jail houses approximately 2,400 individuals receiving psychotherapeutic medications, and costs taxpayers roughly \$180 million annually or \$500,000 per day.

The response to this challenge has been multisectoral and multijurisdictional. 35 different police departments have Crisis Intervention Teams (CIT) which are comprised of police officers trained to recognize and respond to individuals experiencing psychiatric emergencies, and to assist them in accessing services, in lieu of arrest, when appropriate. If individuals are arrested, there are post-booking mental health jail diversion programs that seek to divert nonviolent offenders with serious mental illnesses away from the criminal justice system into comprehensive community-based treatment and support services. A new mental health diversion facility is currently being built to serve and house these mentally ill individuals who need psychiatric services but are currently homeless and/or being handled by the criminal justice system. There are also interventions beyond the criminal justice system like the Lazarus Project, launched in 2014, which brings direct outreach to chronically homeless individuals living on the streets, with the goal of eventually moving individuals into permanent housing. Social services and programming are also being used as interventions for other public health threats, like youth violence via the Together for Children initiative.



500,000

37,000

Cubans in 15 years

new Cuban residents in 2016

VENEZUELAN, HONDURAN, HAITIAN, RUSSIAN
RESIDENT POPULATION IS ON THE RISE



61 million

in annual local revenue

"The vibrancy of our extraordinary cultural life is why we are considered to be an international hub for a creative workforce and the place to be for economic innovation and cultural diversity."

ADOLFO HENRIQUES,
FORMER CHAIRMAN OF MIAMI-DADE
CULTURAL AFFAIRS COUNCIL

67%

Hispanic



1.6 million

Spanish speakers

16 million

annual attendees
@ cultural events

27%

attendees from
GM&B

Approximately

15,000

people in need of mental health treatment are arrested each year in Miami-Dade County, primarily for misdemeanors and low-level felonies

Florida is

9th



in the nation for prevalence
of mental illness

There are roughly

5,950



CIT trained
officers who
respond to
16,000 crisis
calls per year

57%



prisoners receiving
psychotherapeutic
medication which
costs taxpayers

\$180

Million

Roughly

9.1%

of Miami-Dade
residents experience
serious mental illness



PARTNERSHIP ACHIEVEMENTS

When Miami-Dade County, the City of Miami, and the City of Miami Beach came together to form the Resilient GM&B partnership, Miami-Dade County and Miami Beach already had established Chief Resilience Officer positions and resilience priorities. With the support of 10ORC, the City of Miami Beach created the CRO position and an Office of Resilience, and the three entities initiated a joint strategic planning process for long-term resilience. Through the Resilient305 Strategy development process this unique partnership has allowed for GM&B partners to collaborate and leverage their existing resources resulting in valuable achievements. Some examples include:

METROLAB AGREEMENT: Together GM&B partners and three local universities signed a City + University Collaborative called the Metrolab Network. This collaborative is a mutually beneficial relationship that drives urban innovation partnerships between these universities and GM&B municipalities to research, develop, and deploy technology-enabled solutions that can help address the community's most pressing challenges.

BUSINESS CASE ANALYSIS PARTNER ACCESS: The City of Miami Beach's Business Case Analysis contract allows GM&B partners to develop task orders and hire selected consultants to perform work outlined in the Business Case Analysis contract without having to perform traditional procurement procedures allowing for expedited workflow.

URBAN LAND INSTITUTE STORMWATER RECOMMENDATIONS: 10ORC funded an Urban Land Institute (ULI) panel that resulted in a series of recommendations specific for the City of Miami Beach's stormwater program which are applicable to many of GM&B's coastal communities and in many cases, are in the early stages of application amongst GM&B partners.

RECOVERY RESOURCES: To evaluate post disaster response and recovery, GM&B developed three resources for use by additional governments and organizations:

- ◆ The Rapid Response Essentials toolkit strengthens intergovernmental coordination for post-disaster operations by providing guidance that supports improved analysis and evaluation of capabilities to recover and bounce forward after a disaster. The toolkit aligns with Miami-Dade County's Post Disaster Redevelopment Plan (PDRP) and Comprehensive Emergency Management Plan.

- ◆ The 5-Step Guide to Innovative Disaster Recovery Finance incorporates lessons learned from past storms with traditional insurance and FEMA funding into a financial preparedness resource for GM&B municipalities.
- ◆ The Resilient Land Use Essentials Guide is a resource for GM&B municipalities and land owners that facilitates planning for recovery from disasters caused by climate-induced flooding and sea level rise.

ZIKA ERADICATION: The Zika virus was successfully eradicated in 2017 when GM&B worked together with the state, federal, and community partners to proactively address the Zika virus.

AIDS DRUG ASSISTANCE PROGRAM: Due to an introduction by GM&B, the Aids Drug Assistance Program partnered with the Infectious Disease Elimination Act (IDEA) Exchange to improve access to medication for mutual, low income patients.

ADVANCING CITIES: Leveraging GM&B's 10ORC work, JPMorgan Chase awarded a \$3 million dollar AdvancingCities Grant to The Miami Foundation in partnership with the City of Miami to address workforce development and small business expansion needs and opportunities.

A STORY MAP TO UNDERSTAND MOBILITY: A Story Map of current transit, transportation and land use types was developed as a communication tool to understand mobility and development prioritization. As a result of the story map, an ArcGIS Hub was purchased by Miami-Dade County during strategy development to enhance intergovernmental data sharing and transparency.

CITY WATER RESILIENCE APPROACH: A "one water" approach to tackling water specific issues was developed and adopted as a more resilient and holistic approach to managing water resources. This process allowed Miami-Dade County's Water and Sewer Department to work more closely with Miami-Dade County's Office of Resilience, GM&B municipalities, and regional organizations.

ACCELERATOR PROJECTS: Four projects were put through an intensive three-day development ('accelerator') process led by Colombia University and 10ORC. The process was so successful that GM&B is committing to undertake future accelerator projects.



100RC Network in Action

When cities join the 100RC network they are given access to many resources, including its Cities Network. The 100RC network has allowed GM&B to connect with Chief Resilience Officers (CROs) in other 100RC cities throughout the world who share similar challenges, offering both inspiration and support. This snapshot of collaboration and shared priorities from across the 100RC Network shows some of the many collaborative achievements throughout this process.

SAN FRANCISCO, CA

In 2016, San Francisco developed a sea level rise action plan which defined a set of goals and principles for sea level rise planning and established a framework for further assessment, adaptation planning, and implementation of identified initiatives.

NORFOLK, VA

GM&B turned to the CRO of Norfolk, VA for her experience working with the U.S. Army Corps of Engineers on a Coastal Storm Risk Management Feasibility Study, which helped inform a similar USACE partnership now underway in GM&B to identify coastal flood protections along Biscayne Bay.

GLASGOW, UNITED KINGDOM

In its resilience strategy, Glasgow identified an opportunity to work with businesses – ranging in size from start-ups to mature companies – to ensure that they have the necessary resources to be resilient and adaptable to changing economic conditions.

LOS ANGELES, CA

To support the implementation of its resilience strategy, Los Angeles is appointing and training Departmental Chief Resilience Officers across the municipal organization who are tasked with integrating resilience priorities across City operations, programs, and policies.

ATLANTA, GA

Through the Atlanta Beltline Equitable Development Plan, Atlanta is working to advance housing affordability, sustainable design, community health, and equitable access to greenspace through the development of the Atlanta Beltline, a 22-mile transit loop and trail network.

HONOLULU

SAN FRANCISCO

LOS ANGELES

BOULDER

MINNEAPOLIS

PITTSBURGH

DALLAS

ATLANTA

NORFOLK

NEW ORLEANS

MEXICO CITY

GREATER MIAMI & THE BEACHES

SANTIAGO DE LOS CABALLEROS

MEDELLÍN

CALI

QUITO

RIO DE JANEIRO

SANTIAGO

BUENOS AIRES

CALI, COLOMBIA

In Cali, the Territories of Inclusion and Opportunities program (TIO, which also means “uncle” in Spanish) is bringing together the entities involved in violence prevention to design and pilot effective government initiatives to reduce violence.

MEDELLÍN, COLOMBIA

Medellín is taking a multi-pronged approach to mitigating natural hazard risks in its neighborhoods, including training local risk management committees on prevention and response, training builders in seismic retrofits, and installing early-warning communication networks.

QUITO, ECUADOR

Through neighborhood risk management committees, Quito is developing networks of young volunteers who are ready to respond to a variety of natural hazards to ensure the most vulnerable residents in their communities are kept safe.

RIO DE JANEIRO, BRAZIL

During the summer of 2016, GM&B and Rio de Janeiro shared best practices for tackling the public health threat of the Zika virus. Having both experienced the shock of Zika, they exchanged approaches for limiting its spread, such as neighborhood inspections for mosquito breeding grounds.

**BOULDER****Realizing the Resilience Dividend Workshop**

GM&B CROs and Budget Directors participated in the October 2017 “Realizing the Resilience Dividend” workshop where they exchanged best practices on advancing resilience through public finance, municipal budgeting, and capital improvement planning with other US cities

CITIES: BOULDER, DALLAS, HONOLULU, MINNEAPOLIS, NEW ORLEANS, NORFOLK, PITTSBURGH, SAN FRANCISCO

**LONDON/BELLAGIO****City Water Resilience Approach**

Through the 100RC Network, GM&B joined Amman, Jordan; Cape Town, South Africa; Hull, United Kingdom; and Mexico City, Mexico in developing and piloting a City Water Resilience Approach to enhance water security and protect against water-related shocks and stresses through a holistic evaluation of water resources and management practices

CITIES: AMMAN, CAPE TOWN, HULL, MEXICO CITY

**SANTIAGO DE CHILE****Building Resilience at the Metropolitan Scale**

In December 2017, the GM&B team joined other 100RC member cities in Santiago de Chile to share experiences, tools and, tactics that build resilience at a metropolitan scale through regional, inter-governmental partnerships and collaboration

CITIES: BARCELONA, BUENOS AIRES, GREATER MANCHESTER, JAKARTA, PARIS, SANTIAGO DE CHILE, SANTIAGO DE LOS CABALLEROS, SYDNEY

GLASGOW
HULL
GREATER MANCHESTER
LONDON
PARIS
BELLAGIO
BARCELONA

AMMAN

JAKARTA

CAPETOWN

SYDNEY
MELBOURNE

MELBOURNE, AUSTRALIA

Metropolitan Melbourne is developing a resilience training program for local government employees across the region to equip them with the knowledge and resources to incorporate resilience into their day-to-day responsibilities, which include implementing policies intended to address shocks and stresses, often with limited resources.



PHASE I



▲ Agenda Setting Workshop



FALL 2016

We Listened + We Learned

- ◆ 70% of 34 GM&B municipalities and the County Interviewed
- ◆ 200 Participant Agenda Setting Workshop
- ◆ 2,031 Resilience Priority Survey Responses
- ◆ 118 Participant Subject Specific Meeting
- ◆ 491 Participant Interactive Focus Group
- ◆ 403 Focus Area Survey Responses
- ◆ 5 100RC Network Collaboration Events

PHASE II



▲ Preliminary Resilience Assessment



SUMMER 2017—SUMMER 2018

We Discovered

- ◆ 175 Participant Phase II Kick-Off
- ◆ 6 Discovery (Focus) Areas
- ◆ 34 Discovery Area Meetings
- ◆ 245 Participant Subject Matter Input
- ◆ 9 GM&B Collaboration Events



PHASE III



GM&B
Resilient305
Strategy



RESILIENT
305

SPRING 2019 We Implement

- ◆ Work with our municipal partners, community organizations, universities and residents to implement the Resilient305 Strategy and build on the Resilient305 movement.

RESILIENT305 PROCESS

GM&B's Resilient305 Strategy development process has been an extensive multi-year effort. GM&B has worked closely with 100RC through two phases, with a third— implementation—still to come. Through the first phase GM&B reviewed and analyzed its resilience challenges alongside multiple partners, culminating in a preliminary resilience assessment. The second phase gave GM&B the opportunity to review priority resilience areas in more detail in order to establish realistic actions.

Throughout this process GM&B has engaged thousands of stakeholders that reflect a wide range of expertise, ages, ethnicities, cultures, income levels and geographic areas to help shape the Resilient305 Strategy. This inclusive process allowed GM&B to work with residents and subject matter experts through community meetings, surveys and focus groups. As a result of this dialogue, GM&B has developed a communications plan and engagement toolkit for the implementation phase of the Resilient305 Strategy.

As phase three begins, GM&B recognizes that implementing each of the actions within the Resilient305 Strategy will require a dedicated effort from a team that we call Progress, Innovation, and Vision for Our Tomorrow (PIVOT). The PIVOT team will oversee the prioritizing, implementation, and monitoring of progress on the Strategy. More information on PIVOT and how we are putting the plans to work can be found in the section called "Implementation."



RESILIENT305 VISION

GM&B has organized the Resilient305 Strategy into three goal areas.

PLACES aims to address place-based challenges by:

- ◆ Enhancing climate resilience through design and planning;
- ◆ Creating, connecting, and improving mobility and housing options; and
- ◆ Safeguarding ecosystems.

PEOPLE aims to improve the lives of our residents everyday by:

- ◆ Supporting job and wealth creation;
- ◆ Addressing specific health needs for the most vulnerable; and
- ◆ Preparing and empowering neighborhoods to anticipate and respond to disruptions.

PATHWAYS aims to enhance collaboration and committed leadership by:

- ◆ Setting common and equitable goals;
- ◆ Developing shared resources; and
- ◆ Working with our neighbors to succeed across boundaries.

Each of the three goals of People, Places, and Pathways, has objectives that help organize actions within the goals. Many of the actions have case studies and spotlights that accompany a specific action to spotlight project examples and action leaders separate of the GM&B partnership.

The actions build on existing efforts or address program and policy gaps to further resilience in the GM&B region.



PLACES

OBJECTIVES

- ◆ Enhance Natural Systems
- ◆ Safeguard Urban Systems
- ◆ Create Mobility Options
- ◆ Increase Energy Efficiencies
- ◆ Enhance Housing Options

19 actions | 5 spotlights
11 case studies



PEOPLE

OBJECTIVES

- ◆ Cultivate Financial Stability
- ◆ Advance Public Health Priorities
- ◆ Strengthen Community Response
- ◆ Communicate the Concept of Resilience

22 actions | **13**  spotlights
8 case studies



PATHWAYS

OBJECTIVES

- ◆ Pre-plan for Post Recovery
- ◆ Cultivate Resilience Expertise
- ◆ Leverage our Experience
- ◆ Develop Shared Resources
- ◆ Leverage our Dollars

18 actions | **6**  spotlights
9 case studies



HOW TO READ THE ACTIONS

OBJECTIVE

Steps that GM&B plans to take to tackle each goal.

ACTION

Specific policies or programs that GM&B and its partners will deploy to help achieve resilience goals.

PERFORMANCE METRICS

How we will track performance over time.

COLLABORATORS

Key public, private, nonprofit, and civic collaborators that will implement Resilient305 actions in the years ahead. Partnership is not exclusive and is meant to be a starting point.

FUNDING

Identifies whether the action is funded, partially funded or unfunded, identifying sources where possible.



OBJECTIVE: CREATE MOBILITY OPTIONS

ACTION: IT'S ELECTRIC

HOW THIS WILL HELP US

- ◆ Improves air quality
- ◆ Reduces greenhouse gas emissions
- ◆ Streamlines government processes
- ◆ Improves financial planning

PERFORMANCE METRICS

- ◆ Number of GM&B municipalities requiring EV infrastructure in building code
- ◆ Number of EVs in municipal fleets
- ◆ Number of EV chargers countywide
- ◆ Tons of greenhouse gas emissions from private cars
- ◆ Number of registered EVs

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Miami-Dade County
- ◆ GM&B municipalities

FUNDING

Partially funded by Electrify America.



DESCRIPTION

Since 2013, electric vehicle (EV) ownership in Miami-Dade County has increased 450 percent. After California, Florida leads the country in number of registered vehicles; by 2030, Florida is expected to reach 30 percent market penetration. To prepare for and catalyze the growth of the EV market, GM&B will enact policies that support development of EV infrastructure (like chargers), seek opportunities to introduce EVs into municipal fleets, and engage in knowledge sharing to promote best practices and a unified network.

One perceived barrier to greater deployment and use of EVs is an inadequate number of publicly available chargers. GM&B partners will pass legislation to require new parking structures to set the foundation for EV infrastructure growth. Additionally, GM&B municipalities with existing EV policies and fleet experiences will share best practices with other GM&B municipalities to address concerns and issues. Collective commitment and investment is needed to accelerate an EV transition that will not only significantly reduce vehicle emissions but also lower governments and residents' operations costs.



CASE STUDY ELECTRIFYING THE FLEET

In 2015, the City of Coral Gables began drafting its 10-year Sustainability Management Plan to provide a framework on creating a more sustainable and resilient community. One of the goals established in the plan was to reduce gasoline and diesel fuel use 20 percent below 2013 levels by 2025. One way the City has focused on achieving this goal is integrating EVs into its City fleet. The City established an FY 2021 goal of 78 EVs, which represents 60 percent of their administrative fleet. The City purchases these EVs via a statewide procurement contract and has supported the fleet by installing dedicated EV support equipment at its maintenance facility, City Hall parking lot, and municipal parking garages. In 2015, the City began purchasing EVs and currently has a total of 43 EVs in its fleet, making it one of the largest government EV fleets in Florida. The City has been able to fund this through its annual vehicle replacement budget. The installation of 22 charging stations, with a goal of expanding to 43 by 2021, has enabled and inspired the community to start transitioning away from traditional gasoline powered vehicles.



Photo Credit: City of Coral Gables

has increased by
if registered electric
penetration. To
enact policies
opportunities to
ing to create best

inadequate network
to require EV charger
or EV infrastructure
and fleets will share
es to reduce potential
eded to facilitate
isions but also save



A strength of the Greater Miami & the Beaches (GM&B) region is the diversity of our urban areas set next to uniquely beautiful and ecologically valuable natural areas, from the Everglades to Biscayne Bay to the ocean reefs beyond. Although our urban centers are booming, many of our residents' struggle: the high cost of housing takes its toll as does transportation. Our burgeoning population, with its associated car ownership, can make journeys to work long and tiresome. Today those same features are vulnerable to tropical hurricanes and rising seas. While our natural environment is one of our greatest assets, it is at risk and changing, requiring our collective efforts to protect and adapt along with it.

Through our "Places" actions, we aim to address these place-based challenges, enhancing our climate resilience through design and planning for the future; creating, connecting, and improving mobility and housing options; and safeguarding our ecosystems.

WHO IS WHO?

THE PARTNERSHIP

Greater Miami & the Beaches (GM&B)

THE SUPPORTING ORGANIZATION

100 Resilient Cities (100RC)

THE STRATEGY

Resilient305

THE IMPLEMENTING TEAM

PIVOT (Progress Innovation Vision for Our Tomorrow)



GOAL 1: PLACES

OBJECTIVO 1:
LUGARES

OBJEKTIF 1:
PLAS



Objective 1

Enhance Natural Systems



- Action 1
- Action 2
- Action 3
- Action 4
- Action 5

Preserve and Restore Biscayne Bay
Build Reef Biodiversity and Defenses
Bolster Our Beaches
Expand Nature-Based Infrastructure
Integrate Resilience into Parks and Open Spaces

Objective 2

Safeguard Urban Systems



- Action 6
- Action 7
- Action 8
- Action 9
- Action 10
- Action 11

Reduce “Back Bay” Flooding
Implement Sea Level Rise Strategy
Develop Sea Level Rise Checklist for Capital Projects
Create Development Review Checklist
Strengthen Resilience Planning
Maximize Opportunity Zones

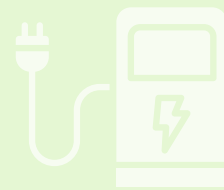


Objective 3

Create Mobility Options

Develop Mobility Hubs in the 305
Design a Better Bus Network
Drive into the Future
It's Electric

Action 12
Action 13
Action 14
Action 15



Objective 4

Increase Energy Efficiencies

Expand Renewable Energy
Building Efficiency 305

Action 16
Action 17



Objective 5

Enhance Housing Options

Stay and Live in the 305
Redeveloping Resilient Public Housing

Action 18
Action 19





GOAL 1: PLACES



OBJECTIVE 1: ENHANCE NATURAL SYSTEMS

ACTION 1: PRESERVE AND RESTORE BISCAYNE BAY

HOW THIS WILL HELP US

- ◆ Improves water quality
- ◆ Restores coastal ecology
- ◆ Attracts state and federal funding
- ◆ Creates natural habitat

PERFORMANCE METRICS

- ◆ Number of Biscayne Bay Restoration Action Plan recommendations implemented
- ◆ Number of agencies with active representation in the peer-to-peer network
- ◆ Water quality (as measured by Miami Dade County)

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B municipalities
- ◆ Local universities
- ◆ Biscayne Bay interest groups (non-governmental organizations, clubs, and business and professional organizations)

FUNDING

Funded within resources existing in participating entities



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Miami-Dade County is internationally recognized for its waters, being home to Biscayne Bay, a National Marine Sanctuary, numerous State of Florida aquatic preserves, and several water conservation areas. The Biscayne Bay wetlands project is a key coastal feature in the Comprehensive Everglades Restoration Plan (CERP). To establish a framework for coordinating and collaborating among Biscayne Bay stakeholders—county, municipal and state agencies; academia; interest groups; and the general public—two parallel partnerships will be formed: (1) the Biscayne Bay Task Force, and (2) a peer-to-peer network of natural resources managers.

The Biscayne Bay Task Force will be composed of interdisciplinary and interagency members residing in GM&B, who are nominated and chosen by the Miami-Dade Board of County Commissioners. Its overall purpose will be to advise the Board of County Commissioners on issues related to the long-term preservation and restoration of Biscayne Bay water quality and habitat. The Task Force will prepare a Biscayne Bay Restoration Action Plan for the Commissioners that will identify problem areas, prioritize projects for Biscayne Bay, and provide recommendations for state and federal legislation, activities, and appropriations.

The peer-to-peer network of natural resource managers will be created from local GM&B municipalities, Miami-Dade County, and other governmental agencies across GM&B responsible for environmental initiatives throughout the Biscayne Bay watershed. The purpose of the network is to strengthen relationships and improve communication among natural resource practitioners, build capacity across the region, and coordinate efforts related to Biscayne Bay management that accelerate action and maximize impact. The network will share best practices and align multi-jurisdictional projects related to Biscayne Bay restoration at quarterly round table meetings. Additionally, the network will create a database that includes governmental natural resource managers from the area.



ACTION 2: BUILD REEF BIODIVERSITY AND DEFENSES

OBJECTIVE 1: ENHANCE NATURAL SYSTEMS



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

The only barrier reef in the continental United States, the Florida Reef tract is the third-longest coral barrier reef in the world, stretching 200 miles along the Atlantic Coast of South Florida. Its coral reefs are biodiversity hotspots. While these reefs cover only a small fraction of the ocean floor, they provide habitat for 25 percent of the world's fish species. These coral reefs adjacent to GM&B warrant further protection and enhanced restoration as part of Resilient305. Miami-Dade County, which is responsible for managing its Artificial Reef Program, will collaborate with the Southeast Florida Coral Reef Initiative, local academic institutions, and coastal GM&B municipalities on continued implementation and in identifying opportunities for expanding this important program. Using leading science and proven intervention strategies, the Artificial Reef Program will seek to further enhance nearshore recreational benefits, provide additional habitat structure, and look for opportunities to further reduce storm-related coastal impacts. In conjunction with its ongoing beach nourishment program, Miami-Dade County will perform coastal modeling to determine the feasibility of using structures, such as submerged artificial reef material, to promote greater coastal habitat and shoreline resilience.

Reefs are a \$6.3 billion Florida economic driver supporting more than 70,000 local jobs. The health of the Florida Reef tract, which serves as a coastal buffer from wave energy and storm surge (Florida Department of Environmental Protection), has been declining sharply. In some areas, the state's coral species have declined by more than 90 percent and some species have lost more than 97 percent of their populations (Mote Marine Lab). Currently, coral reef disease across the southeast coastal counties has impacted 20 of the 45 species found in Miami-Dade County.

HOW THIS WILL HELP US

- ◆ Protects against storm-related impacts
- ◆ Creates natural habitat
- ◆ Stimulates economic growth
- ◆ Restores coastal ecology
- ◆ Provides recreational opportunities

PERFORMANCE METRICS

- ◆ Updated reef master plan
- ◆ Artificial reef structure area (square feet or number)
- ◆ Reef health (e.g., fish diversity, coral diversity)

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ U.S. Army Corps of Engineers
- ◆ National Oceanic and Atmospheric Administration
- ◆ Florida Department of Environmental Protection
- ◆ Florida Fish and Wildlife Conservation Commission
- ◆ Coastal GM&B municipalities

FUNDING

Partially funded with existing program resources of collaborators



GOAL 1: PLACES



OBJECTIVE 1: ENHANCE NATURAL SYSTEMS

ACTION 3: BOLSTER OUR BEACHES

HOW THIS WILL HELP US

- ◆ Protects against storm-related impacts
- ◆ Creates natural habitat
- ◆ Improves recreational opportunities
- ◆ Stimulates economic growth
- ◆ Restores coastal ecology

PERFORMANCE METRICS

- ◆ Completed comprehensive beach management plan
- ◆ Number of regulatory permits for nourishment
- ◆ Dollar value of funding sources identified
- ◆ Platform for intergovernmental coordination created

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ U.S. Army Corps of Engineers
- ◆ Florida Department of Environmental Protection
- ◆ Municipal coastal partners: City of Miami Beach, Surfside, Bal Harbour, Sunny Isles, Key Biscayne
- ◆ Other municipal, state, and federal agency partners; private-sector partners

FUNDING

Partially funded by U.S. Army Corps of Engineers



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Beach nourishment provides essential economic, environmental, and recreational benefits to coastal communities. As the local sponsor for state and federal beach nourishment projects, Miami-Dade County manages its beaches, which are a vital buffer between coastal infrastructure and the impacts of wave action and surge during storm events. Miami-Dade County's beaches are the very foundation of its tourism economy. In 2016, visitors to the GM&B region identified the beaches as the area's best feature, and 77.5 percent of those tourists went to the beach (Greater Miami Convention & Visitor's Bureau, 2017). For every \$1 that the federal government spends on beach nourishment, it receives \$810 in tax revenue from tourists. Miami-Dade County will partner with U.S. Army Corps of Engineers and collaborate with coastal cities to develop a comprehensive beach management plan that supports coastal sustainability and protection.

The current 50-year federal authorizations for the Dade County Beach Erosion & Hurricane Protection Project (the Project) are set to expire in 2025 and 2038, respectively. Over the course of the next 2 years, Miami-Dade County, the City of Miami Beach, and other coastal barrier island GM&B municipalities will work with U.S. Army Corps of Engineers on a \$3 million feasibility study to prepare for reauthorization of the Project and the next 50 years of beach management. The feasibility study and future beach master plans by Miami-Dade County will provide further analysis and insight on domestic and non-domestic sand sources, and structural and non-structural solutions. The study will focus on identifying proactive strategies that help stabilize coastal beaches and minimize erosion to maximize investment. Miami-Dade County will seek to identify a dedicated funding source, a top priority for coastal municipal mayors, and blanket permits for GM&B municipalities to be more nimble as erosional hotspots arise.

U.S. Army Corps of Engineers has allocated \$158 million for beach nourishment for Project construction over the next 5 years, but Miami-Dade County will need to collaborate with coastal GM&B municipalities on identifying funding to continue implementing the beach management program over the next 50 years.





