



MIAMI BEACH  
RISING  
ABOVE

**National Conference  
On Ecosystem  
Restoration  
2018**



# Today's Topics

- Greetings from South Florida !
- Scaling resilience planning
  - City – Miami Beach
  - County – Greater Miami & Beaches
  - Regional – SE Florida