GOAL 1: PLACES



OBJECTIVE 1: ENHANCE NATURAL SYSTEMS

ACTION 4: EXPAND NATURE-BASED INFRASTRUCTURE

HOW THIS WILL HELP US

- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Restores coastal ecology
- ◆ Restores natural habitat
- ◆ Increases understanding of resilience

PERFORMANCE METRICS

- ◆ Number of prioritized projects completed
- ◆ Ecosystem services benefits identified and tracked per project

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Coastal GM&B municipalities
- ◆ The Nature Conservancy
- ◆ Florida Department of Transportation

FUNDING

Partially funded by managing organizations

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B partners will collaborate with local and regional partners to implement four green, blue, and hybrid infrastructure projects identified and prioritized during the Resilient305 Strategy development phase for implementation. These projects were chosen because of the different habitat types they represent, and for their various resilience benefits, pioneering designs, regional significance, educational opportunity, and potential replicability. GM&B, with The Nature Conservancy of Florida, has prioritized these four projects to highlight primary environmental typologies in the region: 1) The South Dade Wetlands Project, supporting Everglades restoration; 2) the Indian Creek Living Shoreline Project, representing urban area wetlands habitat; 3) the Arch Creek Drainage Basin Project, representing urban area uplands habitat; and 4) the Julia Tuttle Causeway Shoreline Enhancement Project, representing Biscayne Bay habitat. Demonstrating the resilience benefits and lessons learned from these four projects will be important outcomes that will be used to inform similar future projects within GM&B and in other coastal communities.



SPOTLIGHT

COLLABORATION WITH THE NATURE CONSERVANCY

The Nature Conservancy (TNC) is an important local and regional partner, providing expertise on nature-based resilience efforts, and attracting funding and additional resources to the southeast Florida region. The Florida Chapter of TNC has been engaged with the Southeast Florida Regional Climate Change Compact (Compact) since 2010, providing critical technical expertise and support for its nature-based policies and efforts, including leadership of the Compact's Regional Shoreline Resilience Workgroup. The Workgroup's products describe multiple community-engaged projects that are in development along urbanized waterways and coastal shorelines. These products provided important baseline information for GM&B's Resilient305 Strategy development phase. This inclusive engagement process will further activate the community to better comprehend future flooding risks associated with being a coastal community, and to advocate for the advancement of green infrastructure across South Florida. It is anticipated that the TNC nature-based coastal resilience project funded by the Chubb Charitable Foundation, which started in late 2018, will also help inform the design and implementation of some of the four prioritized projects.



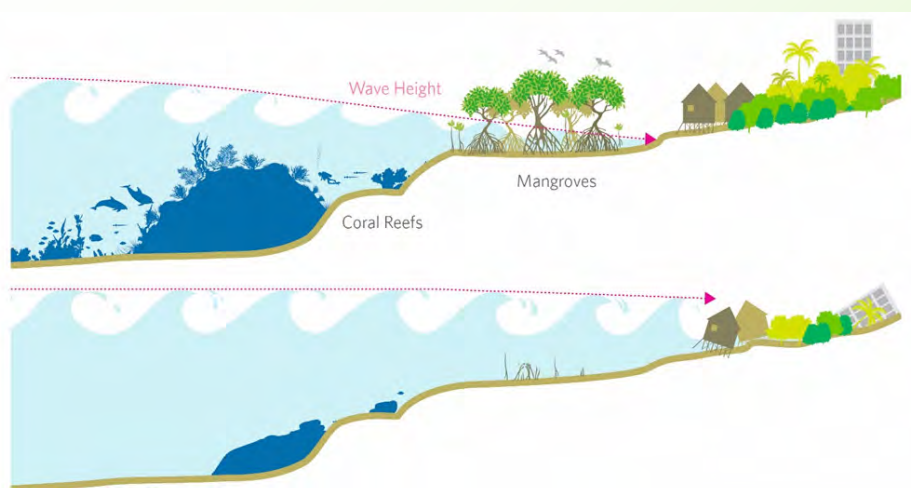


CASE STUDIES

USING SCIENCE-BASED BENEFIT-COST ANALYSES TO OPTIMIZE FLOOD PROTECTION INFRASTRUCTURE

TNC works around the world, helping communities adapt to climate change through nature-based solutions such as restored reefs, mangroves, and wetlands that reduce the impact of storms and flooding. Starting in late 2018, with the support of the Chubb Charitable Foundation, TNC identified over a dozen potential locations in Miami-Dade County where natural and hybrid infrastructure could increase resilience to storms and rising sea levels. Science-based flood modeling and cost-benefit analyses were used to identify the optimal location where people and property could benefit most from a shoreline resilience project. The project is designed to increase flood protection and serve as a model for other parts of Miami-Dade County, other cities in the United States, and globally.

Using a science-based approach that includes cost-benefit analyses allows restoration projects to be optimized for risk reduction potential. Working with institutional investors and other private-sector partners can promote investments in natural solutions; such entities can be an important complement to local governments. Identifying key steps, including performance data on natural assets, will make investing in nature as easy as it is to invest in traditional infrastructure.



FROST SCIENCE'S MUVE INITIATIVE ENGAGES COMMUNITY VOLUNTEERS IN RESTORING NATIVE COASTAL HABITATS

In October 2017, the Frost Museum of Science partnered with the City of Miami and Miami-Dade County, and received a \$287,000 National Fish and Wildlife Foundation Resilient Communities program grant, funded by Wells Fargo, to restore living shorelines on Virginia Key and in East Greynolds Park. This is the first of 100 coastal resilience demonstration sites within the GM&B region planned for the next 10 years. Coastal habitats are called living shorelines because native vegetation allays the impacts of sea level rise and climate change. For example, mangroves are adapted to salt water and their floating seeds can colonize new coastal areas, creating new habitat. Their stilt-like roots stabilize sand and slow down waves while keeping the plant above the water.

As part of the project, the museum will be creating an original exhibition about sea level rise with the help of its Museum Volunteers for the Environment (MUVE). MUVE's mission is to educate people about the environment while also empowering them to be proactive in protecting it. By acting together to help restore native habitats, MUVE volunteers are helping to create a more resilient metropolitan area. Since its inception in 2007, over 8,000 volunteers have restored 25 acres of living shorelines.



GOAL 1: PLACES



OBJECTIVE 1: ENHANCE NATURAL SYSTEMS

ACTION 5: INTEGRATE RESILIENCE INTO PARKS AND OPEN SPACES

HOW THIS WILL HELP US

- ◆ Creates natural habitat
- ◆ Provides recreational opportunities
- ◆ Restores coastal ecology
- ◆ Improves air quality
- ◆ Improves community cohesion

PERFORMANCE METRICS

- ◆ Number of pilot projects completed
- ◆ Number of parks including flood resilience measures
- ◆ Number of parks planting new native trees and vegetation
- ◆ Number of cities adopting similar guidelines
- ◆ Number of parks seeing reduced flooding

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ South Florida Parks Coalition/GM&B municipalities
- ◆ Miami-Dade Parks Foundation
- ◆ Trust for Public Land
- ◆ The Nature Conservancy

FUNDING

Partially funded through departmental budgets; grant funds and other external funds are necessary to fully implement the action



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Public parks and open spaces offer a large-scale opportunity to implement resilient design and innovative resilience measures at multiple scales simultaneously. GM&B will lead by example by using its own publicly owned park lands and open spaces to implement resilience best practices in three pilot projects over the next 5 years. Examples of resilience best practices that will be implemented include restoring living shorelines, increasing the number of park acres and open spaces, planting trees to mitigate increasing temperatures, using green infrastructure to manage stormwater, and restoring native habitat. Resilient park design simultaneously reduces physical vulnerabilities to environmental stressors such as flooding and the urban heat island effect while enhancing community health and resilience.

Using parks and open spaces as living classrooms and examples of resilient design provides a dynamic educational opportunity to the millions of visitors who use the parks each year. Innovative resilient design offers the thousands of school children who attend parks after school, summer, spring, and winter programs the chance to participate in living classrooms to learn about water resources, green infrastructure, and living shorelines, among other concepts. The parks can also serve as living laboratories for innovative resilience design and measures that lead the way for best practices such as Leadership in Energy & Environmental Design (LEED) site planning guidelines.

At a larger scale, the Miami-Dade County Parks and Open Space Master Plan, implemented through the South Florida Parks Coalition, provides community and ecosystem resilience by creating an integrated network of parks, open spaces, trails, civic spaces, and streets that are pedestrian- and bike-friendly. The parks departments of the GM&B are proactively improving this network by strategically targeting land acquisition programs to support transit corridors; transition redfields to greenfields; reduce social, economic, and health disparities; improve east-west and north-south connectivity to provide a seamless park system; and enhance ecosystem and watershed connectivity.



CASE STUDIES

USING SCIENCE-BASED BENEFIT-COST ANALYSES TO OPTIMIZE FLOOD PROTECTION INFRASTRUCTURE

Miami-Dade County's Matheson Hammock Park is a mostly low-lying 630-acre park owned by Miami-Dade County located along the western shoreline of Biscayne Bay in the City of Coral Gables. It is one of the few publicly accessible waterfront areas in the southern portion of the County and the only one with beach access. The park floods during high tide events, which affects its normal operations and accessibility to the park; it is expected to be increasingly impacted by sea level rise.

In 2018, Miami-Dade County funded a sea level rise flood mitigation study to help determine appropriate flood mitigation measures for different areas of the park. The study used the 2015 Southeast Florida Unified Sea Level Rise Projection, prepared by the Sea Level Rise Workgroup of the Southeast Florida Regional Climate Change Compact. The study developed flood mitigation concepts for major infrastructure components within the park out to 2100. It provided a summary of existing conditions, conceptual solutions, a suggested implementation schedule for mitigation, estimated construction costs, and guidance for the planning and design phases of the mitigation concepts. Based on preliminary cost estimates, the proposed improvements are estimated to be \$50 million to \$55 million between now and 2040. The mitigation concepts developed as a part of the study will be used in Miami-Dade County's capital programming considerations for other parks.

RESILIENCE IN PARKS—JOSE MARTI PARK

The City of Miami is working with the Van Alen Institute, a nonprofit organization that works to catalyze positive change in cities, on a climate adaptive design of Jose Marti Park in Little Havana. The park is located on the Miami River and is susceptible to flooding during high tides and heavy rain events due to its current layout, which limits drainage. The goal of this project is to redesign Jose Marti Park to be an adaptive waterfront park that enhances restorative recreation, preserves cultural heritage, improves access to green space and the water, provides solutions to flooding in the short term, and will adapt to sea level rise in the future. The Van Alen Institute will lead a participatory design process and is paying local members from the community to help define and support outreach for engagement activities. The park design will be enhanced by interdisciplinary expertise that incorporates green and gray infrastructure, holistic measures of success, and inclusivity. The design will also seek solutions to increase storm surge protection and rain storm drainage for the surrounding residential community. Final design solutions will be used to inform and inspire future projects at sites with similar conditions (at or near sea level, near a body of water, and subject to flooding).

RESILIENCE IN PARKS—500-700 ALTON ROAD PARK

The City of Miami Beach is a geographically small and dense barrier island, with very few open spaces left for conservation or adaptation. In a rather unique move, the City Commission entered into a development agreement in 2018 with a local developer who will be creating the City's first eco-park in exchange for development incentives that include increased building height allowances. The proposed 3-acre public park, funded by the developer, will include significant and measurable resilience and sustainability components, including:

- ◆ Open green space
- ◆ Florida-friendly native and naturalized plant materials that reduce water consumption and the need for fertilizer and pesticides
- ◆ Stormwater retention capabilities
- ◆ Infrastructure for treating water going to the 6th Street outfall
- ◆ Dedicated pedestrian paths
- ◆ Proposed integration and width of the perimeter sidewalks along West Avenue and Alton
- ◆ Surface lot composed of pervious pavers (no asphalt or concrete), including all parking spaces, drive aisles, and access points from the street



GOAL 1: PLACES



OBJECTIVE 2: SAFEGUARD URBAN SYSTEMS

ACTION 6: REDUCE “BACK BAY” FLOODING

HOW THIS WILL HELP US

- ◆ Protects against storm-related impacts
- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Improves natural disaster preparedness
- ◆ Improves water quality

PERFORMANCE METRICS

- ◆ Dollars secured for adaptation measures

KEY COLLABORATORS

LEAD: U.S. Army Corps of Engineers

- ◆ Miami-Dade County
- ◆ South Florida Water Management District
- ◆ GM&B municipalities
- ◆ Southeast Florida Regional Climate Change Compact

FUNDING

Study fully funded via a Congressional appropriation to U.S. Army Corps of Engineers



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Protecting the areas along Biscayne Bay—known also as the “Back Bay”—from storm surge is much more difficult than protecting the ocean facing portions of the GM&B region because the essential tools of beach nourishment and dunes do not apply to Biscayne Bay. U.S. Army Corps of Engineers is working with GM&B to identify appropriate protective measures that can reduce coastal flooding in those areas. To achieve this goal, U.S. Army Corps of Engineers has launched a 3-year, \$3 million Coastal Storm Risk Management Feasibility Study (CSRM) to explore measures such as upgrading the salinity control structures along the major canals to serve as storm surge barriers, acquisition of land in the floodplain, and/or restoration of mangroves and reefs. Ultimately, designing and constructing these measures could be eligible for partial federal funding if they are deemed technically feasible and cost effective. Reducing the risk of devastating coastal floods in the Biscayne area would benefit the entire GM&B region.

The Miami-Dade Back Bay CSRM will be coordinated with a multi-state coastal management strategy and the South Atlantic Coastal Study, also conducted by U.S. Army Corps of Engineers. The study will conduct regional analyses of coastal risk and identify initial measures/costs that can address vulnerabilities with emphasis on maintaining or enhancing current levels of coastal storm risk reduction. This study will be coordinated with the Southeast Florida Regional Climate Change Compact.



ACTION 7: IMPLEMENT SEA LEVEL RISE STRATEGY

OBJECTIVE 2: SAFEGUARD URBAN SYSTEMS



HOW THIS WILL HELP US

- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Reduction in sunny day flooding
- ◆ Reduces stormwater flooding
- ◆ Replaces aging infrastructure
- ◆ Protects against storm-related impacts

PERFORMANCE METRICS

- ◆ Percent of projects with funding identified
- ◆ Percent of projects implemented

KEY COLLABORATORS

- ◆ LEAD: Miami-Dade County
- ◆ GM&B Municipalities

FUNDING

Fully funded from Miami-Dade County's budget

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B's sea level rise strategy will identify implementable, financially feasible adaptation actions that its GM&B municipalities can use to better prepare for sea level rise and coastal storms. The Strategy will include an analysis of multiple adaptation pathways that will result in improved guidance on how to implement a flexible and adaptable path forward in the face of changing sea level conditions and the associated risks faced by communities across the GM&B region. Recommendations arising from this analysis are expected to be especially useful to local governments tackling these issues.

GM&B's sea level rise strategy will evaluate the economic cost of inaction and the cost of several alternative pathways, including a heavy reliance on gray or green infrastructure. GM&B will also identify short-term capital projects to be implemented by 2022 that will increase the area's resilience to anticipated coastal flooding. GM&B's Strategy will complement other on-going initiatives such as Miami-Dade County's development of a sea level rise checklist for all County capital projects and other larger resilience efforts as highlighted in the County's budget. The GM&B municipalities will be involved during the outreach phase of implementing the sea level rise strategy.



GOAL 1: PLACES





CASE STUDY

STAKEHOLDER RESILIENCE TRAINING

Miami-Dade County provides detailed and cutting-edge skills to public and private stakeholders through training sessions that include demonstrations of online tools to help identify at-risk assets. The training focuses on how to integrate sea level rise into planning and project design as well as on broader water and energy efficiency. These popular training sessions have included:

- ◆ Geographic information systems (GIS) training co-sponsored with the National Oceanic and Atmospheric Administration (NOAA) to provide technical inundation mapping skills to local government staff, students, and private consultants (attended by over 170 individuals).
- ◆ Sea level rise projections and application of those projections to existing projects (attended by 30 transportation professionals).
- ◆ Benchmarking Training workshops to develop skills in analyzing County buildings' energy and water use over time, including comparison to other facilities.

Miami-Dade County will continue to bring national and international resilience experts to the GM&B region and will work to expand outreach efforts, particularly to under-resourced communities. Training offerings are expected to expand to meet demand, both in terms of attendance requests and topics that may arise in GM&B.





GOAL 1: PLACES



OBJECTIVE 2: SAFEGUARD URBAN SYSTEMS

ACTION 8: DEVELOP SEA LEVEL RISE CHECKLIST FOR CAPITAL PROJECTS

HOW THIS WILL HELP US

- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Streamlines government processes
- ◆ Improves natural disaster preparedness
- ◆ Reduces stormwater flooding
- ◆ Reduction in sunny day flooding

PERFORMANCE METRICS

- ◆ Number of capital projects utilizing checklist
- ◆ Number of GM&B municipalities adopting checklist

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ City of Miami
- ◆ City of Miami Beach

FUNDING

Fully funded via staff time



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

The most cost-effective way to systematically protect infrastructure in the GM&B region is to integrate resilience considerations into the design of all new capital improvement projects as early as possible. In support of this concern, Miami-Dade County will develop a sea level rise checklist that compliments existing resilience training programs for capital planning. A previous study by engineering consultants found that an additional \$6 million investment in protective measures would prevent approximately \$24 million in losses and protect Miami-Dade County assets worth more than \$150 million. Additionally, if climate considerations are not integrated into design, key infrastructure may not last its entire design life and additional funds would be required to rebuild or modify the asset.

Miami-Dade County's checklist will help ensure that new infrastructure is built to withstand future floods and storms and that there is a consistent approach across departments to integrate climate change considerations into project designs. A checklist and a clear process will help various departments adopt consistent standards, information, and the best practices for capital projects. Miami-Dade County will convene a working group with key departments responsible for the most critical infrastructure projects to test and refine the checklist format. Miami-Dade County is currently working to create an easy-to-use online tool that provides the data necessary to complete the requested information in the checklist, such as parcel-level information about elevations and flood risk. After developing the checklist, Miami-Dade County will share it with GM&B municipalities, along with best practices, so municipal partners can adapt it to meet their unique needs.



ACTION 9: CREATE DEVELOPMENT REVIEW CHECKLIST

OBJECTIVE 2: SAFEGUARD URBAN SYSTEMS



HOW THIS WILL HELP US

- ◆ Improves natural disaster preparedness
- ◆ Streamlines government processes
- ◆ Reduces sea level rise and coastal flooding impacts

PERFORMANCE METRICS

- ◆ Number of cities who report utilizing checklist
- ◆ Number of buildings constructed using checklist

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ City of Miami
- ◆ City of Miami Beach

FUNDING

Funded through existing staff resources

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

To minimize costs associated with disruption, factoring risk from natural hazards (such as floods) into project designs is a must in a resilient coastal community. With high development pressures, especially in the urban core, affordability and displacement must also be addressed to stabilize the economy and citizen's quality of life. Identifying concerns during the development review process and then modifying projects in the early design phase is typically the most cost-effective stage to adjust a project to improve risk reduction. GM&B will complete a Development Review Checklist and guidance document for GM&B municipalities to use in support of integrating resilience and equity into their development review processes. For instance, the City of Miami Beach has incorporated flood risk considerations into their land use board review processes as a decision-making tool for land use changes. The City of Miami has used the draft GM&B Development Review Checklist to review Special Area Plans and will integrate this resilience and equity review into their standard review processes to ensure that resilience is a consideration at the early stage of large development projects.

GM&B's resource guide, with sample checklists and application questions for development reviews, will help other communities, especially those that are resource-limited, incorporate resilience considerations into their design, planning, and development processes. This resource document will be a valuable aid in developing consistent standards, use of consistent information, and best practices for projects, and its use will facilitate decision making. Once completed, the guidance document will be shared through the Miami-Dade Planners Technical Committee.



GOAL 1: PLACES





CASE STUDY

RESILIENCE PRINCIPLES IN LAND USE DECISIONS

On July 26, 2017, the Miami Beach City Commission adopted an ordinance establishing criteria that the City's four land use boards would incorporate principles to address and plan for the effects of sea level rise and climate change. Since its adoption, over 282 items have been considered by the land use boards. The ordinance also includes separate criteria for the Planning Board when making recommendations on proposed amendments to the Land Development Regulations to the City Commission.

For new developments, applying the criteria means that climate adaptation and mitigation is considered during the review process, and subsequently at the land use board review. This process has encouraged robust dialogue between applicants and staff, informed the review process, and resulted in stronger designs. As part of an application for new development, applicants must address the criteria as part of their letter of intent to develop; as a result, new buildings in the City of Miami Beach are more resilient to extreme weather, more energy efficient, and increasingly adaptable to rising seas.

Historic structures present a unique set of challenges since many were built below current elevation standards. The criteria encourages raising these structures. If that is not feasible, floodproofing must be applied.





GOAL 1: PLACES



OBJECTIVE 2: SAFEGUARD URBAN SYSTEMS

ACTION 10: STRENGTHEN RESILIENCE PLANNING

HOW THIS WILL HELP US

- ◆ Streamlines government processes
- ◆ Improves public realm
- ◆ Reduces duplication of services

PERFORMANCE METRICS

- ◆ Number of GM&B municipalities that incorporate resilience principles in their CDMP

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B municipalities
- ◆ Southeast Florida Regional Climate Change Compact
- ◆ South Florida Regional Planning Council

FUNDING

Fully funded through staff time



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Potential shocks and stressors confronting the GM&B region need to be considered in all aspects of long-range planning. Therefore, resilience initiatives are addressed throughout each element of the Miami-Dade County's Comprehensive Development Master Plan (CDMP). Mandated by state law, Miami-Dade County and its cities must regularly update their CDMPs and document progress in implementing CDMP's goals, objectives, and policies. Updates to the CDMP's maps and text are performed using the Evaluation & Appraisal Report (EAR) process. In 2019, via the EAR update, Miami-Dade County will include resilience as a central principle of the update. Updates will include promoting moderate- to high-density development along transit corridors in areas less susceptible to flooding, and strong protection of the natural systems that attenuate coastal hazards. The update will also address economic resilience, including provision of housing for all income levels. As GM&B municipalities update their CDMPs, templates for resilience components—such as those related to Florida's Peril of Flood legislation—will be made available (via a new, online easy-to-use portal) to GM&B municipalities to adopt as relevant in their communities.

The City of Miami and City of Miami Beach are actively incorporating policies into their CDMPs to increase their resilience. The 2016 CDMP for the City of Miami Beach's EAR update improved policies related to stormwater management and designated the City as an Adaptation Action Area. The revised CDMP employs several strategies to ensure the City can adapt to sea level rise impacts by ensuring that the City provides protective infrastructure, accommodates anticipated future water levels, and manages and avoids development in high risk areas. Specific policies and strategies being considered include ensuring that new development adapts to the impacts of sea level rise; ensuring that greenhouse gas emissions are minimized; providing guidance for future infrastructure improvements to improve resilience; requiring additional study of the needs of historic structures; and addressing the needs of the City's most vulnerable residents.



ACTION 11: MAXIMIZE OPPORTUNITY ZONES

OBJECTIVE 2: SAFEGUARD URBAN SYSTEMS



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Sixty-seven federally designated Opportunity Zones have been mapped in Miami-Dade County to revitalize economically distressed communities using private investments. Governments, not-for-profit organizations, and civic and private groups throughout the GM&B region need to collaborate to develop more holistic strategies to guide investments in Opportunity Zones, ensure achievement of resilient outcomes, maximize the outcome of anticipated investments, and avoid creating unintentionally negative consequences in communities. To accomplish these goals, Miami-Dade County, working with the Miami-Dade Beacon Council, has prepared an Atlas of Opportunity Zones throughout the County. The Atlas includes population and economic data for each zone and will be updated based on additional collaboration with GM&B municipalities and other stakeholders. The Miami-Dade Beacon Council and Miami-Dade County will perform outreach activities, in person and online, to inform elected officials, business owners, developers, investors, and others about the Opportunity Zones. In addition, Miami-Dade Beacon Council, assisted by Miami-Dade County, will create an investment prospectus providing potential Opportunity Fund investors with information on zoning, existing and planned infrastructure, and community goals.

The Atlas of Opportunity Zones was created in response to the Federal Opportunity Zone legislation, which creates favorable tax benefits for offering Opportunity Funds in designated zones. Federal regulations guiding investment in these zones by Opportunity Funds are being finalized. To yield maximum financial benefits, the private sector will be looking to make quick decisions on where to invest. The Opportunity Zone program presents an opening for community leaders to focus on resilient strategies and work with Opportunity Funds to achieve and accelerate broad-based outcomes. The Atlas of Opportunity Zones will facilitate use of the Opportunity Funds.

HOW THIS WILL HELP US

- ◆ Improves housing quality
- ◆ Improves housing affordability
- ◆ Creates community wealth
- ◆ Streamlines government processes
- ◆ Stimulates economic growth

PERFORMANCE METRICS

- ◆ Number of resilient investments made within opportunity zones

KEY COLLABORATORS

LEAD: Miami-Dade Beacon Council

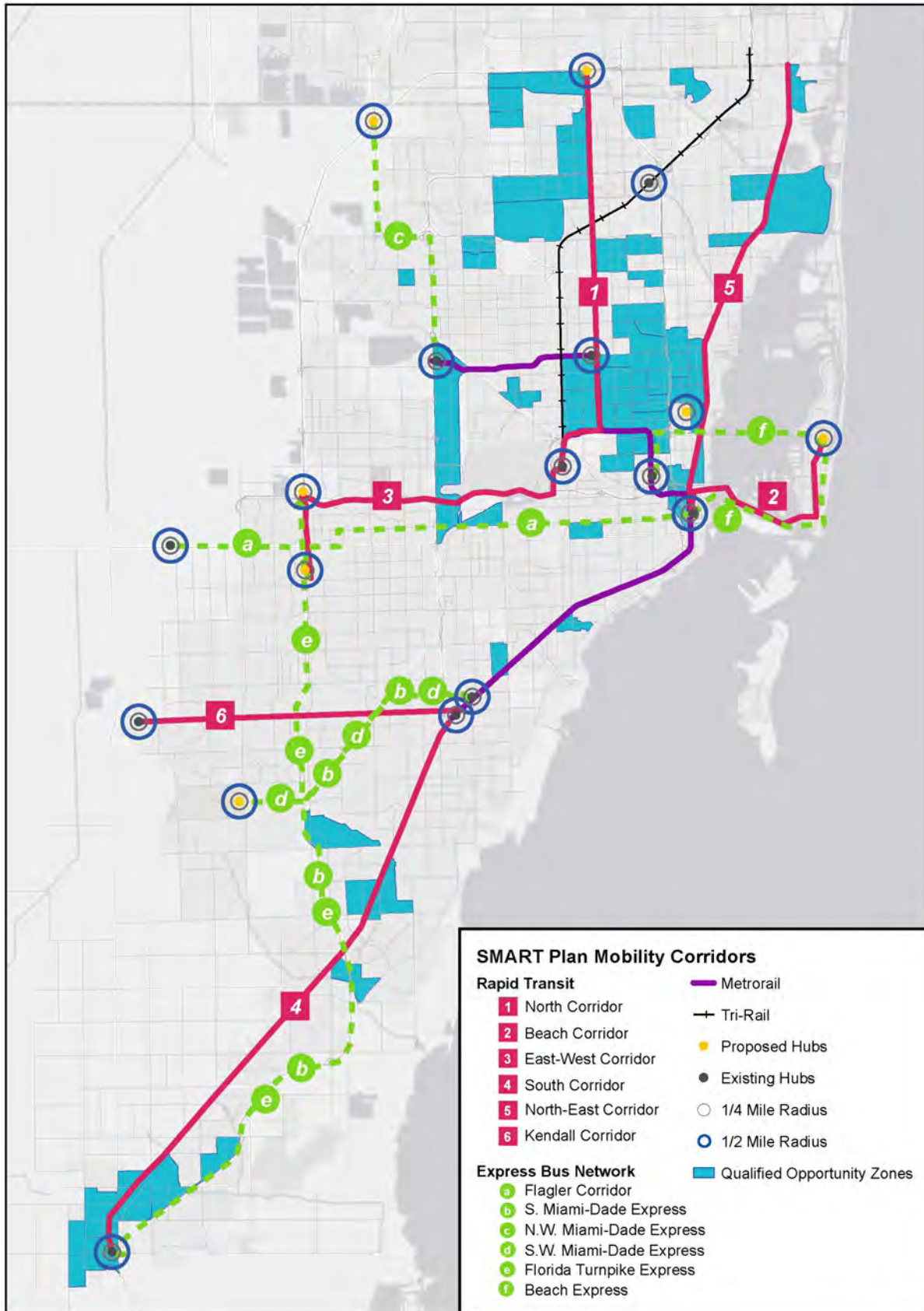
- ◆ Miami-Dade County
- ◆ City of Miami and GM&B municipalities
- ◆ South Florida Regional Planning Council

FUNDING

Fully funded; coordination to be funded by participating entities



GOAL 1: PLACES





STRATEGIC MIAMI AREA RAPID TRANSIT PLAN

As Miami-Dade County continues to experience rapid growth, GM&B recognizes the need to mitigate the costs of congestion. The Strategic Miami Area Rapid Transit (SMART) Plan is a bold infrastructure program of projects that will significantly improve transportation mobility in Miami-Dade County and the South Florida Region. Once implemented, the SMART Plan will lower Miami-Dade County greenhouse gas emissions, reduce travel times, and refocus GM&B away from single occupancy vehicles.

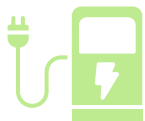
The SMART Plan when combined with newly established Opportunity Zones will further promote economic growth and job creation, as well as increase the region's international competitiveness. The SMART Plan represents a vision for the region that is both strategic and far reaching, creating a system of multiple transportation options by leveraging existing infrastructure, and integrating technology at the highest levels. The plan is comprehensive, proactive, and supports the future population and employment growth anticipated in our region.

The SMART Plan will expand transit options in Miami-Dade County along six (6) critical corridors that are linked to regional, state, national, and global economic markets, as highlighted below. Another critical component of the SMART Plan is a network of Express Buses, known as Bus Express Rapid Transit (BERT), which will connect the SMART rapid transit corridors on limited access facilities, promoting the active expansion of South Florida's Express Lanes network. The SMART Plan will be complimented by a SMART Trails Plan to expand accessnon-vehicular opportunities.





GOAL 1: PLACES



OBJECTIVE 3: CREATE MOBILITY OPTIONS

ACTION 12: DEVELOP MOBILITY HUBS IN THE 305

HOW THIS WILL HELP US

- ◆ Enhances mobility options
- ◆ Decreases traffic congestion
- ◆ Reduces greenhouse gas emissions
- ◆ Improves air quality
- ◆ Improves cyclist and pedestrian safety

PERFORMANCE METRICS

- ◆ Transit mode share
- ◆ Number of last mile alternative options available

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Miami-Dade Transportation Planning Organization
- ◆ Rail & Bus Transportation Providers

FUNDING

Partially funded by multiple transportation entities



TIMEFRAME: MID-TERM (5+ YEARS)

DESCRIPTION

Miami-Dade County will develop Mobility Hubs around current Metrorail, Metromover, and Strategic Miami Area Rapid Transit (SMART) Plan Corridor stations. Mobility Hubs consist of physical improvements that seamlessly integrate different modes of transportation together. The Mobility Hubs will enhance the reach of the current and future transportation corridors including rail and Bus Rapid Transit (BRT) stations. The program will include a design competition for current Metromover and Metrorail stations by the end of 2020 and will develop solutions for mobility providers to enhance service to and from mobility hubs.

Mobility Hubs are a crucial component of expanding access to surrounding neighborhoods that are serviced by rail and bus rapid transit (BRT). Traditionally, transit stations provide non-vehicle access within a ½ mile radius surrounding the station. Mobility hubs provide the opportunity to expand the reach of transit beyond this ½ mile and expand multimodal benefits to additional neighborhoods. Mobility Hubs will also provide opportunities to connect shared-use paths and other non-motorized facilities to the transportation stations and associated transit-oriented developments. The Mobility Hubs action is in alignment with the goal of the SMART Trails Program to identify and address First/Last Mile (FLM) connections. Improvements include:

- ◆ Technology to match trips from rail and BRT to bus, microtransit, transportation network companies, carshare, and other modes through connected real-time navigation through enhanced broadband
- ◆ Dedicated space to serve “last-mile” options, including bus, microtransit, transportation network companies, and carshare
- ◆ Human-centered design to increase safe walking and biking trips
- ◆ Supportive infrastructure to encourage electric, non-polluting transportation options
- ◆ Permeable surfaces to reduce stormwater runoff

Mobility Hubs have great potential to help transform the region and reinforce the policies developed with the current shared mobility work and will promote transit-oriented development.



CASE STUDIES

THE UNDERLINE, A 10-MILE LINEAR PARK AND LIVING ART DESTINATION

The Underline is transforming the underutilized land below Miami-Dade County's Metrorail, from the Miami River to Dadeland South Station, into a 10-mile linear park, world-class urban trail, and living art destination. This linear park will connect communities; improve pedestrian and bicyclist safety; create over 120 acres of open space with restored natural habitats; encourage a healthy lifestyle; provide an easily accessible place to exercise; create a mobility corridor that integrates transit, car, biking, and walking; provide a 10-mile canvas for artistic expression; attract development along U.S. Highway 1; and generate significant economic benefit. Much like the High Line in New York City, the Underline will be open to all and provide amenities and art connecting people to place and each other.

Construction of the Underline will be done in nine phases. The first phase began in November 2018. The total construction and design budget for the first phase is \$120 million, with over \$90 million in public funds already committed. The Underline is led by Friends of The Underline, a 501c3, in partnership with Miami-Dade County, with additional support from the Cities of Miami, Coral Gables, South Miami, the State of Florida, and Florida Department of Transportation. Phased completion will be done as funding becomes available.



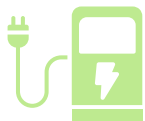
GROWING GREEN BUS STOPS PILOT PROJECT

Growing Green Bus Stops began as pilot project created by Neat Streets Miami in partnership with O. Miami Poetry Festival. The project targeted unshaded bus stops along transit corridors throughout Miami-Dade County to mitigate the urban heat island effect and enhance the transit experience for riders. The project planted two canopy trees at 10 unshaded bus stops (20 trees total) located in different areas across Miami-Dade County. An additional component of the project was stenciling a haiku poem about trees, written by a local resident, onto the surrounding sidewalk. The resulting benefits were threefold: shade creation, beautification of roadways, and public engagement. The project demonstrated how communities can enhance the transit experience while cultivating more awareness about the benefits of trees through relatively small aesthetic and environmental investments.

The pilot project was funded from The Miami Foundation Public Space Challenge grant. Neat Streets Miami, housed in Miami-Dade County, is a multi-jurisdictional County board dedicated to the maintenance and beautification of transportation corridors, gateways, and connections.



GOAL 1: PLACES



OBJECTIVE 3: CREATE MOBILITY OPTIONS

ACTION 13: DESIGN A BETTER BUS NETWORK

HOW THIS WILL HELP US

- ◆ Decreases traffic congestion
- ◆ Enhances mobility options
- ◆ Reduces duplication of services
- ◆ Reduces greenhouse gas emissions
- ◆ Improves community cohesion

PERFORMANCE METRICS

- ◆ Number of monthly/annual bus riders (after new routes launched)

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Transit Alliance
- ◆ GM&B municipalities with public transit programs

FUNDING

Fully funded by a \$250,000 commitment from Miami-Dade County and matching funds raised by the Transit Alliance

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

When it comes to public transit, Metrobus is the most heavily used mode of transportation in Miami-Dade. In 2018, roughly 50 million trips were taken on Metrobus alone. However, ridership has been declining. Transit Alliance (a local public transit advocacy nonprofit) will spend the next 2 years redesigning the Metrobus route network to create a more efficient and more cohesive public transit system. GM&B will support this effort through open collaboration, data, and staff resources.

The bus system is flexible and is the best candidate for short-term improvements that could have a major, positive impact on the use of mass public transit. Ridership has been in steady decline due to increased car ownership, trolley services without fares, longer bus wait times, unreliable service, and a poorly designed route network. This reconfiguration aims to improve service on highly frequented routes; create better connections to other bus lines, trolleys, and other modes of transit; and, design more logical and intuitive route paths. These improvements will work together to enhance user experience and bring riders back to Metrobus. Transit Alliance plans to recommend a new bus route system in late 2020.



SPOTLIGHT

TRANSIT ALLIANCE

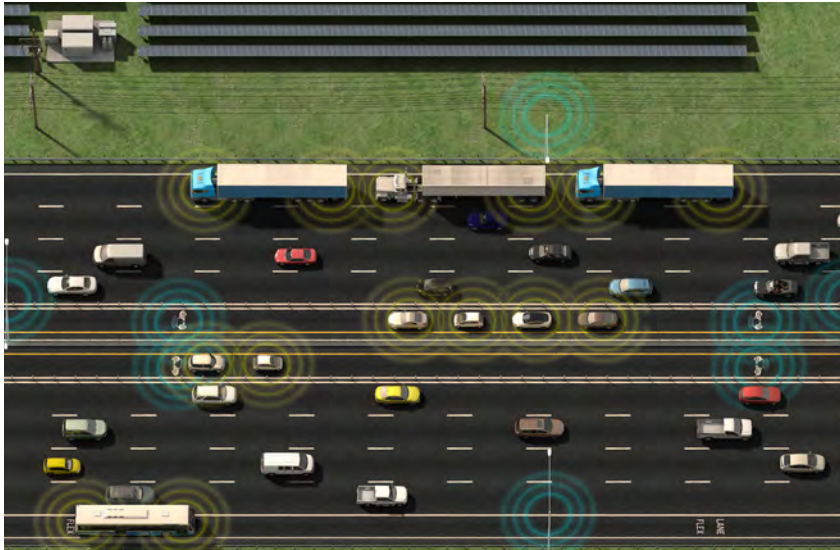
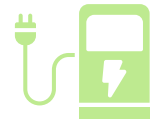
Transit Alliance is a nonprofit organization advocating for walkable streets, bikeable neighborhoods, and better public transit. Its campaigns combine data-driven research, community engagement, and policy advocacy to get residents in the GM&B region moving safer, faster, and happier.





ACTION 14: DRIVE INTO THE FUTURE

OBJECTIVE 3: CREATE MOBILITY OPTIONS



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Driverless cars have much to offer, including the potential of reducing greenhouse gas emissions. Reducing greenhouse gas emissions could be achieved using shared mobility services, vehicle electrification, and smart pricing while not undermining other emission-reduction strategies. As part of the (Re)Defined Mobility project, Miami-Dade County will conduct numerous public workshops to determine which new technology tools and mobility options public and private transportation system customers are comfortable using. At the same time, demonstration projects will be conducted using autonomous vehicles (AVs) and on-demand transit circulators (hail on demand) to evaluate whether these technologies can be successfully integrated into the existing transportation system.

The (Re)Defined Mobility project will bring residents of Miami-Dade County into the decision-making process and explore mobility solutions that match their needs. The project will work to: 1) develop citizen-centric solutions informed by participation in planning, design, and delivery of new mobility solutions; 2) experiment with new mobility solutions and technology with the deployment of AVs; and 3) create a digital interface to manage locations for AV drop-offs and pick-ups.

Ultimately, the project will redefine the transportation planning process by helping to better understand the public's sentiments toward mobility solutions and new technologies in Miami-Dade County. Additional benefits include reduction of greenhouse gas emissions through vehicle electrification and increased occupancy of private and public vehicles, as well as improved walkability and equal access to all residents in the GM&B region.

HOW THIS WILL HELP US

- ◆ Improves communication with residents
- ◆ Decreases traffic congestion
- ◆ Enhances mobility options
- ◆ Reduces greenhouse gas emissions

PERFORMANCE METRICS

- ◆ Number of workshops
- ◆ Number of transportation system users engaged
- ◆ Number of new mobility solutions introduced following workshops
- ◆ Metric tons of greenhouse gas emissions reduced from private cars

KEY COLLABORATORS

LEAD: Miami-Dade County

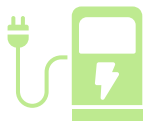
- ◆ Miami-Dade Transportation Planning Organization
- ◆ GM&B municipalities

FUNDING

Fully funded. The pilot project is funded by the Knight Foundation and federal grants



GOAL 1: PLACES



OBJECTIVE 3: CREATE MOBILITY OPTIONS

ACTION 15: IT'S ELECTRIC

HOW THIS WILL HELP US

- ◆ Improves air quality
- ◆ Reduces greenhouse gas emissions
- ◆ Streamlines government processes
- ◆ Improves financial planning

PERFORMANCE METRICS

- ◆ Percentage of GM&B municipalities requiring EV infrastructure in building code
- ◆ Percentage of EVs in municipal fleets
- ◆ Percentage of EV chargers countywide
- ◆ Tons of greenhouse gas emissions from private cars reduced
- ◆ Percentage of registered EVs

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Miami-Dade County
- ◆ GM&B municipalities

FUNDING

Partially funded by Electrify America



TIMEFRAME: SHORT TERM (1-5 YEARS)

DESCRIPTION

Since 2013, electric vehicle (EV) ownership in Miami-Dade County has increased by 450 percent. After California, Florida leads the country in number of registered electric vehicles; by 2030, Florida is expected to reach 30 percent market penetration. To prepare for and catalyze the growth of the EV market, GM&B will enact policies that support development of EV infrastructure (like chargers), seek opportunities to introduce EVs into municipal fleets, and engage in knowledge sharing to create best practices and a unified network.

One perceived barrier to greater deployment and use of EVs is an inadequate network of publicly available chargers. GM&B partners will pass legislation to require EV charger capability in newly built parking structures to set the foundation for EV infrastructure growth. Additionally, GM&B municipalities with existing EV policies and fleets will share their experiences and best practices with other GM&B municipalities to reduce potential concerns and issues. Collective commitment and investment is needed to facilitate an EV transition that will not only significantly reduce vehicle emissions but also save governments and residents operations costs.



CASE STUDY

ELECTRIFYING THE FLEET

In 2015, the City of Coral Gables began drafting its 10-year Sustainability Management Plan to provide a framework for creating a more sustainable and resilient community. One of the goals established in the plan was to reduce gasoline and diesel fuel use 20 percent below 2013 levels by 2025. One way the City has focused on achieving this goal is integrating EVs into its City fleet. The City established a FY 2021 goal of 78 EVs, which represents 60 percent of their administrative fleet. The City purchases these EVs via a statewide procurement contract and has supported the fleet by installing dedicated EV support equipment at its maintenance facility, City Hall parking lot, and municipal parking garages. In 2015, the City began purchasing EVs and currently has a total of 43 EVs in its fleet, making it one of the largest government EV fleets in Florida. The City has been able to fund this through its annual vehicle replacement budget. The installation of 22 charging stations, with a goal of expanding to 43 by 2021, has enabled and inspired the community to start transitioning away from traditional gasoline powered vehicles.

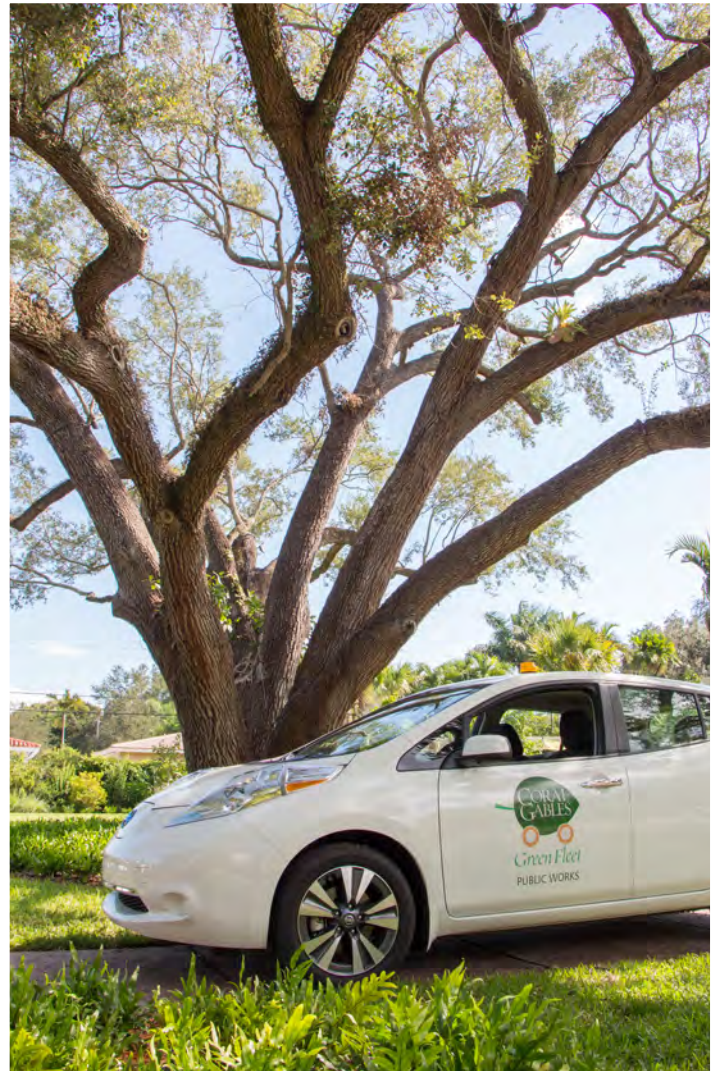
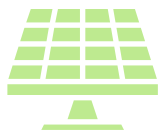


Photo credit: City of Coral Gables



GOAL 1: PLACES



OBJECTIVE 4: INCREASE ENERGY EFFICIENCIES

ACTION 16: EXPAND RENEWABLE ENERGY

HOW THIS WILL HELP US

- ◆ Improves natural disaster preparedness
- ◆ Improves air quality
- ◆ Creates community wealth
- ◆ Creates job opportunities
- ◆ Reduces greenhouse gas emissions

PERFORMANCE METRICS

- ◆ kW renewable energy installed on County buildings
- ◆ Number of PV systems installed on County building
- ◆ kWh solar electricity generated
- ◆ kW renewable energy systems County-wide

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Local Utilities such as Florida Power and Light and Others
- ◆ Solar Cooperatives
- ◆ SolSmart
- ◆ Private Industry

FUNDING

Partially funded



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Miami-Dade County will work with local electric utilities and other stakeholders to reduce greenhouse gas emissions within the GM&B region by implementing energy efficiency and conservation strategies, and by increasing production of renewable energy, battery storage, and similar energy storage systems and microgrids. GM&B will collaboratively implement strategies promoting solar cooperatives and national programs such as SolSmart that foster mature local solar markets. The City of Miami Beach has achieved Gold SolSmart status and Miami-Dade County has achieved Bronze SolSmart status. Miami-Dade County is working towards Gold status.

Uninterrupted access to reliable energy is critical to the GM&B region. Sustaining the region's lifestyle requires a deliberate effort to increase efficiency, use alternative sources, and improve the resilience of energy systems. Implementing these strategies focuses on reducing carbon pollution and consequent heat waves, the leading cause of weather-related deaths in the United States.



SPOTLIGHT

SOLSMART

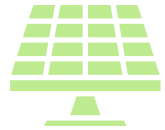
SolSmart is a national technical assistance and designation program that guides communities in lowering the costs and barriers for community members to go solar and encourages solar energy development. The South Florida Regional Planning Council (SFRPC) recently received a technical assistance grant that provided for a SolSmart Advisor to work full-time since November 2018. The SolSmart Advisor provides expertise and dedicated support to communities within and outside of the GM&B region to encourage local solar energy growth with the goal of achieving the SolSmart designation.





ACTION 17: BUILDING EFFICIENCY 305

OBJECTIVE 4: INCREASE ENERGY EFFICIENCIES



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

In Miami-Dade County, energy use in buildings accounts for 37 percent of the County's energy use and climate pollution; these buildings waste an average of about 30 percent of their energy and water use due to building inefficiencies. To help mitigate these issues, Miami-Dade County, in collaboration with GM&B municipalities, will implement the Building Efficiency 305 (BE 305) program. The BE 305 program will promote more efficient buildings through initiatives that improve energy and water use in large, existing buildings, both private and public. The BE 305 program includes a variety of strategies including:

- ◆ Local governments leading by example through benchmarking and improving municipal building performance
- ◆ Promoting financing mechanisms, such as PACE, to assist building owners and managers make efficiency improvements
- ◆ Enhancing building performance through code compliance education and assessments
- ◆ Establishing building performance policies to include annual benchmarking requirements for residential and non-residential buildings
- ◆ Facilitating community training and other educational opportunities focused on improving building performance

The BE 305 program is an innovative approach that uses the deployment of building performance data to drive decision making and transform the marketplace. It aligns with Miami-Dade County's vision to create jobs, enhance economic productivity, improve grid resilience, reduce the residential utility burden on low-income residents, bolster healthy and resilient communities, and initiate progress toward its resilience goals. The program's focus is county-wide implementation in collaboration with GM&B municipalities.



SPOTLIGHT

THE CITY ENERGY PROJECT

The City Energy Project (CEP) is a national initiative that provides technical and strategic assistance to local governments developing programs such as BE 305. The goal of CEP is to create healthier and more prosperous American cities by improving the efficiency of buildings. It is a joint project of the Natural Resources Defense Council (NRDC) and the Institute for Market Transformation (IMT) funded by a partnership of Bloomberg Philanthropies, the Doris Duke Charitable Foundation, and The Kresge Foundation.



HOW THIS WILL HELP US

- ◆ Improves air quality
- ◆ Improves housing affordability
- ◆ Creates community wealth
- ◆ Creates job opportunities
- ◆ Reduces water usage

PERFORMANCE METRICS

- ◆ Tons of greenhouse gas emissions reduced from buildings sector
- ◆ Dollars saved in energy/water bills
- ◆ Gallons potable water saved
- ◆ Number of buildings above 20,000 sq. ft. benchmarked

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B municipalities
- ◆ Florida Power and Light
- ◆ Building industry stakeholders
- ◆ University of Miami

FUNDING

Miami-Dade County and partially funded via grant from City Energy Project that ended in December 2018



GOAL 1: PLACES



OBJECTIVE 5: ENHANCE HOUSING OPTIONS

ACTION 18: STAY AND LIVE IN THE 305

HOW THIS WILL HELP US

- ◆ Improves housing quality
- ◆ Improves community cohesion
- ◆ Creates community wealth
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of affordable housing units preserved/year in City of Miami and Miami-Dade County
- ◆ Number of housing units created annually in City of Miami and Miami-Dade County
- ◆ Percent rent burdened households in City of Miami and Miami-Dade County

KEY COLLABORATORS

LEAD: City of Miami

- ◆ Miami Homes for All
- ◆ FIU Metropolitan Center
- ◆ Greater Miami Chamber of Commerce - Housing Committee
- ◆ University of Miami Housing and Community Development Initiative

FUNDING

Partially funded by the Center for Community Investment

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Working towards regional replication and expanded collaboration, the City of Miami will work with Miami Homes for All to launch initiatives that leverage municipal financing to increase production of affordable housing units. As a final product, Miami Homes for All and City of Miami will prepare and release a guidance document for improved regional collaboration on affordable housing.

This work is being completed as part of the City's participation in the Connect Capital program, a 2-year initiative of the Center for Community Investment that assists communities in attracting capital at a scale to improve residents' health and access to opportunity. The Connect Capital process has helped the City establish a shared set of priorities among diverse stakeholders with strengthened the policies and practices required to achieve the outcomes. The City is working with its private-sector, university, and nonprofit partners to meet an ambitious goal of creating or preserving 12,000 housing units by 2024. In effort to meet this goal the City has identified key policies or regulations that needed to be created or modified (such as an inclusionary zoning policy being piloted in the Omni/Overtown area) and prioritizing the use of publicly owned land for new housing. Some non-policy priorities were also identified, such as improved coordination among regulatory bodies for permitting and collaboration with other governments, institutions, and nonprofits to leverage funding, financing, and/or land. By July 2020, the City of Miami hopes to have adopted a new housing master plan. It is anticipated that the guidance document will be used to develop a coordinated interagency strategy and approach related to housing needs across Miami-Dade County.



SPOTLIGHT

MIAMI HOMES FOR ALL

Since its conception, Miami Homes For All has sought to create formal alliances to break down silos within the homelessness sector and support all individuals who experience homelessness at any point in their lives. Their work concentrates on advocacy, prevention, and informational services to enhance already existing community efforts and fill identifiable gaps.





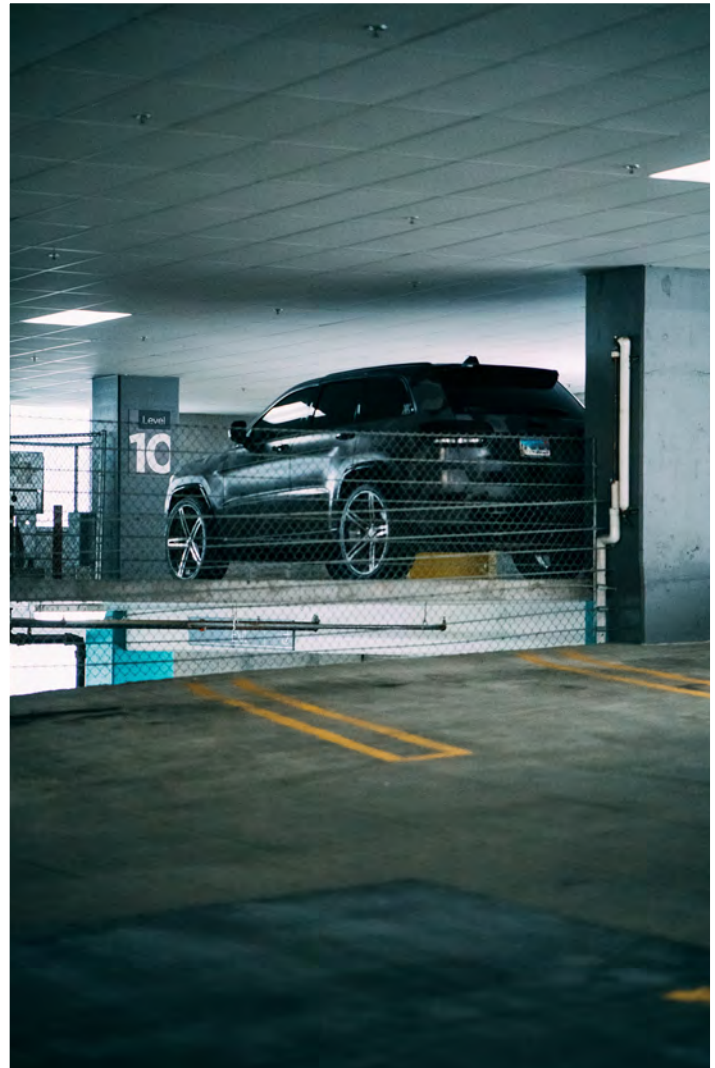
CASE STUDY

DO YOU WANT TO LIVE IN A GARAGE?

With the future of driving and parking your own car in question, the City of Miami Beach City Commission adopted a parking garage convertibility criterion in 2016. Originally conceived to address workforce housing needs, it is an excellent model for adaptive re-use advanced planning. The City of Miami Beach is already seeing a decline in garage utilization and revenue, in part due to the car share disruption created by Uber and Lyft. The criteria for designing a parking garage that could be converted to future housing units include:

- ◆ Increased floor-to-floor heights (10 feet clear floor heights to accommodate future heating, ventilation, and air conditioning (HVAC); plumbing; and electrical systems)
- ◆ Maximized flat area floor plates (keep circulation ramps outside main areas)
- ◆ Reduced vehicular ramp footprints to minimize future non-convertible areas
- ◆ Structural design to accommodate change of use (increased loading)
- ◆ Inclusion of vertical plumbing/waste chases or core for future use
- ◆ Potentially include larger elevator shafts to accommodate future cargo elevators
- ◆ Provide utility connection points for future use

Many variables apply when comparing costs of a traditional garage to convertible one - lot sizes. Zoning requirements and project scope can significantly affect estimates. The differential is in the 15 percent to 25 percent range. The City of Miami Beach is planning for two convertible garages in North Beach to meet today's need and tomorrow's reality.





GOAL 1: PLACES



OBJECTIVE 5: ENHANCE HOUSING OPTIONS

ACTION 19: REDEVELOPING RESILIENT PUBLIC HOUSING

HOW THIS WILL HELP US

- ◆ Improves housing quality
- ◆ Improves housing affordability
- ◆ Improves tenant rights
- ◆ Decreases homelessness
- ◆ Improves community cohesion

PERFORMANCE METRICS

- ◆ Number of public housing units redeveloped or constructed via RAD

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ U.S. Department of Housing and Urban Development

FUNDING

Redevelopment of the first 2,400 units is funded and the approximate additional 6500 units will be funded via the RAD program



TIMEFRAME: SHORT TERM (1-5 YEARS)

DESCRIPTION

Miami-Dade County currently oversees 9,000 public housing units. The cost of renovating or replacing all units is \$2.6 billion. To date, 2,400 units have been redeveloped, are under construction, or closing soon with a total development cost of \$730 million. If the approximately 6,500 remaining units are redeveloped through demolition or new construction, the total cost would be approximately \$1.9 billion. To help complete renovation or replacement of these units, Miami-Dade County was approved to redevelop these under the U.S. Department of Housing and Urban Development (HUD) Rental Assistance Demonstration (RAD) plan.

Miami-Dade County plans to issue nine requests for proposals for the 1:1 redevelopment of site-specific public housing contracts by December 2019. Developers will be required to follow the County's Sustainable Buildings ordinance. Priority will be given to hardened buildings; elevated back-up generators to power common areas; use of solar power and hot water systems, when feasible; and those that ensure water and utility cost-burdens for residents are minimized. Ultimately, this redevelopment will help to fill the gap of pending renovated and updated public housing stock. Miami-Dade County has committed to maintaining the same rent for tenants returning to the redeveloped units. When stacked with additional financing incentives such as Opportunity Zones and opportunities for mixed-use development, redevelopment may even increase the number of public housing units available. Under the RAD plan, strict resident rights (such as resident notices and consultation, right-to-return after temporary relocation, and prohibition of rescreening of resident), relocation assistance, and other benefits allow for greater transparency. Implementation of the RAD planning process will be integrated into the Resilient305 when specific public housing sites are ready for redevelopment.





A strength of Greater Miami & the Beaches (GM&B) is its diversity of people and neighborhoods, which are shaped by a myriad of cultures and characters. Although our economy is strong, many of our residents struggle because of the scarcity of living wage jobs, lack of opportunities for youth, and insufficient support for growing local businesses. The most vulnerable of our population are challenged by public health concerns, from mental health issues to opioid abuse to the threat of pandemics from climate change. Our neighborhoods and communities are not as connected as they could be, leaving some areas isolated when small day-to-day crises occur or big events such as hurricanes strike.

Through our “People” actions, we aim to improve the lives of our residents every day, whether sunny or stormy, by supporting job and wealth creation; addressing specific health needs for the most vulnerable among us; and preparing and empowering neighborhoods and networks to anticipate and respond to disruptions, both large and small.

WHO IS WHO?

THE PARTNERSHIP

Greater Miami & the Beaches
(GM&B)

THE SUPPORTING ORGANIZATION

100Resilient Cities (100RC)

THE STRATEGY

Resilient305

THE IMPLEMENTING TEAM

PIVOT (Progress Innovation Vision
for Our Tomorrow)



GOAL 2: PEOPLE

OBJECTIVO 2:
GENTE

OBJEKTIF 2:
MOUN



Objective 6

Cultivate Financial Stability



Action 20

Action 21

Action 22

Action 23

Action 24

Action 25

Action 26

Action 27

Build an Inclusive Economy

Train for Construction

Promote Fair Chance Hiring

Buy Local

Be Counted

Re-establish the Financial Capability

Collaborative

Teach Kids to Save

Expand Youth Career Opportunities

Objective 7

Advance Public Health Priorities



Action 28

Action 29

Action 30

Action 31

Action 32

Action 33

Action 34

Break the Cycle of Youth Violence

Respect Our Elders

Update the Social Services Master Plan

Advocate for Mental Health

Pilot an Arrest Diversion for Opioid Users

Accelerate Progress of HIV/AIDS Strategy

Advance Pandemics Communication



Objective 8

Strengthen Community Response

Increase Neighborhood Response
Time to Volunteer
Prepare Your Property
Support Resilience Hubs

Action 35
Action 36
Action 37
Action 38

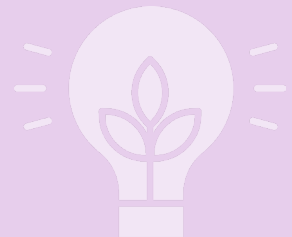


Objective 9

Communicate the Concept of Resilience

Get the 311 on Resilience for the 305
Create a K-12 Plan for Resilience Literacy
See It To Believe It

Action 39
Action 40
Action 41





GOAL 2: PEOPLE



OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY

ACTION 20: BUILD AN INCLUSIVE ECONOMY

HOW THIS WILL HELP US

- ◆ Stimulates economic growth
- ◆ Creates job opportunities
- ◆ Provides youth employment
- ◆ Lifts residents out of poverty
- ◆ Improves industry/job diversification

PERFORMANCE METRICS AND TARGETS

- ◆ Number of organizations committed to local sourcing
- ◆ Number of training partnerships established
- ◆ Number of individuals placed in living wage career tracks
- ◆ Number of small- to medium-sized businesses securing new business

KEY COLLABORATORS

LEAD: Miami-Dade Beacon Council

- ◆ GM&B
- ◆ Health Foundation of South Florida
- ◆ CareerSource

FUNDING

Partially funded by The Miami Foundation



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

One Community One Goal (OCOG), overseen by the Miami-Dade Beacon Council Economic Development Foundation (a not-for-profit affiliate of the Miami-Dade Beacon Council), is a long-term strategic plan for GM&B's future economic, entrepreneurial, and educational success. The OCOG strategic plan brings together a broad spectrum of organizations that work to advance the goal of creating a thriving, inclusive, and diverse community. Since 2012, this community-wide initiative has assisted our community by contributing to the creation of 60,000 target industry jobs over a 5-year period, enhancing our educational ecosystem through new initiatives such as the Academic Leaders Council, and helping build a vibrant population of young professionals. GM&B will work with OCOG co-chairs to advance four specific priorities related to building a resilient and inclusive economy outlined in the Miami-Dade Beacon Council's updated action plan:

- ◆ Support small business growth using technology, outreach opportunities, and connecting small- to medium-sized local businesses with local, national, and global companies and anchor institutions for goods and services.
- ◆ Identify clear pathways for low-skilled youth and adults seeking to advance their careers (including rapid retraining) and build a sustainable model to support and scale middle-skill training programs in the industries targeted by OCOG and construction industries (see Action 21, Let's Build).
- ◆ Facilitate the formation of public-private partnerships in resilient infrastructure, especially in the areas of mass transit, flood risk management, and communications.
- ◆ Continue and expand outreach to businesses related to disaster preparedness, response, and recovery.



CASE STUDY

MIAMI COMMUNITY VENTURES INVESTS IN INDIVIDUAL SUCCESS

With the goal of building long-term economic benefits in communities, Miami-Dade Beacon Council launched the Miami Community Ventures (MCV) initiative to connect low-income, structurally unemployed individuals to living wage jobs. The program specifically aims to aid individuals who are public assistance recipients, returning citizens, at-risk youth (19–29 years), or disabled, with female head-of-households and veterans as sub-groups. Additionally, the program helps struggling residents overcome factors that may keep them from maintaining gainful employment by matching them with wrap-around support services in the areas of job training, child care, success coaching, education (with an emphasis on financial literacy), transportation assistance, and social services for up to 2 years. The MCV program is a model replicated from Michigan's Community Ventures program. Miami-Dade Beacon Council launched the MCV pilot in partnership with Transitions, Inc., Goodwill Industries, and Lotus House in the neighborhoods of Liberty City, Overtown, and Goulds in the Fall of 2018.



SPOTLIGHT

Miami-Dade Beacon Council's ONE COMMUNITY ONE GOAL

In 2012, the Miami-Dade Beacon Council Foundation re-launched its OCOG strategic plan to provide Miami-Dade County with a roadmap for future economic development success. The plan is based on the results of focus groups, surveys, and thousands of hours of community engagement conducted throughout Miami-Dade County. Using this information, a professional research firm developed strategic recommendations to support significant job creation focused on increasing the number of higher-paying jobs. Industry leaders work closely with the education community to develop the proper curriculum for training required to support the growth of the targeted industries.





GOAL 2: PEOPLE



OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY

ACTION 21: TRAIN FOR CONSTRUCTION

HOW THIS WILL HELP US

- ◆ Lifts residents out of poverty
- ◆ Improves industry/job diversification
- ◆ Improves individual well-being

PERFORMANCE METRICS

- ◆ Number of training programs and partnerships formed
- ◆ Number of local residents securing construction jobs

KEY COLLABORATORS

LEAD: City of Miami

- ◆ Miami-Dade Beacon Council
- ◆ Builders and Construction Associations
- ◆ Trade Unions
- ◆ Miami-Dade College

FUNDING

Unfunded

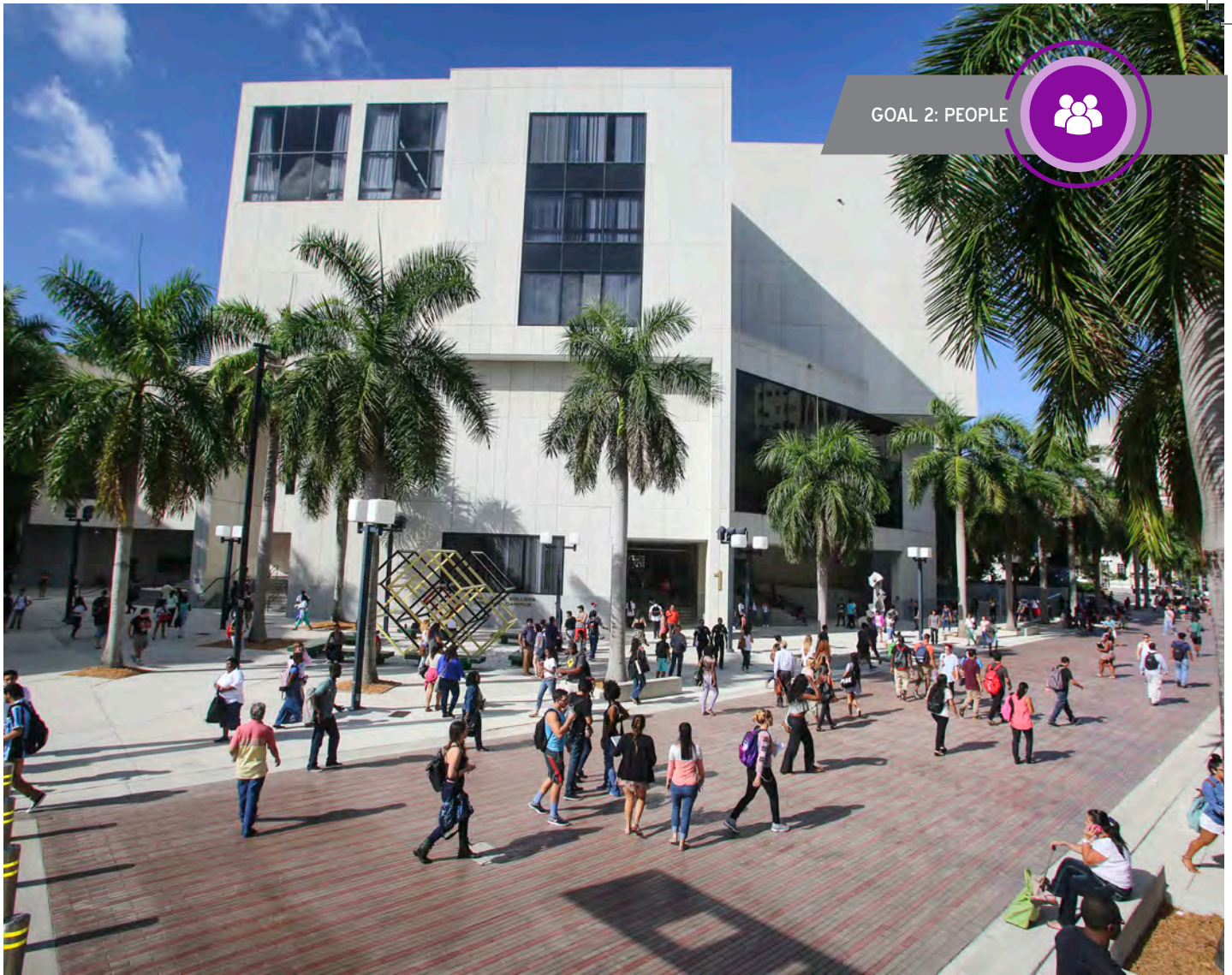


TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B is projected to have \$320 billion in construction work in the next 10 years. To fully realize the economic benefits and ensure an adequate supply of qualified workers within the construction industry, GM&B will engage with Miami-Dade Beacon Council, Miami-Dade College, and other entities to convene stakeholders to address identified industry challenges for these low-barrier, high-demand occupations. GM&B will examine opportunities to leverage their local hiring requirements for construction-related contracts and encourage partner anchor institutions to do the same.

As part of the Resilient305 Strategy development phase, GM&B engaged Fourth Economy to produce a research brief on the region's workforce availability and training capacity in the construction industry. The research brief showed that the industry faces an impending labor shortage as experienced workers begin to retire, and the skills required for new construction evolve. Over 5,000 workers are needed to fill low-barrier, high-demand occupations in construction, i.e., those that require limited training or education and are therefore a solid entry level path for workers to engage in the sector. Challenges include restoring the perception of construction and trade occupations as rewarding and lucrative career paths; developing local partnerships to create a trainee and job placement pipeline with high retention; and improving relevance of and participation in training programs, especially in the areas of new and adaptive construction materials and methods that focus on climate resilience and sustainability. The goal is to create and implement an action plan to better meet the labor force gap, and proactively engage with new populations by training and recruiting workers, particularly in under represented demographics.



SPOTLIGHT

MIAMI DADE COLLEGE

Miami-Dade College has the largest undergraduate enrollment of any college or university in the country and offers multiple programs relevant to the construction industry. The College embraces its responsibility to serve as an economic, cultural, and civic leader for the advancement of our diverse global community.



SPOTLIGHT

FOURTH ECONOMY

Fourth Economy is a national community and economic development consulting firm that focuses on fostering action to create great communities, impactful organizations, and strong economies. The organization aims to effectively blend both quantitative and qualitative inputs to develop realistic recommendations that can be easily understood and readily implemented.





GOAL 2: PEOPLE



OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY

ACTION 22: PROMOTE FAIR CHANCE HIRING

HOW THIS WILL HELP US

- ◆ Reduces neighborhood violence
- ◆ Lifts residents out of poverty
- ◆ Creates job opportunities
- ◆ Improves individual well-being

PERFORMANCE METRICS

- ◆ Number of GM&B municipalities with fair chance hiring ordinances
- ◆ Number of businesses/anchor institutions with fair chance hiring policies
- ◆ Reduced recidivism

KEY COLLABORATORS

LEAD: City of Miami

- ◆ Transitions, Inc.
- ◆ Participating GM&B municipalities
- ◆ CareerSource South Florida
- ◆ Greater Miami Chamber of Commerce

FUNDING

Funded by existing commitments.



TIMEFRAME: MID-TERM (5+ YEARS)

DESCRIPTION

Currently, Miami-Dade County and the City of Miami Beach exercise fair chance hiring policies, commonly referred to as "Ban-the-Box," which removes one barrier to employment for qualified workers with criminal records. GM&B, in partnership with community organizations focused on serving and/or advocating on behalf of returning residents, will promote the expansion of this policy to municipal hires across Miami-Dade County, starting with City of Miami. The City of Miami will write a draft ordinance that can be used as a roadmap for other GM&B municipalities to use.

The "Ban-the-Box" initiative aligns with the statewide "Voting Rights Restoration for Felons Initiative" approved in the 2018 election that aims to reintegrate residents with a criminal history. Fair chance policies promote a qualifications first approach to hiring by moving inquiries about arrest records to the final stages of employment, allowing candidates to be considered without stigma. Over the long term, GM&B, together with community partners, will advocate for anchor institutions and other private businesses to adopt fair chance hiring policies and inform them of benefits they can receive like the Work Opportunity Tax Credit. Implementing these practices at the municipal level will create local best practices that can be adopted by others.



ACTION 23: BUY LOCAL

OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B partners have established policies and programs that provide preference and support for buying and hiring from local businesses. GM&B's strategy to expand opportunities for local businesses relies on anchor institutions as key partners in implementing the Resilient305 Strategy. Using information from past studies and forthcoming action items to be developed in the summer of 2019 by South Florida Anchor Alliance (SFAA) working groups, GM&B will provide participating institutions with a list of proposed high-impact actions to help catalyze "buy and hire local" actions in the region. GM&B will collaborate with the SFAA in developing a resource directory of minority-owned, woman-owned, and local businesses and a resource guide for local businesses interested in pursuing contracts with local governments or other anchor institutions.

SFAA is an initiative of the Health Foundation of South Florida, which requires addressing several associated factors, including economic well-being. This "Buy Local" action builds on the results of a study that examined barriers and opportunities for local institutions to engage in "buy and hire local" actions. The study was conducted in partnership with The Democracy Collaborative, a national leader in the field of community wealth building. Further, the action will be supported and supplemented with SFAA activities in the summer of 2019. SFAA will sponsor participation by procurement and human resource decision makers in working groups that will establish inclusive economy standards/norms, procurement, and workforce strategies with clear activities and benchmarks.

HOW THIS WILL HELP US

- ◆ Stimulates economic growth
- ◆ Creates job opportunities
- ◆ Improves industry/job diversification

PERFORMANCE METRICS

- ◆ Creation of online portal with resources for participating anchors and small businesses
- ◆ Number of local businesses reporting expansion of business

KEY COLLABORATORS

LEAD: Health Foundation of South Florida

- ◆ Local Hospitals
- ◆ Universities
- ◆ Governmental Entities
- ◆ Miami-Dade Beacon Council
- ◆ Private-Sector/Corporate Partners

FUNDING

Partially funded by Health Foundation of South Florida, Citi Foundation, and the Annie E. Casey Foundation.



SPOTLIGHT

HEALTH FOUNDATION OF SOUTH FLORIDA

Health Foundation of South Florida (HFSF) is a public foundation working to invest in and be a catalyst for collaborations, policies, and system changes to improve the health of South Florida communities. HFSF focuses on vulnerable, low- to moderate-income populations. According to the HFSF, in 2017 HFSF established a Community Building and Economic Prosperity Initiative to support the scalability of strategies that engage anchor institutions in practices to elevate the economic well-being of communities and its residents. The creation of this initiative is based on the recognition that improvement in health requires addressing issues such as income, education, housing, transportation, and other neighborhood characteristics.





GOAL 2: PEOPLE



OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY

ACTION 24: BE COUNTED

HOW THIS WILL HELP US

- ◆ Creates community wealth
- ◆ Improves communication with residents
- ◆ Attracts state and federal funding

PERFORMANCE METRICS

- ◆ Participation rates in the census

KEY COLLABORATORS

LEAD: The Miami Foundation

- ◆ Miami-Dade County 2020 Census Task Force
- ◆ Participating GM&B municipalities
- ◆ Health Foundation of South Florida

FUNDING

Unfunded.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

In preparation for the 2020 decennial census, GM&B will take a leadership role to ensure an accurate Census 2020 count by supporting outreach to hard-to-count populations, participating in Complete Count Committees, and identifying key messages and providing public education about the census and the importance of participating. A complete and accurate census is essential for proper federal representation and funding, as well as the creation of a data set that truly depicts our community. An undercount could lose GM&B millions of dollars of federal support for over 50 programs that support our most vulnerable residents, such as the Community Development Block Grant Program; roads, school programs, and lunches; Medicaid; and foster care. Outreach and efforts to ensure a complete count will be bolstered by Miami-Dade County's Census 2020 Task Force's action plan and the information gathered by the task force.

Based on the latest census estimates, approximately 430,025 people (16 percent) in the GM&B region live in hard-to-count neighborhoods, meaning that there was a lower-than-normal return rate for census forms in 2010. The 2020 census, for the first time ever, will offer online response as the primary option to all respondents. The online option may increase response in some areas of the region but may provide a challenge for the roughly 23 percent of Miami-Dade County households that have either no internet access or dial up-only. Through outreach campaigns to build awareness and trust, GM&B and collaborators will make sure everyone has the opportunity to be counted.



ACTION 25: RE-ESTABLISH THE FINANCIAL CAPABILITY COLLABORATIVE

OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY



HOW THIS WILL HELP US

- ◆ Enhances financial stability
- ◆ Lifts residents out of poverty
- ◆ Improves financial planning

PERFORMANCE METRICS

- ◆ Number of innovative strategies implemented by partners
- ◆ Number of individuals served by network services

KEY COLLABORATORS

LEAD: United Way

- ◆ City of Miami
- ◆ Catalyst Miami, Inc.
- ◆ Branches

FUNDING

Partially funded.

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Approximately 59 percent of residents in the GM&B region and 70 percent of City of Miami residents live in “liquid asset” poverty, meaning they have insufficient funds to survive 3 months after a personal or natural disaster. These individuals and households are one emergency (such as a hurricane or flood) away from falling into debt or losing a home. Hurricane Irma, revealed the financial vulnerability of many residents in the GM&B region. To strengthen collective efforts to support financial health and stability, the United Way Center for Financial Stability will reconvene the Miami-Dade Financial Capability Collaborative quarterly meetings to seek innovative solutions for scaling and strengthening the Collaborative’s capacity and reach.

The Collaborative, including the United Way Center for Financial Stability, Catalyst Miami, Inc., and the City of Miami, aims to expand and improve service delivery and integration among dozens of local agencies that help low- to moderate-income individuals and families improve their long-term financial stability. Previously the Collaborative established standards of quality for financial coaching, tax preparation, and other financial stability services; set common metrics and data sharing through regular cross-reporting; drove coordinated services to maximize access and utilization among Miami-Dade County residents; and enhanced staff trainings to provide high-quality financial capability services. Building on these successes, the Collaborative will seek ways to strengthen their programs and identify new opportunities to support residents in the GM&B region.



GOAL 2: PEOPLE



OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY

ACTION 26: TEACH KIDS TO SAVE

HOW THIS WILL HELP US

- ◆ Creates community wealth
- ◆ Enhances financial stability
- ◆ Improves youth graduation rates
- ◆ Improves individual well-being

PERFORMANCE METRICS

- ◆ Number of kindergarteners in first cohort
- ◆ Percent of families receiving free and reduced lunch that participate

KEY COLLABORATORS

LEAD: Catalyst Miami, Inc.

- ◆ The Children's Trust
- ◆ United Way
- ◆ City of Miami + City of Miami Beach
- ◆ Miami-Dade County Public Schools

FUNDING

Partially funded by The Children's Trust and participating GM&B municipalities.

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Children's Savings Accounts (CSAs) are long-term savings accounts that provide incentives to help children and their families build savings for the future. Research indicates that low- to moderate-income children with savings of just \$1-499 when completing high school are three times more likely to enroll in college and four times more likely to graduate. Funds saved in CSAs will be accessible upon high school graduation, which can then help pay for postsecondary education. GM&B will support the expansion of this program by encouraging other GM&B municipalities, anchor institutions, and private partners to support its expansion.

The CSA action is the result of a comprehensive planning process funded by The Children's Trust, United Way, and Citi Community Development, and facilitated by Catalyst Miami, Inc.. From this planning process with key community stakeholders, the Future Bound Miami Consortium emerged with a vision of launching a universal CSA program, with a focus on building financial assets and post-secondary readiness among children from low-wealth families. The program will operate with financial support from both public and private funders. In addition to the initial seed deposit and program incentives, participating children and parents will also have access to free financial education provided by or through Catalyst Miami, Inc. and partners to build financial capability, including information on creating emergency family savings accounts. This program is scheduled to launch in Fall of 2019 in all elementary schools within the City of Miami (reaching a targeted 2,300 kindergarteners). In the second and third years, the program will expand to all elementary schools in Title 1 feeder patterns throughout Miami-Dade County, followed by all remaining elementary schools in years 4 and 5.



SPOTLIGHT

CATALYST MIAMI, INC.

Since 1996, Catalyst Miami, Inc. has helped thousands of residents to become financially secure and civically engaged. Catalyst Miami, Inc.'s mission is to identify and collectively solve issues adversely affecting low-wealth communities throughout the County, based on these principles:

- ◆ PROSPER: We foster prosperity by connecting residents to preventative healthcare options and financial services.
- ◆ LEAD: We teach individuals how to make a difference in their communities through trainings for youth and adults in advocacy and public policy.
- ◆ CATALYZE: Our entire community must work together, across sectors, to create change that improves the quality of life for residents.

CATALYST
M I A M I



ACTION 27: EXPAND YOUTH CAREER OPPORTUNITIES

OBJECTIVE 6: CULTIVATE FINANCIAL STABILITY



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

High school students often encounter barriers when trying to enter job markets that can inform their long-term career decisions. GM&B proposes expanding three existing programs that support Miami-Dade County youth as they leave high school: Big Brothers Big Sisters School-to-Work program; the City of Miami's Summer Jobs Connect Program; and the Summer Youth Internship Program, a collaboration between The Children's Trust and Miami-Dade County. These three programs currently serve approximately 3,225 youth of the more than 75,000 eligible youth in Miami-Dade County. Two of these programs are only active during the summer season; a year-round expansion would allow more youth to be gainfully employed while attending school.

These programs provide benefits to youth by giving them a greater understanding of financial management, real-world work experience, improved interpersonal communication skills, career choice advice and educational guidance, positive adult role models, connections for future career opportunities, resume building for future jobs or college applications, and interview practice.

The Children's Trust will lead this effort with support from Miami-Dade Beacon Council, Greater Miami Chamber of Commerce, and governments involved with GM&B by encouraging and celebrating companies, anchor institutions, and GM&B municipalities that contribute to the programs financially, participate in career-based mentoring programs, and offer paid high school internships.

HOW THIS WILL HELP US

- ◆ Reduces neighborhood violence
- ◆ Lifts residents out of poverty
- ◆ Provides youth employment
- ◆ Improves youth graduation rates
- ◆ Improves industry/job diversification

PERFORMANCE METRICS

- ◆ Number of youths hired during summer and year-round programs
- ◆ Number of career mentoring matches

KEY COLLABORATORS

LEAD: The Children's Trust

- ◆ Big Brothers Big Sisters Miami
- ◆ Miami-Dade Beacon Council
- ◆ Greater Miami Chamber of Commerce
- ◆ Miami-Dade County Public Schools
- ◆ GM&B Municipalities

FUNDING

Partially funded by The Children's Trust, Citi Foundation, Cities for Financial Empowerment Fund, and other corporate sponsors.



SPOTLIGHT

THE CHILDREN'S TRUST

The Children's Trust is supported by a dedicated source of revenue derived from property taxes, established by voter referendum in 2002. Its mission is to partner with the community to plan, advocate for, and fund strategic investments that improve the lives of all children and families in Miami-Dade County. The Trust envisions a community that works together to provide the essential foundations to enable every child to achieve their full potential... Because all children are our children.





GOAL 2: PEOPLE



OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES

ACTION 28: BREAK THE CYCLE OF YOUTH VIOLENCE

HOW THIS WILL HELP US

- ◆ Reduces neighborhood violence
- ◆ Improves community cohesion
- ◆ Reduces duplication of services
- ◆ Improves individual well-being

PERFORMANCE METRICS

- ◆ Number of youth arrests reduced in each zip code
- ◆ Number of community and primary caregiver engagements
- ◆ School attendance rates

KEY COLLABORATORS

LEAD: Together for Children leaders

- ◆ Miami-Dade County Public Schools
- ◆ Miami-Dade County
- ◆ The Children's Trust

FUNDING

Partially funded by The Children's Trust, Miami-Dade County, and the Jorge Perez Family Foundation.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Together for Children, launched in April 2016, aims to address known risk factors that lead to youth violence by effectively connecting youth and their families to neighborhood support, services, and other resources. Through collective engagement, this coalition has leveraged resources, experiences, and ideas to create data-driven, neighborhood action plans to address, reduce, and prevent youth violence. Over the next 5 years, Together for Children is committed to programs in targeted neighborhoods that will strengthen families, empower youth through access to opportunities, and protect the most vulnerable youth. The targeted neighborhoods are Homestead, Florida City, Naranja, Perrine, Richmond Heights, Overtown, Liberty City, Miami Gardens, Opa-locka, Little Haiti, North Miami, and North Miami Beach. GM&B commits to supporting the priorities outlined in the neighborhood action plans developed by Together for Children by connecting with program staff and resources, assisting with progress, and by improving communications along the social services spectrum.

Together for Children's collective impact model ensures that funded initiatives serve both youth and their families and maximize resources by eliminating duplication of referrals and programming offerings. Together for Children and its partners will develop a specialized data system that will lead to refined metrics and data collection processes that will work to correlate the relationship of collective engagement of community with community safety. The data system developed for this action will build on best practices related to data sharing and big data decision making.



ACTION 29: RESPECT OUR ELDERS

OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

To ensure long-term resilience is relevant to long-term population shifts, GM&B will facilitate a review of Miami-Dade County's Age Friendly Initiative (AFI) to identify opportunities for raising awareness about aging population and population shifts, understand implications related to long-term planning, and expand opportunities to engage with AFI. Examples of possible engagement opportunities may be assigning an AFI liaison (for updates and opportunities) to support governments, signing the Age-Friendly Pledge/Mayor's Challenge, or adopting "older adults in all policies" practices. Expanding age-friendly efforts is uniquely important in the GM&B region because of its culture of multigenerational living.

In 2017, Miami-Dade County received official designation as a member of the global Network of Age Friendly Communities by Association of American Retired Persons (AARP) and World Health Organization (WHO). The application for this designation was submitted by Miami-Dade County and facilitated by Miami-Dade's County AFI. This designation reflects a collaboration that supports making our community age friendly, per the World Health Organization framework. The Network of Age Friendly Communities designation means that the GM&B region has committed to addressing age-inclusion in the following domains: 1) housing, 2) transportation, 3) outdoor spaces and buildings, 4) civic participation and employment, 5) community support and health services, 6) communication and information, 7) social participation, and 8) respect and inclusion.

HOW THIS WILL HELP US

- ◆ Improves community cohesion
- ◆ Attracts state and federal funding
- ◆ Lifts residents out of poverty
- ◆ Improves individual well-being

PERFORMANCE METRICS

- ◆ Priority list of resilience-related planning groups established
- ◆ Percent of prioritized groups receiving age-friendly orientation
- ◆ Number of cities participating in the AFI

KEY COLLABORATORS

LEAD: United Way of Miami-Dade

- ◆ Miami-Dade Age Friendly Initiative
- ◆ Florida Department of Health - Miami Dade
- ◆ Health Foundation of South Florida
- ◆ Association of American Retired Persons
- ◆ Urban Health Partnerships

FUNDING

Partially funded.



GOAL 2: PEOPLE



OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES

ACTION 30: UPDATE THE SOCIAL SERVICES MASTER PLAN

HOW THIS WILL HELP US

- ◆ Creates community wealth
- ◆ Improves public realm
- ◆ Improves community cohesion
- ◆ Streamlines government processes
- ◆ Expands access to health services

PERFORMANCE METRICS

- ◆ Dollars secured to complete update

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B
- ◆ Community-Based Organizations

FUNDING

Partially funded by Miami-Dade County;
requires matching funds.

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Miami-Dade County's Social Services Master Plan (SSMP) creatively and comprehensively helps leverage and link Miami-Dade's considerable investments in the areas of economic development, social welfare, housing affordability, education, and other health and human services systems. The SSMP was last updated in 2001. GM&B has identified updating the SSMP as a key action item as the strategies and issues in the plan are outdated. Miami-Dade County allocated \$200,000 in its FY 2018-2019 budget towards updating the SSMP and will work with GM&B and other social service stakeholders to attract the funding needed to complete a comprehensive review and update of the SSMP.

The SSMP addresses social services challenges to give Miami-Dade County citizenry an overall snapshot of the issues and challenges, goals, suggested steps for strategic action, and targeted results and outcomes. As part of updating the SSMP, Miami-Dade County will look closely at the evolving challenges that GM&B communities face, including the HIV/AIDS epidemic, opioid use, and youth violence. The updated SSMP will consider Miami-Dade County's community make-up, will assess how to best provide services, and will identify possible alignments with other community assessments, such as the Mobilizing for Action through Planning and Partnerships (MAPP) process. As part of creating a holistic approach in the updated SSMP, Miami-Dade County will review what services can be integrated to avoid duplication and to best meet citizen's needs in a comprehensive manner. An important consideration will be identifying linkages between people's needs, facilitating access to needed services, and providing those services comprehensively based on individual and neighborhood-level needs.



SPOTLIGHT

CONSORTIUM FOR A HEALTHIER MIAMI-DADE

The Consortium for a Healthier Miami-Dade (Consortium) was formed in 2003 by the Florida Department of Health in Miami-Dade County to address the rising rates of chronic disease in the county. With over 350 partners from various sectors—government, health, academic, nonprofit, and private—the Consortium works collaboratively to tackle the various health issues afflicting Miami-Dade County residents to ensure they live longer, happier, and healthier. Through its various committees, members work on the built environment, nutrition, physical activity, worksite wellness, and tobacco- and smoke-free environments.





CASE STUDY INVESTING IN HEALTHY COMMUNITIES

Live Healthy Community Partnerships (LHCPs) are collective impact initiatives funded by the Health Foundation of South Florida to strengthen a community's capacity to collaboratively plan and carry out health strategies. LHCP launched in 2014, beginning with each community creating a community action plan that defined its health challenges and goals. This 6-year commitment is a strategic and systemic effort to reduce poor health outcomes by engaging community residents to improve public health indicators unique to each community. Two communities currently have funding: Little Havana and Miami Gardens. Each operates through its City government and is eligible for up to \$3.75 million in funding to implement projects.

Live Healthy Little Havana (Viva Saludable Pequeña Habana) aims to improve the health of this historic neighborhood by addressing social determinants of health with priorities in the public realm, education and employment, and housing. Past projects have focused on connecting community members with resources and services, increasing walkability and bikability, improving the public transit experience, and activating spaces for community recreation. Through the initiative, the City of Miami has developed a deeper understanding of and improved engagement with the Little Havana community and plans to use the lessons learned to scale the model to more neighborhoods throughout the City in 2020 and beyond.

Live Healthy Miami Gardens' goal is to improve conditions in the City of Miami Gardens to make it a healthier place to live, focusing on the following Health Impact Areas: alcohol, tobacco, and other drugs; healthy eating and improved nutrition; mental health; physical activity; and primary health care. Past projects have focused on strengthening organizational-level practices and policies around physical activity and nutrition, reducing the stigma of mental illness and connecting community members to behavioral health resources, and encouraging the community to practice healthy behaviors. In 2018, the City of Miami Gardens was awarded an additional \$3.4 million over 5 years from the Centers for Disease Control (CDC) and Prevention to continue this work.

CASE STUDY MOBILIZING FOR ACTION THROUGH PLANNING AND PARTNERSHIPS

The Mobilizing for Action through Planning and Partnerships (MAPP) process is a community-driven framework for improving community health. The process allows the examination of issues such as risk factors for disease, illness and mortality, socioeconomic and environmental conditions, inequities in health, and quality of life. MAPP is not an agency-focused assessment process; rather, it is an interactive process that can improve the efficiency, effectiveness, and ultimately the performance of public health systems. The MAPP process includes four community health assessments: local public health system, community themes and strengths, forces of change, and the community health status. These four assessments can help identify and prioritize health problems and facilitate planning and actions to address those problems. Facilitated by public health leaders, this framework helps communities apply strategic thinking to prioritize public health issues and identify resources to address them.

In 2018, the Consortium for a Healthier Miami-Dade began the assessment portion of the MAPP process, resulting in a list of challenges and opportunities that will be used by stakeholders to identify strategic health issues. By using MAPP, communities seeking to achieve optimal health can identify and use their resources wisely, considering their unique circumstances and needs, and form effective partnerships for strategic action.



GOAL 2: PEOPLE



OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES

ACTION 31: ADVOCATE FOR MENTAL HEALTH

HOW THIS WILL HELP US

- ◆ Reduces duplication of services
- ◆ Improves communication with residents
- ◆ Decreases chronic homelessness
- ◆ Reduces neighborhood violence
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of individuals accessing community based treatment services
- ◆ Number of individuals diverted from the justice system
- ◆ Rates of recidivism to the justice system and acute care treatment settings
- ◆ Rates of housing admission and retention among chronically homeless individuals
- ◆ Number and outcome of mental health calls responded to by Crisis Intervention Team trained police officers
- ◆ Number of school faculty and staff trained to recognize signs and symptoms of mental health needs

KEY COLLABORATORS

LEAD: South Florida Behavioral Health Network, Inc.

- ◆ 11th Judicial Circuit Criminal Mental Health Project (Judge Leifman)
- ◆ Jackson Behavioral Health Hospital
- ◆ Miami-Dade County Homeless Trust
- ◆ Miami-Dade County Public Schools

FUNDING

Partially funded.

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

To enhance existing programs and fill much needed gaps, GM&B will advocate, at the state and federal level, for more proportional per capita funding for evidenced-based mental health and substance abuse treatment services that will reduce costs to individuals and society. Greater Miami & the Beaches is home to the largest percentage of people with serious mental illnesses of any urban community in the United States. Yet, the State of Florida ranks near the lowest (48th out of 50) in per capita spending for publicly-funded treatment. Roughly 9.1 percent of Miami-Dade residents experience serious mental illnesses, however fewer than 13 percent of these individuals receive care in the public health system.

To better inform funding requests, South Florida Behavioral Health Network, Inc. will lead on developing approaches to determine both the societal cost of our current inadequate mental health and/or substance use treatment options, as well as the economic benefits of increased investments in evidence-based treatment programs. System performance measures will be identified to measure return on investment and ensure accountability for resources allocated because of GM&B's advocacy. In addition, advances in information technology and data analytics will be used to facilitate collaboration among providers of care and to ensure appropriate services are available when and where they are needed.

This work will also help GM&B secure the resources needed to fully operate the Miami Center for Mental Health and Recovery, a first-of-its-kind mental health diversion facility designed to serve individuals who are frequent and costly reoffenders to the criminal justice system, homeless continuum of care, and acute care medical and mental health treatment systems. The facility, to be operated by the South Florida Behavioral Health Network, Inc., will offer a comprehensive continuum of mental health, substance use, and serve as a focal point in the community for the development and dissemination of best practice standards in clinical care, education, research, and community outreach and advocacy.



SPOTLIGHT

SOUTH FLORIDA BEHAVIORAL HEALTH NETWORK

South Florida Behavioral Health Network is committed to improving the lives of people with mental disorders and addiction problems. The goal is to develop, implement, and refine a coordinated system of behavioral health care within the community that enhances prevention, treatment, and recovery. The vision of the South Florida Behavioral Health Network is to be a nationally recognized system of care for those at risk and affected by substance use and mental health illnesses.





ACTION 32: PILOT ARREST DIVERSION FOR OPIOID USERS

OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

While opioid addiction is a growing epidemic throughout GM&B, the City of Miami, as the urban core and host of many social services, is a natural magnet for illicit drug users and transactions. Of the 5,404 drug-related arrests in Miami-Dade County during the first 6 months of 2018, 2,351 of them occurred within the City of Miami. In addition, it is estimated that 40 percent of Miami's addict community is homeless. Through grant supported funds, Miami-Dade County, the City of Miami, and Jackson Behavioral Health Hospital (JBHH) recently launched a first-of-its kind arrest diversion program for individuals identified by police officers as having felony possession of opioids for personal use. This program is a major step forward, serving about 100 individuals a year over 3 years, but it will not produce enough new treatment capacity to help everyone in the throes of opioid addiction. Miami-Dade County, the City of Miami, and JBHH will seek additional support to provide more treatment capacity at JBHH and more dedicated long-term housing.

This arrest diversion program is based on the Law Enforcement Assisted Diversion program in the Seattle area, but is unique in its ability to legally bind participants, via voluntary opt-in, to direct substance abuse and mental health treatment services without having them enter the criminal justice system. Individuals who choose to participate in the 12-month treatment program sign a binding treatment agreement that admits them to JBHH for medically supervised withdrawal and medication assisted treatment, as well as mandated therapy and individual case management. If expanded, this arrest diversion program could be made available to other GM&B municipalities.

HOW THIS WILL HELP US

- ◆ Decreases homelessness
- ◆ Expands access to health services
- ◆ Improves individual well-being
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Recidivism rate in target population
- ◆ Number of individuals served/year

KEY COLLABORATORS

LEAD: City of Miami Police

- ◆ City of Miami Human Services (Veterans and Homeless Affairs)
- ◆ Jackson Behavioral Health Hospital
- ◆ Behavioral Science Research Institute
- ◆ Miami-Dade County Opioid Addiction Task Force

FUNDING

Partially funded by the U.S. Department of Justice.



GOAL 2: PEOPLE



OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES

ACTION 33: ACCELERATE PROGRESS OF HIV/AIDS STRATEGY

HOW THIS WILL HELP US

- ◆ Expands access to health services
- ◆ Streamlines government processes
- ◆ Attracts state and federal funding
- ◆ Improves individual well-being

PERFORMANCE METRICS

- ◆ Percent decrease in HIV transmission rate within Miami-Dade County

KEY COLLABORATORS

LEAD: Florida Department of Health in Miami-Dade County

- ◆ Office of AIDS Central Office
- ◆ Ryan White Part A / Minority AIDS Initiative Program
- ◆ Care Resource Center
- ◆ University of Miami

FUNDING

Unfunded.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Miami-Dade County has the highest rate of new HIV/AIDS infections of any city in the United States, with one in 85 adults living with HIV/AIDS. In September 2016, the Office of the Miami-Dade County Mayor, the Miami-Dade HIV/AIDS Partnership, and the Florida Department of Health established the Miami-Dade HIV/AIDS "Getting to Zero" Task Force as a means of mobilizing resources and expertise throughout the Miami-Dade community in a concerted effort to address the HIV/AIDS epidemic. The Task Force established a set of 16 strategic action recommendations aimed at addressing this major public health issue in a culturally competent manner, given Miami-Dade County's large immigrant population, and the entire spectrum of HIV/AIDS issues. GM&B will help advance progress of this Strategy by engaging the entities and individuals championing broader, regional recommendations and creating connections with governments and key institutions to expand impact. Partnerships and actions will be informed by determining where, geospatially, HIV/AIDS is being transmitted and where those living with HIV/AIDS reside to make response as place-based as possible. In addition, the Florida Department of Health and stakeholders will align tactics with the National HIV strategy, "Ending the HIV Epidemic: A Plan for America."



GOAL 2: PEOPLE



CASE STUDY EXPANSION OF AIDS DRUG ASSISTANCE PROGRAM

The Resilient305 action development process included obtaining ideas from the Founder and Medical Director of Infectious Disease Elimination Act (IDEA Exchange), Florida's first authorized syringe exchange program, as to how to reduce HIV incidences among people who inject drugs.

Resilient305 was able to connect the IDEA Exchange, whose focus is HIV prevention and linkage to care and treatment, to the Florida Department of Health to discuss how IDEA Exchange patients can reduce their viral load. One method is improving medical compliance by referring clients to and streamlining enrollment in the AIDS Drug Assistance Program (ADAP), which serves those with incomes below the federal poverty level and who are unable to afford antiretroviral medications. In addition, IDEA Exchange was informed about third-party prescription pickup and was authorized to pick up medication for seven of their clients, removing a barrier to medical compliance. In fact, IDEA Exchange stated that they "feel certain that this process is essential for keeping these clients compliant with their treatment." Through closer cooperation and communication, ADAP and IDEA Exchange have been able to better serve their common clients, taking advantage of the services already in place.



SPOTLIGHT

FLORIDA DEPARTMENT OF HEALTH IN MIAMI-DADE COUNTY

Florida Department of Health in Miami-Dade County is the local branch of the Florida Department of Health and has served the Greater Miami-Dade County community since the 1940s. The responsibilities of the DOH-Miami-Dade are to prevent epidemics and the spread of disease, protect against environmental hazards, prevent injuries, promote and encourage healthy behaviors, respond to disasters and assist communities in recovery efforts, and ensure the quality and accessibility of health services.





GOAL 2: PEOPLE



OBJECTIVE 7: ADVANCE PUBLIC HEALTH PRIORITIES

ACTION 34: ADVANCE PANDEMICS COMMUNICATION

HOW THIS WILL HELP US

- ◆ Enhances access to community-based interventions
- ◆ Improves natural disaster preparedness
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of cases of locally transmitted mosquito-borne diseases

KEY COLLABORATORS

LEAD: Florida Department of Health

- ◆ Centers for Disease Control and Prevention
- ◆ Miami-Dade County
- ◆ City of Miami
- ◆ City of Miami Beach

FUNDING

Unfunded.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

The Zika Virus detected in Miami in 2016 was most likely brought to the region by unknowing travelers. GM&B was the first community experiencing the Zika virus known to successfully eradicate it and break the chain of Zika transmission, but the outbreak did reveal gaps in collective action and preparedness to deal with new pandemic threats. GM&B will work with the state and local Departments of Health, the Centers for Disease Control and Prevention, and other necessary stakeholders to reevaluate pandemic risks and determine how to continue to improve collective response in the case of a disease outbreak.

Going forward, climate change, urban densification, and globalization will all increase the GM&B region's vulnerability to disease pandemics. Miami's biodiversity and climate make it a hotspot for species that can carry and transmit viruses to humans (e.g., mosquitoes, bats, birds). In addition, high volumes of travelers, both domestic and international, put Miami at risk for disease interception. Pandemic threats can have broad, intersectional impacts, such as the economic impacts that came because of Zika. Other areas of potential impact could be tourism interruption, stress to existing healthcare systems due to patient surges, worker absenteeism, and mistrust of public infrastructure such as public transit. Assessing the current readiness status of GM&B will assist communities in determining resources and planning needs during a pandemic. Determining ways to improve community-wide immunity as well as identifying trigger points to activate pandemic response are crucial for preventing and addressing disease outbreaks. As a global community, GM&B must be ready to fight pandemics not only to protect residents but also to improve global immunity.



CASE STUDY ZIKA—FROM SHOCK TO STRESS

In August 2016, the Florida Department of Health (FL-DOH) confirmed two local Zika transmission zones: one in the Wynwood neighborhood of the City of Miami and the other in Miami Beach. This type of shock was new for the region and the two municipalities, along with Miami-Dade County, mobilized quickly with the assistance of state and federal partners. Internally, each entity pulled expertise and directed action across multiple departments; this was not an issue one department could take on its own. Daily calls with the FL-DOH, County, and surrounding jurisdictions took place to discuss mosquito trap counts, health-related information, and deployment strategies.

Staff canvassed the designated Zika Transmission Zones to identify mosquito breeding conditions, remediate concerns, and educate residents and businesses on ways to “Drain & Cover” and “Fight the Bite.” Resident outreach was key during this event as residents needed to feel informed and confident in the government response to maintain trust and ensure cooperation in cleanup and mitigation efforts. Standardized messaging, written in pamphlets and other materials, was sent and handed out Countywide to ensure the same information was provided to the public.

This collaborative approach was highlighted by the Centers for Disease Control and Prevention as a “best practices” model to build on for other municipal and county entities. Moving forward, the potential for mosquito-borne illnesses is a stressor that will be monitored.



GOAL 2: PEOPLE



OBJECTIVE 8: STRENGTHEN COMMUNITY RESPONSE

ACTION 35: INCREASE NEIGHBORHOOD RESPONSE

HOW THIS WILL HELP US

- ◆ Improves natural disaster preparedness
- ◆ Improves community cohesion
- ◆ Enhances community-based interventions
- ◆ Reduces duplication of services
- ◆ Expedites disaster recovery

PERFORMANCE METRICS

- ◆ Number of individuals CERT trained
- ◆ Number of trainings held
- ◆ Number of CERT trainings
- ◆ Number of CERT trained individuals residing in low-income neighborhoods

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ City of Miami Beach
- ◆ City of Miami
- ◆ City of Miami Gardens Police Department
- ◆ City of North Miami Police Department

FUNDING

Partially funded by various grants.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

The Community Emergency Response Team (CERT) Program empowers communities and educates residents about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. There are near 5,000 trained CERT volunteers in Miami-Dade County. Miami-Dade County will work together with GM&B municipalities to GIS map and identify CERT gaps within GM&B to facilitate CERT programs, coordinate CERT teams, and provide training to CERT team leaders. Municipal CERT coordinators will identify high-need communities to place trainings and recruit where most needed. Miami-Dade County will maintain a master list of CERT-trained volunteers. In addition, Miami-Dade County will offer more diverse training opportunities (CERT*) for CERT trainees to allow them to expand their skillset.

Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community. Increasing the number of CERT volunteers in the County and helping them organize into teams will increase neighborhood resilience and help build a culture of preparedness.



CASE STUDY WEST COCONUT GROVE CERT PROGRAM

The West Coconut Grove CERT team plays a critical role in the resilience of its neighborhood and serves as a model for future CERT teams. Led by a former City of Miami firefighter, the team is the County's largest and most active CERT team; it doubled its size between 2017 and 2018. The team meets once a month to maintain readiness. Its organizational structure, combined with its integral community connections, led to its highly successful first major deployment, responding to Hurricane Irma.

The week before the storm, members of the team met to divide their neighborhood into walkable areas so they could hand out storm preparation information and identify residents who were not evacuating. In conjunction with the Thelma Gibson Health Initiative, the team created a list of individuals who might need electricity for medical purposes as well as food and water to check on after the storm.

After the storm, the team got right to work. A designated central dispatcher coordinated communications and fed information from team members on the ground to support entities, as needed. In addition to door-to-door activity, the team also worked with local supermarkets and restaurants to fill the five local food banks and activate volunteers to help cook for hungry residents.



GOAL 2: PEOPLE



OBJECTIVE 8: STRENGTHEN COMMUNITY RESPONSE

ACTION 36: TIME TO VOLUNTEER

HOW THIS WILL HELP US

- ◆ Improves natural disaster preparedness
- ◆ Enhances community-based interventions
- ◆ Improves community cohesion
- ◆ Expedites disaster recovery

PERFORMANCE METRICS

- ◆ Number of volunteers registered on portal
- ◆ Number of organizations using the site to share opportunities
- ◆ Number of active volunteers

KEY COLLABORATORS

LEAD: United Way

- ◆ Participating GM&B Municipalities
- ◆ Community-Based Organizations in GM&B that assist with disaster relief

FUNDING

Funded by United Way.



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

United Way recently expanded its online portal for recruiting and connecting with volunteers before, during, and after a disaster. The expanded function of the portal allows United Way to identify volunteers by special trainings and skills (e.g., medical, childcare, language, CERT). It also promotes training offered by Miami-Dade County, American Red Cross, and other partners. As of March 2019, there were over 1,200 volunteers registered to serve in the GM&B region. By June 2019, United Way will launch an additional upgrade to the portal that will allow GM&B municipalities and community organizations to post and promote volunteer opportunities in the GM&B region for disaster-related volunteer activities. The expanded capability will also streamline the processing of background checks.

Before hurricane season each year, United Way will kick off the season with a volunteer opportunity to help residents get prepared for the upcoming hurricane season. GM&B partners will support this action by promoting the volunteermiami.org portal to their residents and community-based organizations and by using the portal as a resource for their own volunteer needs.



SPOTLIGHT

UNITED WAY

United Way of Miami-Dade is the County Office of Emergency Management's official volunteer and donations arm before, during, and after a disaster. Before, during, and after Hurricane Irma, United Way supported the GM&B region by recruiting volunteers; raising money through Operations Helping Hands; collaborating with local restaurants to provide hot meals to first responders and people in need; coordinating efforts with Feeding South Florida, Salvation Army, the Fire Department, and Miami-Dade County to deliver food, water, and ice to numerous shelters across Miami-Dade County; and providing volunteers to distribute ice and support cleanup efforts at various locations throughout the GM&B region.





ACTION 37: PREPARE YOUR PROPERTY

OBJECTIVE 8: STRENGTHEN COMMUNITY RESPONSE



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

The City of Miami will partner with public and private organizations to develop outreach content and events to assist property owners to understand their vulnerability to flooding and their options for reducing that risk. Information will be prepared and delivered in a manner that is easily digestible using the best available data. Given the unpredictability of future conditions, the City of Miami intends to communicate known uncertainties while still providing actionable solutions. Information on a variety of flood protection methods appropriate for different time horizons and budgets, along with options for financing, will be created and made available. Not only will this information be available online, it will be disseminated through workshops and outreach events throughout the City.

The goals of this action are to improve residents' preparedness for flood-related incidents, increase citizen's confidence in their ability to adapt to changing environmental conditions, and strengthen the lines of communication between local governments and residents. These outreach efforts also provide the opportunity for local governments to communicate local actions taken to address flooding (e.g., raising roads, installing pump stations, enhancing green infrastructure).

The City of Miami will determine the best mechanisms for keeping the distributed information up to date and will document the results of these tools and events to share best practices with GM&B municipalities.

HOW THIS WILL HELP US

- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Improves natural disaster preparedness
- ◆ Protects against storm-related impacts
- ◆ Improves communication with residents

PERFORMANCE METRICS

- ◆ Number of property owners attending events
- ◆ Number of unique visits to resources site
- ◆ Number of property owners who report acting based on resources provided

KEY COLLABORATORS

LEAD: City of Miami

- ◆ Miami-Dade County
- ◆ City of Miami Beach
- ◆ Mix of University, Private, and Nonprofit Partners

FUNDING

Partially funded by the City of Miami.



OBJECTIVE 8: STRENGTHEN COMMUNITY RESPONSE

ACTION 38: SUPPORT RESILIENCE HUBS

HOW THIS WILL HELP US

- ◆ Improves natural disaster preparedness
- ◆ Enhances community-based interventions
- ◆ Improves community cohesion
- ◆ Improves communication with residents
- ◆ Expedites disaster recovery

PERFORMANCE METRICS

- ◆ Number of resilience hub sites launched by end of 2020
- ◆ Number of residents visiting resilience hub month
- ◆ Number of residents served after a natural disaster

KEY COLLABORATORS

LEAD: Catalyst Miami, Inc.

- ◆ The Miami Foundation
- ◆ Miami-Dade County
- ◆ Participating GM&B municipalities

FUNDING

Partially funded by The Miami Foundation, Citi Foundation, Robert Wood Johnson Foundation, and CRUO Fund at Movement Strategy Center.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Throughout Miami-Dade County, local governments and non-profits alike have been working towards improving connection and access to information and services that are vital to community building and personal resilience. To achieve this, a local community advocacy and empowerment organization, Catalyst Miami, Inc., has started to work with governments and community members to develop “resilience hubs” in five target communities: Hialeah, Homestead-Naranja, Little Haiti, Miami Gardens, and Overtown. GM&B will support and embrace the establishment of resilience hubs and will determine how to integrate operations across the region to best serve communities. An important aspect of the resilience hubs will be to establish clear communication pathways during disaster events to ensure community needs are met.

Resilience hubs will serve a crucial role in disaster preparation and response, but they will also operate year-round. They will offer connections to government initiatives, as well as their own programming and supplemental social services. Catalyst staff will serve as supplemental community liaisons and help entities connect with the individuals they serve. The model built by these resilience hubs can be replicated widely and used to address every neighborhood’s unique resilience challenges.



SPOTLIGHT

THE MIAMI FOUNDATION

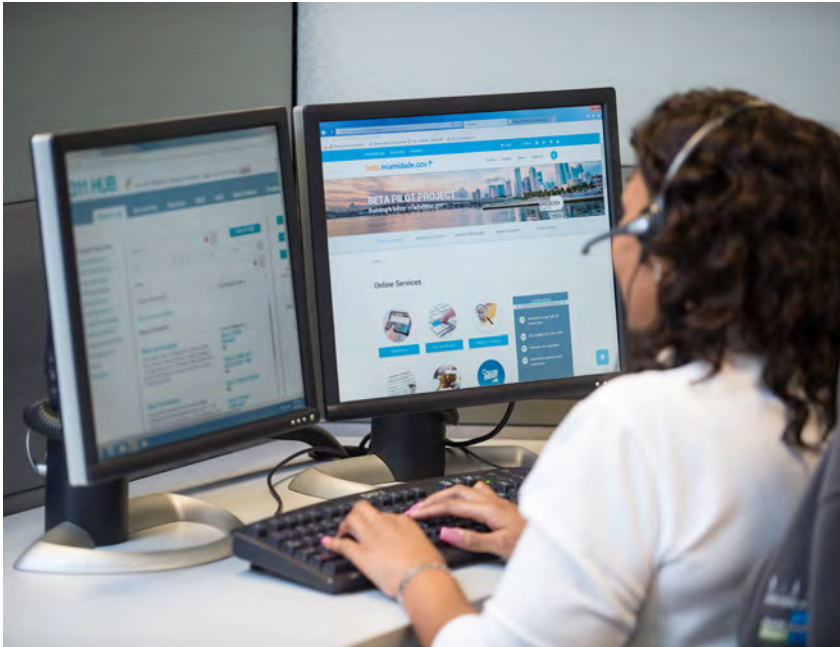
Since 1967, The Miami Foundation has served as the primary community foundation dedicated to improving the quality of life in Miami-Dade County. The Miami Foundation has invested more than \$300 million in grants and scholarships. Following Hurricanes Irma and Maria in 2017, The Miami Foundation awarded more than \$5.4 million to support organizations addressing key recovery needs in the GM&B region, enhancing long-term capacity of communities to be better prepared, supporting resilience hubs, and coordinating key multisector





ACTION 39: GET THE 311 ON RESILIENCE FOR THE 305

OBJECTIVE 8: COMMUNICATE THE CONCEPT OF RESILIENCE



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Miami-Dade County has a robust and well-developed 311 Contact Center that addresses questions and places service requests from callers; this center is an excellent resource that can be used by GM&B. GM&B will leverage the 311 Contact Center to distribute resilience-related information about relevant direct services and projects, as pertinent. To accomplish this, GM&B will provide the 311 Contact Center an informational script and FAQs designed to provide information about our shocks, stressors, actions, and services. This information will be made available to callers. GM&B will provide the initial information and provide an annual review and update of the information. The 311 Contact Center will also be a resource for launching new campaigns related to resilience actions; the information will be disseminated as messages that callers hear while waiting for an operator. The 311 Contact Center, in turn, will share important resilience data, such as information or service requests, that will be useful to GM&B for its resilience Strategy actions.

HOW THIS WILL HELP US

- ◆ Improves communication with residents
- ◆ Increases understanding of resilience
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of 311 calls related to key resilience issues
- ◆ Number of knowledge bases created about resilience

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B

FUNDING

Funded through the existing Miami-Dade County budget.



GOAL 2: PEOPLE



OBJECTIVE 9: COMMUNICATE THE CONCEPT OF RESILIENCE

ACTION 40: CREATE A K-12 PLAN FOR RESILIENCE LITERACY

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience

PERFORMANCE METRICS

- ◆ Number of K-12 curriculum modules/courses per grade integrating climate change

KEY COLLABORATORS

LEAD: Miami-Dade County Public Schools

- ◆ Miami-Dade County
- ◆ South Florida Water Management District
- ◆ FIU School of Education and Sea Level Solutions Center
- ◆ The CLEO Institute
- ◆ Dream in Green

FUNDING

Unfunded.



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B is committed to fostering a future workforce and citizenry that understands the causes and impacts of climate change on our natural and man-made systems and is prepared to lead in a new resilient economy. Miami-Dade County Public Schools, together with its multiple community partners, already has extensive climate change and environmental education built into its general and magnet school program curriculum. However, in recognition of South Florida's increasing development pressures, climate change impacts, and sea level rise, Miami-Dade County Public Schools will work with partners to augment its K-12 curriculum with lessons, projects, and experiential learning experiences that increase understanding of the region's complex water systems and challenges. The K-12 curriculum will encourage students to imagine how we might adapt our built systems and alter the way we design cities and buildings in the future. Climate resilience and sustainability literacy will be an increasingly critical 21st century career skill not just in the GM&B region, but globally. GM&B wants to inspire the next generation to begin building the cities of tomorrow.



CASE STUDY

NONPROFITS TACKLING ENVIRONMENTAL EDUCATION

There are several nonprofit organizations in GM&B dedicated to building literacy and grassroots engagement on climate change, water impacts, and resilience. A more informed and civically engaged public will help advocate for and generate policies that strengthen communities and support residents.

Active in South Florida for over a decade, **Dream in Green (DIG)** educates individuals about environmental challenges and eco-friendly behaviors. The DIG Academy focuses on building environmental literacy and stewardship in K-12 schools through STEM curriculum alignment, developing classroom activities for teachers, and funding student-led sustainability initiatives.

Since 2010, **The CLEO Institute** has been working to educate and empower all sectors of society on climate change basics. Its signature "Climate 101" trainings have been offered in the community since 2012. Past offerings have included training tailored for municipal staff members, elected officials, and homeowners associations.

Catalyst Miami, Inc. launched its CLEAR (Community Leadership on the Environment, Advocacy, and Resilience) Miami program in the fall of 2016. CLEAR Miami increases participants' understanding of climate resilience, ways to get involved in their communities, and the intersectionality of climate, environmental, and social issues.



SPOTLIGHT

MIAMI-DADE COUNTY PUBLIC SCHOOLS

Miami-Dade County Public Schools is the fourth largest school district in the United States, composed of 392 schools, 345,000 students, and over 40,000 employees. The school district stretches over 2,000 square miles to include diverse and vibrant communities ranging from rural and suburban to urban cities and municipalities. A truly global school district, its students speak 56 different languages and represent 160 countries. Superintendent Alberto M. Carvalho has led the school district since the fall of 2008. During his tenure, the district has received state and national recognition for unprecedented increases in student achievement and graduation rates.





GOAL 2: PEOPLE



OBJECTIVE 9: COMMUNICATE THE CONCEPT OF RESILIENCE

ACTION 41: SEE IT TO BELIEVE IT

HOW THIS WILL HELP US

- ◆ Improves communication with residents
- ◆ Increases understanding of resilience
- ◆ Enhances community-based interventions
- ◆ Improves natural disaster preparedness

PERFORMANCE METRICS

- ◆ Number of organizations using the graphic visuals

KEY COLLABORATORS

LEAD: Miami-Dade County Cultural Affairs

- ◆ Knight Foundation
- ◆ City of Miami Beach

FUNDING

Public arts contest is unfunded.

TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

In the GM&B region, we want resilience to be more than a word. We seek to create a culture, behavior, and a way of being that incorporates resilience. The concept of resilience is complex— the term is wide-reaching and means different things to different people. The GM&B seeks to create an emotional understanding and connection to resilience through the arts. The region is home to a vibrant and strong artistic world, with more than 16 million people attending cultural events each year. The GM&B can build on the presence of this artistic world to increase resilience by visually and emotionally connecting with people of all ages across our diverse cultures and neighborhoods.

GM&B will support several organizations in creating visuals—infographics, photos, and short video vignettes—to explain resilience in all its facets. These visuals will be created in a form that can be easily shared through multiple channels, from social media to church programs. The content of the visual will be appropriate for multiple audiences, including governments, community organizations, schools, and other venues. The visuals will be created by local artists and will rise organically in response to local resilience challenges and solutions.

GM&B will support the work of the Miami-Dade Cultural Affairs Department to host a public art contest to provide a non-predictable, perhaps controversial view of Resilient305. The winning materials from this contest will be added to the suite of "resilience visuals" available for use throughout the GM&B region. If successful, this contest could become an annual contest. Possible funding sources may include integrating with existing funding streams for arts and culture, cultural affairs grants, tourist development grants, and local grants for placemaking.



SPOTLIGHT

THE MIAMI-DADE COUNTY DEPARTMENT OF CULTURAL AFFAIRS

The Miami-Dade County Department of Cultural Affairs and its volunteer advisory board, the Cultural Affairs Council, support cultural excellence, diversity, and participation throughout Miami-Dade County by strategically creating and promoting opportunities for our community's thousands of artists and not-for-profit cultural organizations and their audiences. The Department and Council provide grants and technical assistance to cultural organizations and individual artists; develop and improve cultural facilities; create and advance arts education, public information, and outreach programs; advocate for effective cultural policies and for more public and private resources to invest in cultural development; and promote and market our cultural





CASE STUDY

MIAMI BEACH ART IN PUBLIC LIFE RESIDENCY

The Arts South Florida has partnered with the City of Miami Beach to offer an Art in Public Life residency focused on the challenges of climate change, sea level rise, and broader resilience. Community engagement is a central element in the work of visual artist Misael Soto, who has been selected as the first artist in residence. This year-long residency has been funded by the Knight Foundation and has the potential to extend an additional year.

Through this residency, Misael has been focusing on sea level rise, its economic and social consequences, and other challenges faced by many cities in the 21st century. Misael's first installation was entitled "Sand Amphitheater, Theater, Arena." This project was located at Collins Park (2100 Collins Avenue). From October 28 through November 17, Misael brought together City staff and community volunteers to fill and build in three sections an amphitheater using over 11,000 sandbags. The installation hosted diverse programming at each stage of its construction. Programming included panel discussions on Miami Beach's history and environment, films, poetry, and music. All programming used the theme of sand as a jumping off point and lens to better understand the past and future of the city.

Misael's creative practice is engaging the community in new and innovative ways and is creating new avenues for dialogue and exchange around the challenges faced by the City of Miami Beach. Projects such as "Sand Amphitheater, Theater, Arena" bring together a diverse group of stakeholders that are engaged through active participation in the actual installation's construction and the programming.



GOAL 2: PEOPLE



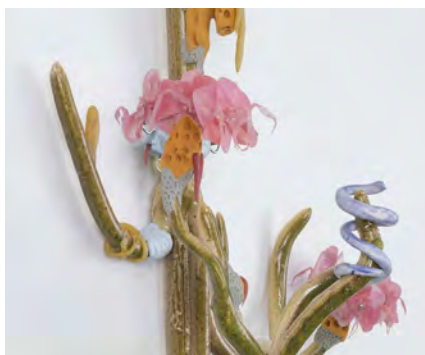
1. Holoscenes by Lars Jan. Photo: Eli Abasi



5. Terrafish by Felice Grodin. Photo: Christian Bonet



2. Holoscenes by Lars Jan. Photos by Eli Abasi



4. Diatomaceous Earth by Lee Pivnik



6. Anhinga in Calvary Cabin by Deborah Mitchell.



3. inverse condo bend by AST Collective



7. Holoscenes by Lars Jan. Photo: Eli Abasi

CLIMATE CHANGE INSPIRED ART



8. Climate Change Is Real by Andrea Bowers. Photo: Artist and Andrew Kreps Gallery.



9. Holoscenes by Lars Jan. Photo: Eli Abasi



10. Sinking Everglades by Lucinda Linderman



11. The Bubble Pops Project by Laurencia Strauss

The GM&B region is booming with arts, culture, and creative people. Many local and international artists have been inspired to create works that confront the challenges of a changing climate on our community. GM&B recognizes a few here as encouragement to artists to reach diverse audiences, advance our public discourse, and strengthen our communities.



12. Joe Browder's Snake Bite, by Deborah Mitchell.



13. National Water Dance 2018 by Dale Andree. Photo: Mitchell Zachs.

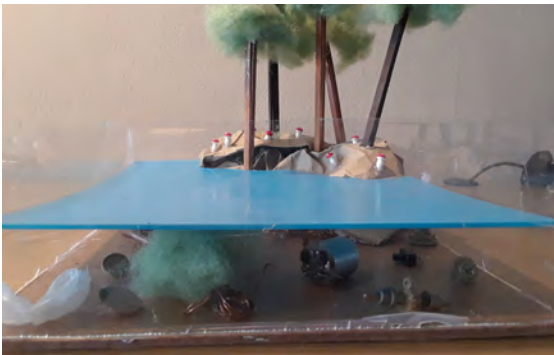


14. Underwater HOA by Xavier Cortada.
Photo: Village of Pinecrest.

CLIMATE CHANGE INSPIRED ART



15. National Water Dance 2018 by Dale Andree. Photo: Mitchell Zachs.



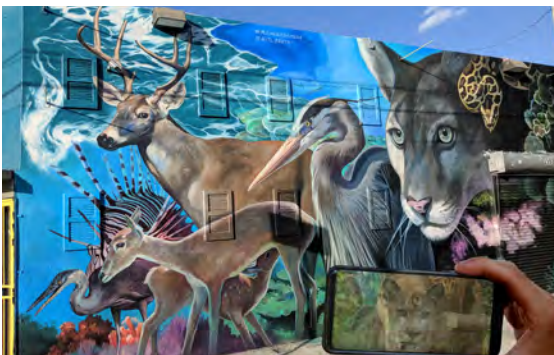
16. Water Pollution by Isabella Senatore



19. Oracle by Alexander Zastera.
Photo: Roberto LaTorre.



17. Self Portrait, Big Cypress Everglades by Simon Faithfull.



18. Anthropocene Extinction by Reinier Gamboa,
Linda Cheung. Image courtesy of Before It's Too Late.



20. Reenactment For A Future Scenario #2: Cape Romano
by Simon Faithfull. Photo: Artsail



GOAL 3: PATHWAYS

A strength of the Greater Miami & the Beaches (GM&B) region is our understanding of the power of collaboration. We have seen its success in the Southeast Florida Climate Change Compact and our joint participation in the 100RC Resilience Accelerator initiative. The actions described in the Resilient305 Strategy pave the way for increasing efficiencies among all 34 cities and county as we unite in tackling the shocks and stressors we share, from flooding to major hurricanes. The challenge is to make sure that staff and leaders across the GM&B municipalities have both an understanding of the breadth and depth of our challenges and the tools needed to address them. Through our “Pathways” actions, we aim to build the connections, collaborations, and committed leadership needed to change the status quo, enabling GM&B to become a global leader in resilience. We can achieve this by setting common goals, and committing to actions that bring together governments, businesses, and academic and community organizations.

WHO IS WHO?

THE PARTNERSHIP

Greater Miami & the Beaches
(GM&B)

THE SUPPORTING ORGANIZATION

100 Resilient Cities (100RC)

THE STRATEGY

Resilient305

THE IMPLEMENTING TEAM

PIVOT (Progress Innovation Vision
for Our Tomorrow)



GOAL 3: PATHWAYS

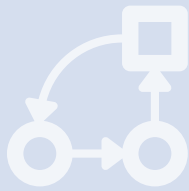
OBJECTIVO 3:
CAMINOS

OBJEKTIF 3:
WOUT



Objective 10

Pre-plan for Post-recovery



Action 42

Action 43

Action 44

Pre-Planning for Post-Disaster Toolkit

Roll-out 5-Step Guide to Innovative Recovery Financing

Bounce Forward 305 - Distribute Resilient Urban Land Use Essentials Guide

Objective 11

Cultivate Resilience Expertise



Action 45

Action 46

Action 47

Action 48

Send your Boss to Bootcamp

Resilient 35 in the 305 Network

Train Employees to be Resilient

RISE to the Rescue

Objective 12

Leverage our Experience



Action 49

Action 50

Action 51

Collaborate with Universities

Create an Actionable Science Advisory Panel (ASAP)

Resilience Accelerator Workshops



Objective 13

Develop Shared Resources

Create a Resilient305 ArcGIS Hub
Share Bold Integrated Water Models
Employ a One Water Approach
Planning Efficiently & Effectively Together

Action 52

Action 53

Action 54

Action 55



Objective 14

Leverage our Dollars

Finance a Resilient Future
Leverage the Power of Purchasing
Pilot Resilience Financing Decisions Toolkit
Demonstrate Cost Benefits of
Resilience

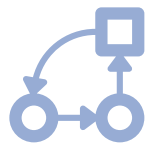
Action 56

Action 57

Action 58

Action 59





OBJECTIVE 10: PRE-PLAN FOR POST-RECOVERY

ACTION 42: PRE-PLANNING FOR POST- DISASTER TOOLKIT

HOW THIS WILL HELP US

- ◆ Streamlines government processes
- ◆ Increases understanding of resilience
- ◆ Improves natural disaster preparedness
- ◆ Attracts state and federal funding
- ◆ Expedites disaster recovery

PERFORMANCE METRICS

- ◆ Number of cities trained in the Miami-Dade County Intergovernmental Annex on Post-Disaster Recovery
- ◆ Number of cities that use the toolkit to develop Post-Disaster Plans
- ◆ Number of cities reporting faster recovery after a shock

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ City of Miami Beach
- ◆ City of Miami
- ◆ All Miami-Dade County municipalities

FUNDING

Funded by in-kind support



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Disaster recovery can be a long process with the success and timeliness of the efforts being partially dependent on quality pre-planning. Recovery efforts begin immediately after the disaster/shock, with actions and programs being set in motion, setting the stage for a long-term recovery for which the entire community is already prepared.

In 2018, GM&B developed the "Rapid Response Essentials" toolkit to foster better intergovernmental coordination for response and recovery actions. The toolkit is aligned with the County's recently updated Post Disaster Redevelopment Plan (PDRP) and is an appendix to the County's Comprehensive Emergency Management Plan. GM&B encourages cities to use the plan's guidance to analyze their capability to recover or bounce forward after a shock and, if appropriate, create their own tailored version of the toolkit.

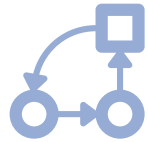
The toolkit:

- ◆ Provides awareness of what government response is and helps to clarify responsibilities
- ◆ Spells out steps to set up for a recovery process that supports a rapid bounce forward
- ◆ Creates a network of trained and prepared recovery staff
- ◆ Builds bridges to other segments of the community, including businesses and the most vulnerable
- ◆ Provides a roadmap of critical path to recovery for whole community



ACTION 43: ROLL-OUT 5-STEP GUIDE TO INNOVATIVE RECOVERY FINANCING

OBJECTIVE 10: PRE-PLAN FOR POST-RECOVERY



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Disaster preparedness is a strength of the GM&B region. The region has learned from history, having experienced disasters, but these risks have strengthened our emergency management preparation and response systems. To advance financial recovery, lessons learned from past storm events have been transformed into a simple and short 5-Steps to Innovative Disaster Financing guide to complement traditional insurance and FEMA funding for recovery in GM&B municipalities. This guide focuses on financial preparedness to recover faster after an event. Cities conventionally rely on traditional indemnity insurance and FEMA reimbursements, but this is often not enough to cover all the damages and service needs. It is also cumbersome and often takes too long. The guide describes a cohesive interdisciplinary team approach to examine current insurance coverage, financial risk, bond ratings, and economic drivers. The guide includes a list of financing options for recovery, and their benefits and drawbacks. The guide also provides information about parametric insurance, prepared by SwissRe, a 100RC Platform Partner. The Government Finance Officers Association of the United States and Canada (GFOA) will expand the use of the 5-Steps Guide with its member cities, highlighting it as a resource and topic for conferences.



SPOTLIGHT

Government Finance Officers Association

The GFOA, founded in 1906, represents public finance officials throughout the United States and Canada. The association's more than 20,000 members are federal, state/provincial, and local finance officials deeply involved in planning, financing, and implementing thousands of governmental operations in each of their jurisdictions. GFOA's mission is to advance excellence in state and local government financial management and it has accepted the leadership challenge of public finance. To meet the many needs of its members, the organization provides best practice guidance; consulting; networking opportunities; publications, including books, e-books, and periodicals; recognition programs; research; and training opportunities for those in the profession.



HOW THIS WILL HELP US

- ◆ Streamlines government processes
- ◆ Improves financial planning
- ◆ Attracts state and federal funding
- ◆ Expedites disaster recovery

PERFORMANCE METRICS

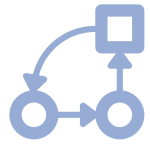
- ◆ Number of cities reporting using resource
- ◆ Change in municipality financial coverage

KEY COLLABORATORS

LEAD: Government Finance Officers Association of the United States and Canada

FUNDING

Unfunded



OBJECTIVE 10: PRE-PLAN FOR POST-RECOVERY

ACTION 44: BOUNCE FORWARD 305 - DISTRIBUTE RESILIENT URBAN LAND USE ESSENTIALS GUIDE

HOW THIS WILL HELP US

- ◆ Improves public realm
- ◆ Increases understanding of resilience
- ◆ Streamlines government processes
- ◆ Improves natural disaster preparedness

PERFORMANCE METRICS

- ◆ Number of GM&B municipalities reporting using the guide
- ◆ Number of GM&B municipalities updating planning documents/ordinances

KEY COLLABORATORS

LEAD: GM&B

- ◆ Gold Coast Chapter of American Planning Association
- ◆ Miami-Dade County Planners Technical Committee
- ◆ Miami-Dade County School Board Staff Working Group
- ◆ Local municipal planning and land use boards

FUNDING

None needed



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

The Resilient Land Use Essentials Guide was developed during Resilient305 Strategy development phase. It is a guide for governments and other urban stakeholders in the GM&B region that contains recommendations for land use actions that local governments can implement before a disaster to facilitate post-disaster recovery and potentially minimize negative impacts, particularly in the face of climate-induced flooding and sea level rise. In this context, land use planning refers to rules and guidelines governing the disposal of public and private land to promote the physical security of urban communities. The guide is intended for every city planner, with notice to the city manager and emergency manager. GM&B lead planners will share, present, and facilitate dialogue at local collaborating venues.



ACTION 45: SEND YOUR BOSS TO BOOTCAMP

OBJECTIVE 11: CULTIVATE RESILIENCE EXPERTISE



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Plans and strategies tend to sit on the shelves unless they are operationalized and actively put into use. It is critical for all 34 GM&B cities and the county to be motivated to adopt resilience policies at the governance level, and take action at the staff operational level. To accomplish this, Miami-Dade County will collaborate with GM&B partners to host an intensive 1-day workshop every January for the next 3 years. The boot camp is geared to newly elected and re-elected local municipal elected officials and is intended to grow our leadership commitments beyond mayors. Participants will be introduced to theory and practice of the Resilience Accelerator approach. They will be coached by experts and inspired by 100RC network mayors experienced in implementing strategies. Local and regional resources will also be shared. Participants will leave with the tools, tips, tricks, and relationships to operationalize the Resilient305 Strategy and support their CROs in action and implementation. Participating cities that commit to creating or identifying a CRO in their city would be able to participate in Action 46: Resilient 35 in the 305.

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of elected officials participating in Bootcamp annually
- ◆ Percent GM&B municipalities participating in Bootcamp annually
- ◆ Number of GM&B municipalities with CRO

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B

FUNDING

Initial in kind support from GM&B and The Miami Foundation with participating cities providing in-kind support after participation



GOAL 3: PATHWAYS



OBJECTIVE 11: CULTIVATE RESILIENCE EXPERTISE

ACTION 46: RESILIENT 35 IN THE 305 NETWORK

HOW THIS WILL HELP US

- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Improves water quality
- ◆ Improves natural disaster preparedness
- ◆ Improves community cohesion
- ◆ Increases understanding of resilience
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of cities active in the network/year
- ◆ Number of multi-city resilience projects established
- ◆ Number of cities with CRO
- ◆ Number of peer learning exchanges by end of 2020

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ All municipalities within Miami-Dade County
- ◆ Urban Sustainability Directors Network
- ◆ Southeast Sustainability Directors Network
- ◆ Florida Sustainability Directors Network

FUNDING

Within existing GM&B municipalities' budgets

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Miami-Dade County will catalyze the resilience work across Miami-Dade County by providing peer exchange and connecting local government practitioners through the planned Resilient 35 in the 305 Network. The 305 Network will facilitate intergovernmental collaborative work among practitioners by enhancing and supporting the sharing of communication and resources between cities in Miami-Dade County to advance resilience work. The 305 Network will support its member cities in their resilience work, develop multi-city collaboration projects, influence the development of policies at the local and regional level, and build a network of trusting relationship between peers. To participate in the 305 Network, cities commit to creating a CRO position or identifying a person responsible for CRO duties.

305 Network members will be able to transfer knowledge learned from their peers to their own work and thereby synergistically advance resilience within their municipality. Through the 305 Network, GM&B municipalities will be able to leverage resources to become better prepared to overcome the shocks and stressors the region faces. For example, the City of Miami Beach has made significant strides in stormwater management, land use changes, and creative procurements. The City's lessons learned and resulting products will be made available to 305 Network member cities to modify and inspire their own work. By participating in this local network, including the elected official bootcamp (Action 45, Send your boss to bootcamp) and the online training, GM&B municipalities in the GM&B region are truly making strides towards resilience.



SPOTLIGHT

LOCAL MITIGATION STRATEGY

Miami-Dade County's Local Mitigation Strategy (LMS) is a whole-community initiative designed to reduce or eliminate the long-term risk to human life and property from hazards. Established over two decades ago, the LMS is a comprehensive approach to effectively reduce the impact of current and future hazards and risk faced by communities within Miami-Dade County. The LMS is a compendium of efforts of the whole community, integrating governmental and non-governmental agencies such as non-profit, private sector, educational and faith-based organizations as well as communities, families and individuals.

In addition to preparing residents for the potential impacts of various types of natural hazards, the LMS is critically important because it satisfies Miami-Dade County's mitigation plan requirement under Section 322 of the Stafford Act as enacted under the Disaster Mitigation Act of 2000 and enables all jurisdictions that participate in the LMS to be eligible for federal hazard mitigation grants in the event of a declared disaster. To remain current and vital, the LMS is updated annually and the LMS Committee holds four meetings yearly. Additionally, the LMS plan undergoes a complete state and federal review and approval every 5 years by Florida's Department of Emergency Management and FEMA, and is ultimately adopted by local elected officials.





ACTION 47: TRAIN EMPLOYEES TO BE RESILIENT

OBJECTIVE 11: CULTIVATE RESILIENCE EXPERTISE



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

For some occupations, such as a CRO or an Emergency Manager, resilience is the essence of the job. For many others, resilience adds a new way of thinking, a new lens to examine existing work and service delivery. The City of Miami Beach will pilot online resilience training for all employees and make the material available to the GM&B municipalities to enable them to adapt it to their own training programs.

By using eLearning platforms, cities can create custom learning experiences that engage learners through interactivity and collaboration. These systems are available 24 hours a day, 7 days a week, 365 days a year for any department and any shift. Effective rollout will include determining which courses are appropriate for learners. The City of Miami Beach will work with experts to develop content and build courses that may include a PowerPoint presentation, video vignettes, and/or a mastery component. Each government entity can further customize the resilience training with city-specific information and can work with their internal training coordinators to determine who will be required to take the courses, assign them through the eLearning platform, and determine the frequency of the refreshers.

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of employees trained annually
- ◆ Number of entities implementing the training

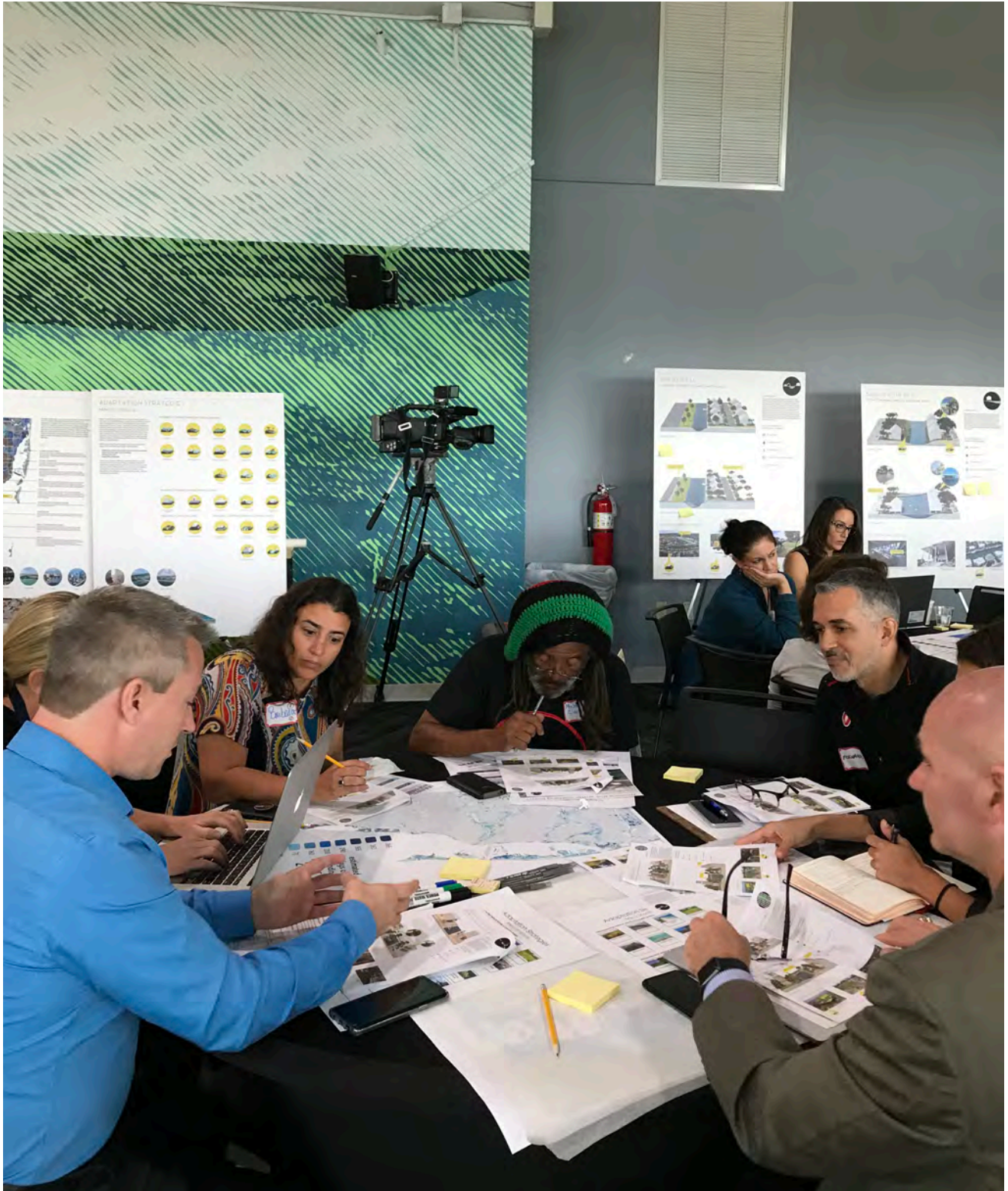
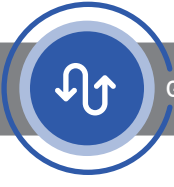
KEY COLLABORATORS

LEAD: City of Miami Beach

- ◆ Miami-Dade County

FUNDING

Partially funded by in-kind services and participating cities



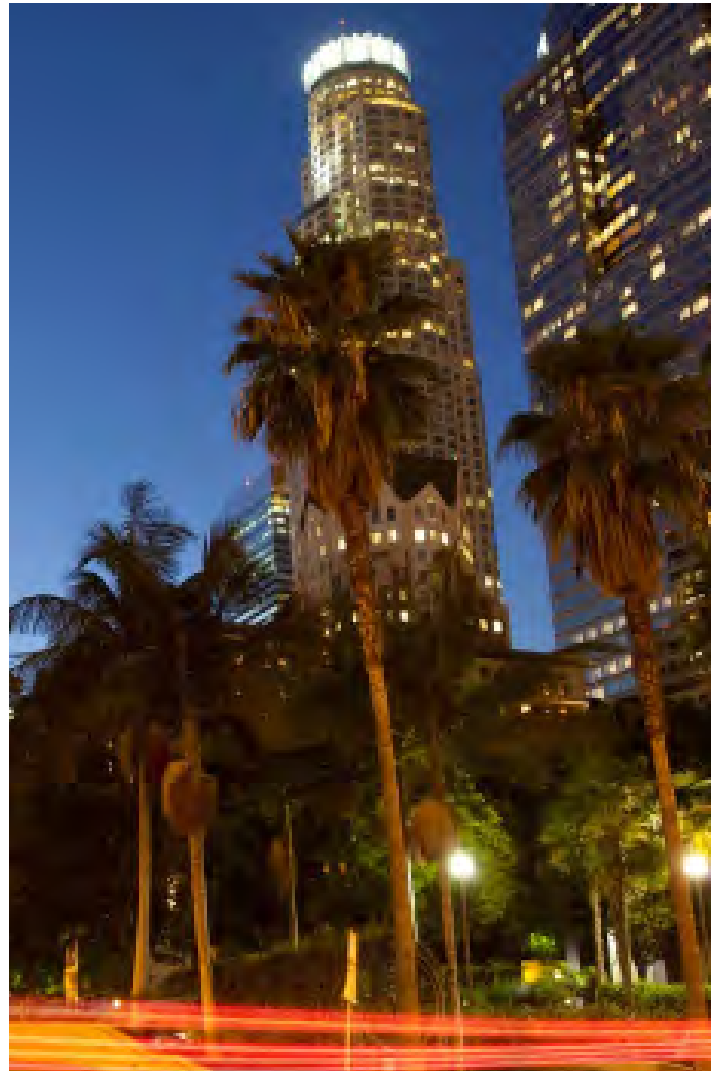


CASE STUDY

100RC TRAINING FOR LOS ANGELES

As part of the effort to spread the impact of Resilient Los Angeles and to implement its priority initiatives, Los Angeles Mayor Eric Garcetti signed an executive directive instructing many City departments to designate Departmental Chief Resilience Officers (DCROs) who are tasked with integrating resilience priorities across each arm of City operations, programs, and policy. With its diversity in expertise and thematic interest, this group is a critical resource for mainstreaming resilience thinking in Los Angeles. By significantly expanding the number of resilience champions in Los Angeles and paving the way for new kinds of cross-departmental partnerships on resilience initiatives, the group also sits at the forefront of Resilient Los Angeles implementation.

To support these efforts, 100RC partnered with the City of Los Angeles to conduct in-depth collaboration sessions for the DCROs in November 2018, focused on project financing and frameworks for implementation and evaluation to further advance resilience work. The interactive workshop not only equipped the DCROs with new methods and tools to design and implement projects with resilience benefits, but also empowered them to directly apply these practices with the aim of building resilience capacity among departmental staff and City stakeholders.





OBJECTIVE 11: CULTIVATE RESILIENCE EXPERTISE

ACTION 48: RISE TO THE RESCUE

HOW THIS WILL HELP US

- ◆ Improves communication with residents
- ◆ Improves community cohesion
- ◆ Enhances community-based interventions
- ◆ Increases understanding of resilience

PERFORMANCE METRICS

- ◆ Number of RISE Guide downloads
- ◆ Number of GM&B municipalities using RISE Guide

KEY COLLABORATORS

LEAD: Municipal employees, contractors, and university students

FUNDING

GM&B municipalities may prioritize with existing funds

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

How we communicate the needs of more complex projects both planned and underway in the GM&B region is paramount to gaining public support and engagement. GM&B municipalities will leverage the City of Miami Beach Resilient Integrated Strategic Engagement (RISE) Guide to ensure strong and consistent messaging that increases awareness and helps shape the narrative around resilience. The purpose of this action is to provide cities with new tools and resources to engage and dialogue with the communities of today about the vision for tomorrow. Communicating purpose, customizing products, and coordinating processes are the basis of a core framework that any city can use.

The City of Miami Beach created its RISE Guide out of a need for consistent and transparent city messaging surrounding the Miami Beach Rising Above stormwater and climate resilience programs. Cities can tailor this guide for their own use. The facts, tips, and training in the RISE Guide will empower staff in community dialogue, improving the public's trust and faith in city adaptation actions. Tools like the RISE Guide are essential to break down silos, build knowledge of resilience, and arm communicators and all departments with the information they need to speak with the community.



SPOTLIGHT

UNIVERSITY OF MIAMI

A graduate student intern attending the University of Miami School of Education and Human Development Community and Social Change Master's Program developed the guide based on models and theories from the field of community psychology. Community psychology focuses on social, cultural, economic, political, environmental, and historical influences to positively impact local communities at a systems level, not just the individual level.





ACTION 49: COLLABORATE WITH UNIVERSITIES

OBJECTIVE 12: LEVERAGE OUR EXPERIENCE



Photo Credit: FIU

TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B will challenge the spirit of innovation by enhancing its ongoing partnership with universities and industry experts to develop creative solutions to technical problems. GM&B will leverage research and expertise from local and regional academic institutions—such as Florida International University, Miami-Dade College, and the University of Miami—to help prepare for and address current and future shocks and stressors via a university collaborative. These institutions are committed to collaborating to move resilience forward with GM&B, which will foster a community-owned approach to adaptation measures and mitigation efforts. These institutions have research expertise in addressing 21st-century problems, such as housing, climate resilience, and transportation, and are seedbeds for innovative solutions to these challenges. The collaborative will work with the PIVOT Team to identify research priorities and will be convened yearly by the PIVOT Team to share and give updates on ongoing research and projects related to shocks and stressors.

These institutions have a history of collaboration with GM&B under a MetroLab agreement activated in 2017 to address the Zika outbreak. MetroLab is a City + University Collaborative for Urban Innovation and drives partnerships between local governments and universities to help the public sector adapt to rapid technology change.

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience
- ◆ Streamlines government processes
- ◆ Improves industry/job diversification

PERFORMANCE METRICS

- ◆ Number of projects developed in collaboration with universities and colleges
- ◆ Dollars received by partners to fund collaborative projects

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Florida International University
- ◆ Miami-Dade College
- ◆ University of Miami
- ◆ Florida Climate Institute

FUNDING

Partially funded through GM&B staff time and university research grants



OBJECTIVE 12: LEVERAGE OUR EXPERIENCE

ACTION 50: CREATE AN ACTIONABLE SCIENCE ADVISORY PANEL (ASAP)

HOW THIS WILL HELP US

- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Reduction in sunny day flooding
- ◆ Reduces stormwater flooding
- ◆ Attracts state and federal funding
- ◆ Increases understanding of resilience

PERFORMANCE METRICS

- ◆ Number of ASAP provided climate updates
- ◆ Number of experts regularly participating on ASAP

KEY COLLABORATORS

LEAD: Florida International University, Sea Level Solutions Center

- ◆ Southeast Florida Regional Climate Change Compact
- ◆ Florida Climate Institute and Other Academic Institutions in Southeast Florida
- ◆ South Florida Water Management District

FUNDING

Unfunded

TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Science is complex, evolving, and critical in adapting to sea level rise and climate change. Florida International University's Sea Level Solutions Center will lead an Actionable Science Advisory Panel (ASAP) to make it easier for GM&B municipalities to use the best available science to inform planning and decision making associated with resilience efforts at the local government level.

ASAP's priority will be to provide data driven recommendations and best available science on locally appropriate standards and projections regarding future rainfall and temperature patterns, sea level rise, and groundwater levels. These projects are particularly important to the GM&B region because of the anticipated effects of climate change on regional hydrology and water management systems. ASAP will also be an ad-hoc resource to GM&B, helping to support Action 53: Share Bold Integrated Water Models made up of GM&B municipalities working in the modelling and infrastructure fields. ASAP will include interdisciplinary experts from multiple universities and colleges. ASAP's work will coordinate with and complement the work of the Southeast Florida Climate Change Compact and the Florida Climate Institute.

This action is derived from the Urban Land Institute's examination of City of Miami Beach's stormwater program, which resulted in suggestions that local science be used to provide recommendations about strategies and investments from a 30- to 70-year horizon. The Urban Land Institute also recommended new strategies for benchmarking to accommodate increased future risk and the changing climate.



SPOTLIGHT

FIU SEA LEVEL SOLUTIONS CENTER

The FIU Sea Level Solutions Center is a hub for international research, collaboration, education, communication, and outreach. Working with experts around the world, the Center develops useful sea level responses while collaborating with those on the ground to meet real-time needs. It provides support, leadership, personnel, and researchers who have significant international, national, regional, and local relationships. GM&B partners have a strong existing relationship with the Center and it is that strong relationship—combined with GM&B's sense of urgency—that will make ASAP a valuable tool for GM&B local governments.





ACTION 51: RESILIENCE ACCELERATOR WORKSHOPS

OBJECTIVE 12: LEVERAGE OUR EXPERIENCE



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B will commit to seeking resources—together with its university, nonprofit and corporate partners—to continue hosting resilience accelerator workshops. These workshops advance innovation and a holistic and inclusive approach to defining and implementing affordable housing and climate adaptation projects.

In August 2018, 100RC and Columbia University Center for Resilient Cities and Landscapes hosted a 3-day Resilience Accelerator workshop. Each participating jurisdiction selected a resilience project that faced a complex path towards implementation, such as aligning stakeholder and inter-agency interests or integrating engineering, land use, and public/private financing solutions. The objective was to improve the resilience value of each project while challenging the people and institutions delivering those projects to be more holistic, anticipatory, reflective, innovative, and radically action-oriented in their work. Each jurisdiction had an 8-10 member team with a mix of staff and outside experts. Each project team also had a facilitator and a visual facilitator to help guide the conversation and capture progress. The workshop began with an open session where the public and broader stakeholders were invited to learn about the projects and provide their input. Public, elected leaders, and key stakeholders were also invited at the end of the workshop to learn about the outcomes.

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience
- ◆ Improves communication with residents
- ◆ Improves community cohesion
- ◆ Streamlines government process
- ◆ Reduces duplication of services

PERFORMANCE METRICS

- ◆ Number of resilience accelerator workshops held biannually

KEY COLLABORATORS

LEAD: GM&B

- ◆ University Partners
- ◆ Private-Sector Partners
- ◆ Nonprofit partners

FUNDING

Unfunded

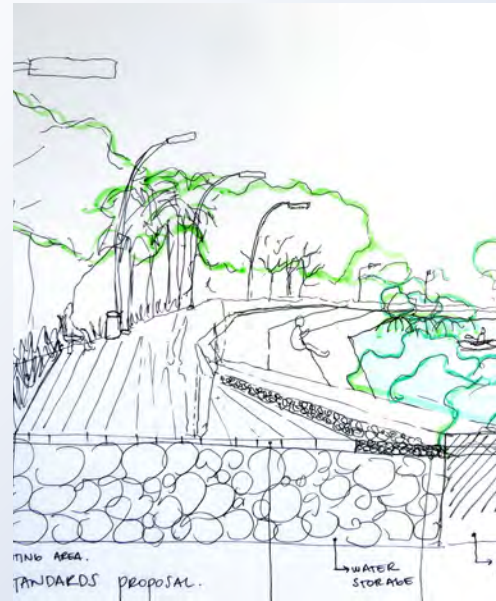
CASE STUDIES

RESILIENCE ACCELERATOR - BRICKELL BAY DRIVE

The Brickell Bay Drive Accelerator was a 3-day workshop focused on the protection and adaptation of essential economic, natural, and human resources of the waterfront. Realizing the vulnerability to sea level rise, storm surge, and other challenges, the City of Miami selected the Brickell Bay Drive project as a demonstration project to incorporate more resilient design into waterfront standards. The scope of the project was increased through the IOORC Resilience Accelerator workshop held in August 2018.

The waterfront design standards addressed included: 1) accessibility and livability, 2) environmental enhancement, 3) risk reduction, 4) economy and tourism and 5) history and culture. The goal of the project was to improve flood and surge protection while still providing water access, and to improve public greenspace and connectivity while encouraging multimodal transportation options.

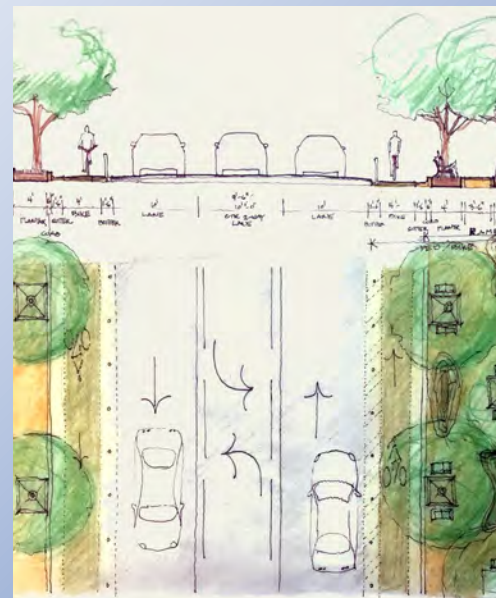
Key city departments and local and national experts participated and helped identify challenges as well as available resources. The project was made possible through the Brickell Adaptation Action Area, which allowed for more innovative design, and funding through the Miami Forever Bond. It was intended to serve as a model to update waterfront standards across the City and to provide an approach to public-private financing for construction and maintenance.



RESILIENCE ACCELERATOR – WEST AVENUE

The West Avenue Resilience Accelerator was a 3-day workshop focused on addressing aging infrastructure while mitigating the impact of sea level rise. In conjunction with IOORC and Columbia University, the workshop brought together multidisciplinary expertise to provide guidance on urban design, innovative engineering solutions, and stakeholder engagement.

The workshop focused on process and design based on current and future environmental challenges, while considering costs and benefits. Throughout the workshop the City of Miami Beach team tested and evaluated elements of the West Avenue Project to develop modifications that enhance the projects resilience and build community consensus, while remaining fiscally responsible. As a result, the team identified appropriate enhancements based on the project's lifecycle, existing and future site challenges, and feedback from the local community.





CASE STUDIES

RESILIENCE ACCELERATOR – SOUTH CORRIDOR TRANSIT HUBS

The South Corridor Transit Hubs Resilience Accelerator was a 3-day workshop focused on developing concept design for a transportation hub along the south corridor of the Miami-Dade County SMART Plan. In conjunction with IOORC and Columbia University, the workshop focused on design guidelines for a proposed transportation hub pilot at the intersection of SW 211th Street and U.S. Highway 1. Experts who participated in the accelerator ranged from a specialist in transit-oriented design and planning to an expert in affordable housing and an expert in pedestrian networks and parks. As part of this workshop, four overarching goals for transportation hubs were established: Adapt to change, prepare and protect communities, enhance multi-modal sustainable mobility, and reduce disparities. The experts outlined a mix of policy, programming, and capital improvements that can be made to achieve those goals. Because of this workshop, design concepts for transit hubs and first/last mile connections between the SMART Plan corridors and the regional non-motorized trail system (SMART Trails Master Plan) were developed.



RESILIENCE ACCELERATOR – MILITARY TRAIL HOMES

Palm Beach County, a member of the Southeast Florida Climate Change Compact, was invited to participate in the Resilience Accelerator workshop as a way to extend the resources and benefits of this program to the greater southeast Florida Compact region. This Accelerator focused on developing resilient, dignified cottage homes to promote self-sufficiency and inspire future small-scale affordable housing to fulfill a vital need. The Military Trail Homes sit along an abandoned site on the SR 809 highway running through Palm Beach County. Key questions addressed during the accelerator were: (1) What innovative design solution can create a welcoming community for extremely low- and low-income people in a car-oriented commercial strip? And (2) How can this low-cost, small-footprint housing provide a model for developing other types of housing in the region? The accelerator began by identifying the top shocks and stressors that the future housing development needs to consider: an opioid epidemic, economic instability, extreme heat, mobility challenges, potential violence, and prioritizing housing for single mothers. The guiding principles developed and shared at the workshop included requests for proposals for a resilient traditional housing scheme.





GOAL 3: PATHWAYS



OBJECTIVE 13: DEVELOP SHARED RESOURCES

ACTION 52: CREATE A RESILIENT305 ARCGIS HUB

HOW THIS WILL HELP US

- ◆ Improves communication with residents
- ◆ Increases understanding of resilience
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of Hub users
- ◆ Number of GM&B municipalities participating in Hub

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ GM&B
- ◆ GM&B municipalities

FUNDING

Partially funded via Miami-Dade County staff time. Update of ArcGIS Hub post-launch is unfunded



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

GM&B will work with Miami-Dade County to create a Resilient305 data-driven initiative on ArcGIS Hub. This cloud-based platform will be an opportunity to share open data, interact with users, and to provide progress updates on action items in the Resilient305 Strategy with local governments and the community at large. GM&B municipalities will have the opportunity to request access to the latest resilience data and create their own initiatives, facilitating data sharing and improving intergovernmental collaboration. The ArcGIS Hub will also create an opportunity to help keep the general community updated on the progress of the Resilient305 Strategy.

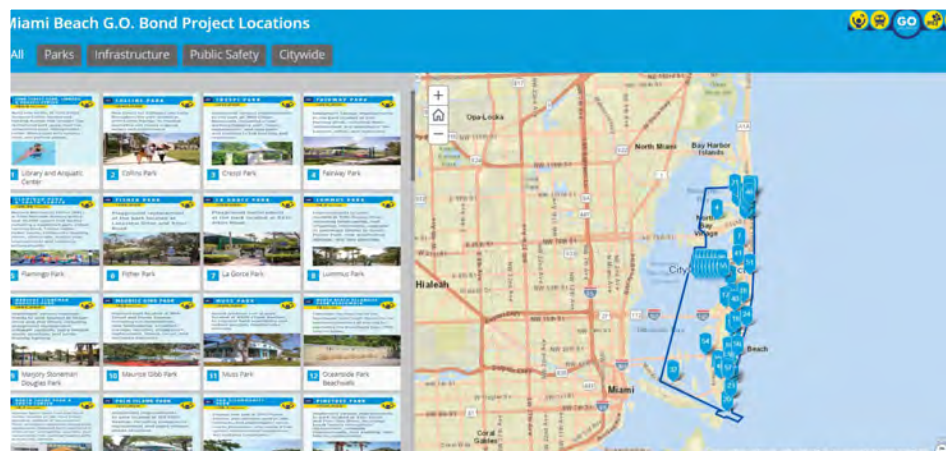
To help launch the Resilient305 actions, the GM&B team will create an advisory group of potential municipal representatives and community members to help set expectations for the initiative, inventory existing data, and advise creation of materials and data for the Resilient305 ArcGIS Hub.



CASE STUDY

CREATE VISUALLY ENGAGING STORY MAPS TO COMMUNICATE RESILIENCE GOALS

Story maps are highly versatile tools that can be easily shared via social media and can be readily adapted to address any number of themes. Miami-Dade County has begun developing story maps to help visualize data and communicate various resilience challenges with the community. By collaborating with subject matter experts and GIS professionals, the County has been able to effectively demonstrate sea level rise as well as showcase what projects are underway to address the flooding. A second story map was developed to analyze both where to site transit stations and how stations could be reimagined to also serve as community resilience hubs, offering multiple public services and providing civic spaces. GM&B will continue to work with its partners to help tell its resilience stories using this new digital tool.





OBJECTIVE 13: DEVELOP SHARED RESOURCES

ACTION 53: SHARE BOLD INTEGRATED WATER MODELS

HOW THIS WILL HELP US

- ◆ Reduces duplication of services
- ◆ Streamlines government processes
- ◆ Reduces stormwater flooding
- ◆ Reduces sea level rise and coastal flooding impacts
- ◆ Reduction in sunny day flooding
- ◆ Increases understanding of resilience

PERFORMANCE METRICS

- ◆ Number of resources shared

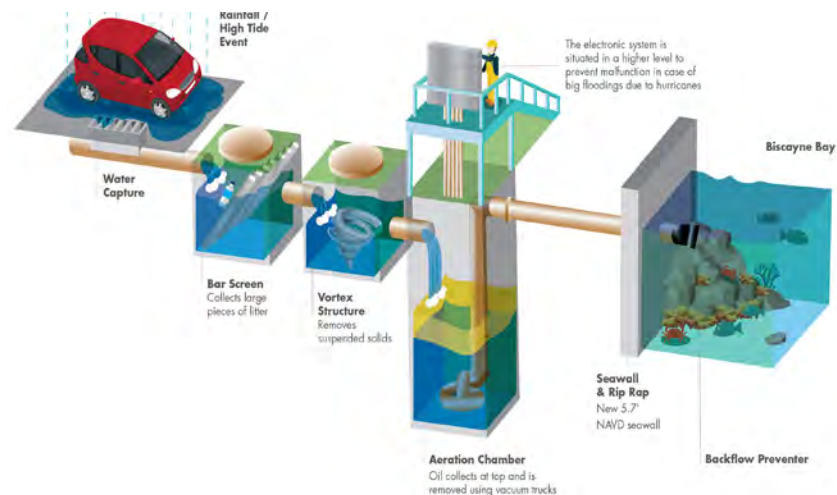
KEY COLLABORATORS

LEAD: Miami-Dade County + The City of Miami Beach

- ◆ GM&B municipalities

FUNDING

Unfunded



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B is at the forefront of climate change innovation, especially related to flood management. The Urban Land Institute, in its examination of the City of Miami Beach's stormwater program, commended the City for making a "courageous start to combat sunny day flooding...for its timely action, investment in physical infrastructure, identification of self-funding sources, and a decision to include sea-level rise and increased precipitation in planning." To build on lessons learned and improve consistency across its GM&B municipalities, GM&B will spearhead implementation of a step-by-step approach to hydrodynamic computer modeling developed by AECOM; this action will involve all GM&B municipalities. Steps include inventorying current efforts and moving towards developing shared data; improving assumptions for sea level rise, rainfall, and groundwater; and compiling a library of modeling efforts. By working together with its GM&B municipalities, GM&B can make complex water modeling for infrastructure planning better, faster, and cheaper for GM&B municipalities through collaboration and enhanced tools.

Flood management is incredibly complex and using integrated hydrodynamic computer modeling is an action that will benefit the entire GM&B region. GM&B municipalities can build on existing data and work completed, reducing duplication of efforts and saving time and money. Routine meetings to build knowledge and relationships are key to understanding how to use these data. This modeling effort will result in decreased modeling costs and faster construction of capital projects based on modeling outcomes. The products of this action will include a centralized data repository and a library of models to help understand scenarios, assumptions, limitations, boundary conditions, and when to use them. To kick off this action, GM&B will create a sample resolution with an interlocal agreement to be adopted by participating cities. This resolution should include a municipal commitment and funding model to move forward with this action.



ACTION 54: EMPLOY A ONE WATER APPROACH

OBJECTIVE 13: DEVELOP SHARED RESOURCES



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

One of the goals for improving water resilience for GM&B is to move towards a “One Water” approach, which was detailed by the U.S. Water Alliance publication, One Water Roadmap: The Sustainable Management of Life’s Most Essential Resource, published in 2016. As one of five global cities selected by The Rockefeller Foundation to help develop the international City Water Resilience Approach, GM&B will use the City Water Resilience Approach to assess the resilience of its County-wide water supply and water infrastructure. The challenges and gaps to resilience will be identified and those results will be used to identify and develop indicators for a more resilient water supply and management system, improve interagency collaboration on water issues, and develop and implement a One Water Resilience Action Plan.

The One Water framework states that “all water has value and should be managed in a sustainable, inclusive, and integrated way.” This is particularly true in southeast Florida, where, due to the porous limestone geology, hydrology, and climate of the region, water resources are intricately connected and highly managed to provide for water supply, flood protection, and other needs. The City Water Resilience Approach will also serve to improve collaboration and coordination on water issues, which meets the interests expressed by numerous stakeholders during the Resilient305 Strategy development phase.



SPOTLIGHT

RESILIENT UTILITY COALITION

The Resilient Utility Coalition (RUC) was created to advance utility infrastructure resilience efforts. Partners from public utilities, private industry, and academia are working together to operationalize policies/practices and build capacity among operators and partners in making our systems more resilient to hurricanes, infrastructure failure, increased precipitation, sea level rise, and saltwater intrusion. By operationalizing resilience through interdisciplinary and integrated planning, RUC is improving water quality, public health, and its use of resources with responsible investments. RUC was born in South Florida, inspired by the Southeast Florida Climate Compact, and nurtured by the 100RC network.



HOW THIS WILL HELP US

- ◆ Streamlines government processes
- ◆ Increases understanding of resilience
- ◆ Reduces sea level rise and coastal flooding impacts

PERFORMANCE METRICS

- ◆ Publish Water Resilience Action Plan

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Resilient Utility Coalition
- ◆ Florida Department of Environmental Protection
- ◆ South Florida Water Management District
- ◆ U.S. Army Corps of Engineers

FUNDING

Partially funded by the Rockefeller Foundation



OBJECTIVE 13: DEVELOP SHARED RESOURCES

ACTION 55: PLAN EFFICIENTLY & EFFECTIVELY TOGETHER

HOW THIS WILL HELP US

- ◆ Reduces duplication of services
- ◆ Replaces aging infrastructure
- ◆ Streamlines government processes
- ◆ Improves financial planning

PERFORMANCE METRICS

- ◆ Number of projects identified for improved coordination
- ◆ Dollars saved from coordinated or combined projects
- ◆ Number of violations of Miami-Dade County's Pavement Moratorium

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ Local utilities
- ◆ GM&B municipalities

FUNDING

Partially funded by Miami-Dade County



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Significant efficiencies and cost-savings can be achieved with better planning and coordination of capital projects. Miami-Dade County will spearhead an effort to improve intra- and inter-agency communication and coordination on planning and implementation of utility and other capital projects. This effort will build upon existing coordination of capital projects between the Miami-Dade Department of Transportation & Public Works (DTPW), the Miami-Dade Water & Sewer Department (MDWASD), and utility companies, as well as existing quarterly meetings of intra- and inter-agency utility and infrastructure staff. It will also take advantage of existing technology and software platforms, such as the iWASD open source GIS data hub, which reports on the status of construction and permitting projects. Initial steps will include broadening the scope and participation of the meetings and providing training and assistance on the iWASD platform to improve the use of this helpful data source. Miami-Dade County, led by MDWASD, is also implementing e-Builder, a role-based enterprise management tool that will assist County Departments in managing capital improvement and development project lifecycles and business processes. The e-Builder system will serve as a project control tracking system, integrated across departments for efficient and coordinated delivery of capital improvements.

Additionally, Miami-Dade County has taken steps that can be used as a foundation to better coordinate and inform GM&B municipalities and other agencies. For example, a Utility Round Table was established in October of 2013 by the Miami-Dade Division of Environmental Resources Management (DERM) as an effective forum for information exchange among utilities, design professionals, and regulators to improve communication, coordination, and feedback between the County and stakeholders, and to provide updates on existing and proposed regulations, policies, and procedures. Multiple benefits can be gained through improved coordination on capital projects including reduced disruptions, increased efficiencies and economies of scale, and reduced violation of the County's Pavement Moratorium.



SPOTLIGHT

SOUTHEAST FLORIDA CLIMATE CHANGE COMPACT

Southeast Florida has a young but rich history in regional collaboration to tackle complex issues. In the fall of 2009, about 100 leaders in the region convened the first annual climate leadership summit. By early 2010 each county—Palm Beach, Broward, Miami-Dade and Monroe—approved a simple yet powerful resolution committing to the Southeast Florida Climate Change Compact to work in earnest on climate change adaptation and mitigation efforts. The Compact staff steering committee is composed of county and municipal partners, as well as the South Florida Water Management District and TNC. With support from the Kresge Foundation and the Institute for Sustainable Communities, the Compact has produced many important resources for local governments including the unified sea level rise projections, a regional greenhouse gas baseline, two regional climate action plans, annual legislative priorities, extensive training opportunities, and 10 annual summits (with attendance surpassing 700 in 2018 at the Miami Beach Convention Center). This model of regional collaboration has been the source of inspiration to many other regional collaboratives from as far away as Durban, South Africa, to as close as our friends in Central Florida and the Tampa Bay area. Learn more at: <http://www.southeastfloridacclimatecompact.org/>.





GOAL 3: PATHWAYS



OBJECTIVE 14: LEVERAGE OUR DOLLARS

ACTION 56: FINANCE A RESILIENT FUTURE

HOW THIS WILL HELP US

- ◆ Improves financial planning
- ◆ Increases understanding of resilience
- ◆ Streamlines government processes
- ◆ Attracts state and federal funding

PERFORMANCE METRICS

- ◆ Number of online hits of guide
- ◆ Number of GM&B municipalities assigning budget to resilience initiatives
- ◆ Outcome: Identification of implementation funding in GM&B budgets to advance Resilient305 objectives

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ City of Miami Beach
- ◆ City of Miami

FUNDING

Partially funded by Miami-Dade County



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

The success of a resilient budget depends on a diversified economy that reduces the impact of a financial shock, the flexibility to reallocate funds to critical projects that address shocks when needed, and allocation of funds that prioritize resilience objectives across departments. GM&B will identify and recommend funding in each entity's budget towards the implementation of Resilient305 objectives that reflect these success factors. To augment this initiative, GM&B will create an online guide and reference materials for other governments and agencies who wish to incorporate and prioritize resilience objectives in their budgets and strategic plans.

Leading by example, Miami-Dade County continues to organize its multi-billion dollar budget around the four dimensions of IOORC's City Resilience Framework: health and wellbeing, economy and society, infrastructure and environment, and leadership and strategy. The County's current FY 2018-19 Budget and Multiple Year Capital Plan includes specific references to operating expenditures and capital projects targeted towards resilience efforts. In FY 2019-20, the County will further prioritize resilience objectives by restructuring its strategic plan around the Framework's four dimensions and will establish a resilience accelerator program to support financing of resilience projects in the GM&B region.

The GM&B Resilient305 Strategy development phase gave the City of Miami Beach the opportunity to update its strategic plan through the lens of resilience. The City is increasing the resilience impact of capital projects through integrated planning and is also evolving traditional government services to plan for resilience shocks and stressors.

Resilience and innovation are cross cutting themes in the City of Miami's updated strategic plan, and priorities and actions identified during the GM&B Resilient305 Strategy development phase will be integrated into that plan. The City's interdepartmental Resilience Action Group is charged with implementing that strategy.



ACTION 57: LEVERAGE THE POWER OF PURCHASING

OBJECTIVE 14: LEVERAGE OUR DOLLARS



TIMEFRAME: IMMEDIATE (0-1 YEAR)

DESCRIPTION

Municipal purchasing can be a game changer in facilitating innovative solutions to societal challenges. Every year, local governments spend millions of taxpayer dollars procuring municipal goods and services. GM&B will arm local purchasing managers with tools and training to modernize local government procurement to address shocks and stressors, thereby accelerating efforts in resilience building. Procurement officials will learn how to change language in city solicitations to ensure that consultants not only understand stressors, shocks, and climate vulnerabilities, but also know how to address these matters in the most innovative ways possible.

Steps include creating a baseline inventory of resilient procurement policies throughout the cities within Miami-Dade County. A database of innovative procurements, tools, and practices will be created for GM&B municipalities to access. Recent creative examples from the City of Miami Beach include the development of design guidelines for historic properties in the face of sea level rise and an economic analysis of the stormwater program. Finally, a local platform for training opportunities will be created through the local National Institute of Government Purchasing (NGIP).

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience
- ◆ Streamlines government processes

PERFORMANCE METRICS

- ◆ Number of resilient policies implemented by GM&B municipalities
- ◆ Number of innovative procurements
- ◆ Number of procurement trainings

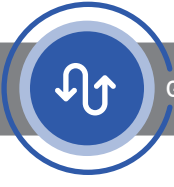
KEY COLLABORATORS

LEAD: GM&B

- ◆ Participating GM&B municipalities
- ◆ National Institute of Government Purchasing (NGIP)
- ◆ Anchor institutions

FUNDING

Funding will be identified by each entity during the annual budget process



GOAL 3: PATHWAYS





CASE STUDY

MIAMI BEACH GREEN PURCHASING POLICY

The City of Miami Beach has created and adopted a Green Purchasing policy that includes elements of resilience to address shocks and stressors. Additionally, the City has recently processed three thought-provoking and cutting-edge solicitations that illustrate the type of changes required by municipal governments to address the challenges of our time:

1. Business case analysis/economic analyses of the City's stormwater program
2. Development of design guidelines for historic preservation in the face of sea level rise and climate change
3. Master design consultant for integrated water management

These solicitations challenged the consultant community to forge new relationships and to cross sectors to begin to answer the complex questions facing cities today.





OBJECTIVE 14: LEVERAGE OUR DOLLARS

ACTION 58: PILOT RESILIENCE FINANCING DECISIONS TOOLKIT

HOW THIS WILL HELP US

- ◆ Increases understanding of resilience
- ◆ Streamlines government processes
- ◆ Improves financial planning

PERFORMANCE METRICS

- ◆ Creation of a Resilience Financing Decisions Toolkit
- ◆ Number of resilient shoreline projects funded/year

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ The Nature Conservancy
- ◆ GM&B municipalities

FUNDING

Partially funded by Miami-Dade County



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

GM&B will use the initial financing resources developed during the Resilient305 Strategy development phase to create a resilience financing decisions toolkit that will serve as a resource and guide for GM&B municipalities that are evaluating and prioritizing funding options for resilience-related projects. Technical experts and municipal stakeholders will be convened to identify gaps and additional resources to further enhance the toolkit. Resilient305 actions, such as the Sea Level Rise Strategy and The Nature Conservancy's nature-based coastal resilience project, will also inform development of the resilience financing decisions toolkit. Stakeholders and potential users will be brought together to vet a draft toolkit and help finalize it before release. The goal of this action is to provide resources and assistance to smaller cities with limited staffing and financial resources and to help better coordinate resilience projects across the GM&B region.



CASE STUDY

INNOVATIVE INSURANCE FOR TOURISM INCOME IN THE CITY OF MIAMI BEACH

The City of Miami Beach has actively examined parametric insurance as part of the 100RC network. Parametric insurance is a form of risk transfer, paying an agreed-upon amount when a specific condition is met. This is an excellent exercise for city managers, risk managers, and chief financial officers in determining their best financial risk reduction method. Such innovative insurance mechanisms were also a feature of the Urban Land Institute Advisory Services Panel invited by the City of Miami Beach for a global and interdisciplinary analysis of the City's stormwater program. As the leading revenue generator for GM&B and second in the State of Florida, tourism revenue is a key funding source and is governed by state statute.

Tourism revenue is relatively volatile because it is vulnerable to sudden changes in economic conditions and other shocks. While this revenue is critical to the City, there is also a risk from any significant negative impacts to both the Resort Tax Fund and the General Fund. Over the last few years, the City's tourism revenue has suffered from major events like Hurricanes Matthew and Irma, alarm over the Zika virus, the closing of the convention center during renovation, and economic recession. Given this variability, the City decided to seriously explore parametric insurance for its tourism revenue.





OBJECTIVE 14: LEVERAGE OUR DOLLARS

ACTION 59: DEMONSTRATE THE COST BENEFITS OF RESILIENCE

HOW THIS WILL HELP US

- ◆ Replaces aging infrastructure
- ◆ Improves financial planning
- ◆ Improves communication with residents

PERFORMANCE METRICS

- ◆ Number of resilience infrastructure projects in cities evaluating costs and benefits
- ◆ Number of projects initiated due to study

KEY COLLABORATORS

LEAD: City of Miami Beach

- ◆ GM&B

FUNDING

Funded by each entity



TIMEFRAME: SHORT-TERM (1-5 YEARS)

DESCRIPTION

Cities need to invest in infrastructure now to reduce the risk of flooding today and well in the future. How to communicate the value of these investments is a developing field for many disciplines, from engineers and scientists to bankers and insurance companies. GM&B will lead (and learn from) all our cities as we define and communicate the benefits of resilience investments together. GM&B will share its approaches and lessons learned from a variety of studies and projects (such as those described in the following case study), including cost-benefit analyses in dollar terms, green infrastructure, and adaptation pathways. The more cities can work together to increase the understanding of resilience benefits for public and private property, the more we can help residents, businesses, elected officials, and the world be informed to make their own adaptation investment decisions. This action will also be part of Action 46: Resilient 35 in the 305 Network, which builds relationships and resilience across municipal governments. GM&B will also share this information for dialogue and learning with its participating Chambers of Commerce.



CASE STUDY

COST-BENEFIT ANALYSIS OF RESILIENCE INVESTMENTS

The City of Miami Beach's 'Business Case Analysis' is a one-of-a-kind project that will examine both the risks from sea level rise and rainfall, and demonstrate how the stormwater program can reduce this risk. The study will demonstrate the costs and benefits of doing nothing, of public infrastructure investment, and of varying levels of private adaptation investment. This type of cost-benefit analysis is a unique process and requires a diverse team—from scientists to flood insurance experts—to begin to understand the complexity of these separate but related issues.

Miami-Dade County is conducting a county-wide assessment of the feasibility of various measures that can protect the community from impacts of sea level rise. This assessment estimates the economic feasibility of the multiple adaptation pathways under consideration.

Miami's updated stormwater master plan includes a cost-benefit analysis of all recommended capital improvements. Considerations include risk reduction to lives and property, as well as environmental, economic, and quality-of-life impacts. To demonstrate the benefits of this approach, the City recently partnered with its Downtown Development Authority to contract Impact Infrastructure, Inc. to conduct a model, triple bottom line (environmental, social, and economic) cost-benefit analysis on a hybrid living shoreline project in the Brickell Area.





IMPLEMENTATION



IMPLEMENTATION



IMPLEMENTACION

IMPLEMENTATION

APLIKASYON



RESILIENT305 STRATEGY IMPLEMENTATION

PROGRESS, INNOVATION, AND VISION FOR OUR TOMORROW (PIVOT)

HOW THIS WILL HELP US

- ◆ Development of shared legislative priorities
- ◆ Increased understanding of resilience
- ◆ Streamline government processes

PERFORMANCE METRICS

- ◆ Number of actions underway
- ◆ Annual progress report

KEY COLLABORATORS

LEAD: Miami-Dade County

- ◆ The Miami Foundation
- ◆ GM&B Partners

FUNDING

Funded by The Miami Foundation and in-kind support from the GM&B partners and participating entities.



Over the last three years, while Miami-Dade County, the City of Miami and the City of Miami Beach were developing this unified Strategy as Greater Miami & the Beaches, each entity has been busy developing and implementing comprehensive strategies and action plans to build resilience within their jurisdictions. This includes integrating resilience into city and county-wide strategies, budgets, comprehensive plans, and emergency management plans; appointing resilience liaisons from key departments; developing and passing bonds to finance resilient infrastructure; passing policies and securing funds to accelerate the creation and preservation of affordable housing; improving and expanding mobility options; expanding economic opportunities and mitigating flood risks. The unified Strategy development process informed and strengthened how we approached building resilience within our own jurisdictions. The Resilient305 Strategy will now become the overarching link of our planning efforts and the foundation for not only our individual strategies, actions, and investments, but also for the other municipalities, businesses, institutions and community organizations within Greater Miami & the Beaches.

We recognize that implementing each of the actions within the Resilient305 Strategy will require dedicated effort from a team that we call PIVOT or Progress, Innovation, and Vision for Our Tomorrow. The PIVOT team will look at resources, timeframes, and priorities to develop a work plan and oversee implementation and strategy progress.

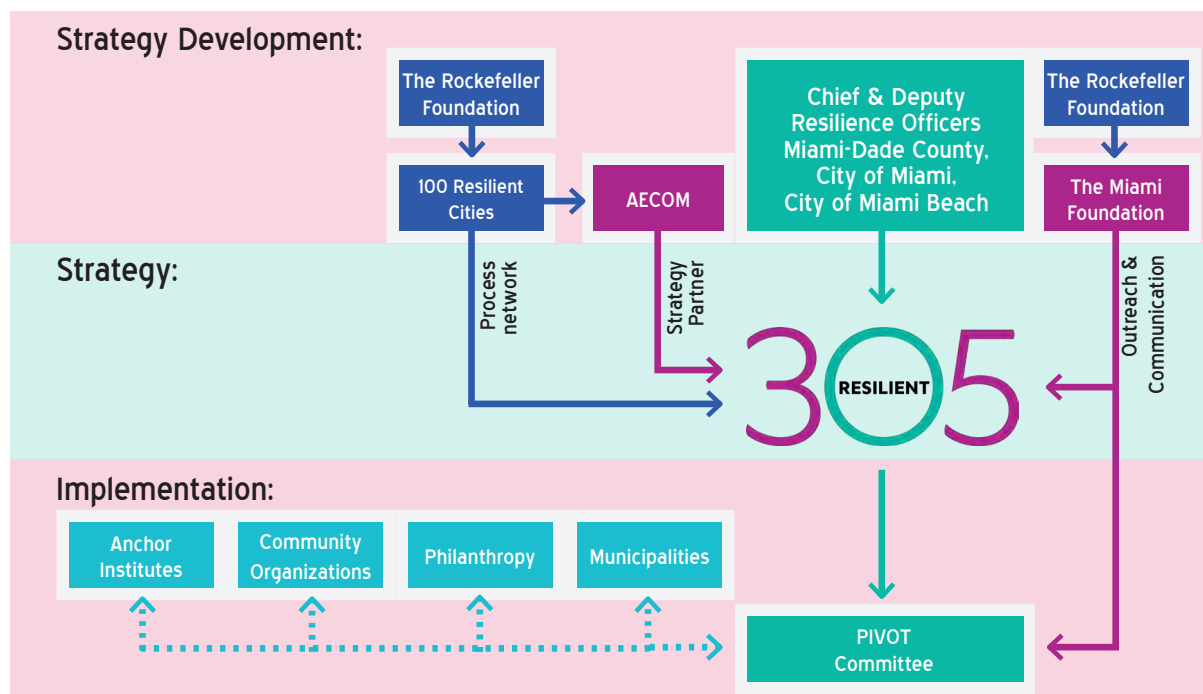




PIVOT TEAM

The initial PIVOT Team will be composed of a senior administrator and a CRO from each of the Greater Miami & the Beaches partners and a representative from The Miami Foundation. The CROs will continue to share management of the process and the appointed representatives will provide legislative and budget guidance for implementing the Strategy. The PIVOT team will ensure the region's diversity is reflected in actions undertaken by GM&B. Actions in the Resilient305 Strategy will be supported initially by staff resources from each entity and participating organizations.

As actions are undertaken, additional members from the community will be invited to join the PIVOT Team in support of the prioritized actions. The PIVOT Team will grow as additional GM&B municipalities and organizations join after they complete Action 45: Send your Boss to Boot Camp and designate a municipal CRO. Membership may also grow based on the stakeholders needed to help implement the Resilience Strategy actions. Committees will be formed over time, to address areas such as funding, communications, engagement for every action, legislative priorities, performance metrics, and equity.



PIVOT SUPPORT

Miami-Dade County and The Miami Foundation will closely collaborate to mobilize resources, maintain the budget, provide ongoing communications amongst relevant partners and the community, and promote implementation of the Strategy county-wide. Specifically, they will assist in establishing shared measurement practices and building partners' capacity to contribute and utilize resilience tools developed. This focused day to day work will help institutionalize resilience actions across municipalities and is essential to maintain public support and implement policy priorities.

PIVOT ACTIONS

The PIVOT Team will meet monthly, and CROs will report back to their respective Commissions with updates. Within the first six months of the Resilient305 Strategy release, the initial PIVOT Team will prioritize the first wave of immediate actions. The Team will create a monthly schedule of meetings, an initial workplan, and a communications plan for implementing the actions.

PIVOT BENEFITS

The PIVOT team will continue to share management of the process and the appointed representatives will provide legislative and budget guidance for implementing the Strategy. Team members will also be afforded the opportunity to collaborate with other organizations to promote resilience.



ACTION TIMEFRAMES

The table below sets out the actions included as part of Resilient305 and the associated timeframes for implementation. Ensuring each action is implemented according to this will keep momentum and energy, enable effective monitoring of performance metrics and will help build a resilient Greater Miami & the Beaches.

Immediate (0-1 year)		Short-term (1-5 year)	
Action 1	Preserve and Restore Biscayne Bay	Action 3:	Bolster Our Beaches
Action 2	Build Reef Biodiversity and Defenses	Action 4:	Expand Nature-Based Infrastructure
Action 11	Maximize Opportunity Zones	Action 5:	Integrate Resilience into Parks and Open Spaces
Action 32	Pilot an Arrest Diversion for Opioid Users	Action 6:	Reduce "Back Bay" Flooding
Action 36	Time to Volunteer	Action 7:	Implement Sea Level Rise Strategy
Action 39	Get the 311 on Resilience for the 305	Action 8:	Develop Sea Level Rise Checklist for Capital Projects
Action 41	See it To Believe It	Action 9:	Create Development Review Checklist
Action 43	Roll-out 5-Step Guide to Innovative Recovery Financing	Action 10:	Strengthen Resilience Planning
Action 44	Bounce Forward 305 - Distribute Resilient Urban Land Use Essentials Guide	Action 13:	Design a Better Bus Network
Action 45	Send your Boss to Bootcamp	Action 14:	Drive into the Future
Action 47	Train Employees to be Resilient	Action 15:	It's Electric
Action 50	Create an Actionable Science Advisory Panel (ASAP)	Action 16:	Expand Renewable Energy
Action 52	Create a Resilient305 ArcGIS Hub	Action 17:	Building Efficiency 305
Action 55	Planning Efficiently & Effectively Together	Action 18:	Stay and Live in the 305
Action 57	Leverage the Power of Purchasing	Action 19:	Redeveloping Resilient Public Housing
		Action 20:	Build an Inclusive Economy
		Action 21:	Train for Construction
		Action 23:	Buy Local
		Action 24:	Be Counted
		Action 25:	Re-establish the Financial Capability Collaborative
		Action 26:	Teach Kids to Save

RESILIENT305 GOALS:



PLACES



PEOPLE



PATHWAYS



Short-term (1-5 year)

Action 27:	Expand Youth Career Opportunities
Action 28:	Break the Cycle of Youth Violence
Action 29:	Respect Our Elders
Action 30:	Update the Social Services Master Plan
Action 31:	Advocate for Mental Health
Action 33:	Accelerate Progress of HIV/AIDS Strategy
Action 34:	Advance Pandemics Communication
Action 35:	Increase Neighborhood Response
Action 37:	Prepare Your Property
Action 38:	Support Resilience Hubs
Action 40:	Create a K-12 Plan for Resilience Literacy
Action 42:	Pre-planning for Post-disaster Toolkit
Action 46:	Resilient 35 in the 305 Network
Action 48:	RISE to the Rescue
Action 49:	Collaborate with Universities
Action 51:	Resilience Accelerator Workshops
Action 53:	Share Bold Integrated Water Models
Action 54:	Employ a One Water Approach
Action 56:	Finance a Resilient Future
Action 58:	Pilot Resilience Financing Decisions Toolkit
Action 59:	Demonstrate Cost Benefits of Resilience

Mid-term (5+year)

Action 12:	Develop Mobility Hubs in the 305
Action 22:	Promote Fair Chance Hiring





AGRADECIMIENTOS ACKNOWLEDGEMENTS REMÈSIMAN



Acknowledgements

The Resilient305 Strategy is a milestone that could not have been completed without the diversity and passion of our community. Thank you to all of our partners in this journey—we look forward to your roles evolving and shaping the implementation of the Strategy and actions within it.

Miami-Dade County staff

City of Miami staff

City of Miami Beach staff

The remaining 32 Municipalities within Miami-Dade County

Steering Committee Members

Gretchen Beesing, Catalyst Miami

Truly Burton, Builders Association South Florida

Jaret Davis, Beacon Council

Erik Eikenberg, Everglades Foundation

Maurice Ferre, MDX

Valencia Gunder, New Florida Majority

Bobbi Ibarra, Homes for All

Marsha Jackman, Vailon Group

Jorge Luis Lopez, Parks Foundation

Michelle Mejia, Baptist Health Kendall

Rebekah Monson, The New Tropic

Delaney Reynolds, Sink or Swim

Scott Robins, Developer

Zerry Ihekweba, City of Miami

Jimmy Morales, City of Miami Beach

Jack Osterholt, Miami-Dade County

Javier Soto, The Miami Foundation

Phase II: Discovery (Focus) Area Members

Living with Water, Natural Resources Leads:
Margarita Kruffyff and Rod Braun

Living with Water, Coordinated Planning Leads:
Ajani Stewart and David Martin

Living with Water, Innovative Finance Leads:
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Advancing and Adapting Leads:
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Building Prosperity Leads:
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A Thriving Community Leads:
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Robust Recovery Leads:
Carlos Castillo and Debbie Griner

Leadership for Tomorrow Leads:
City of Miami Beach Commissioner Aleman and Irela Bague

Also, the countless organizations and dedicated experts who have contributed their time and knowledge in support of this Resilient305 Strategy.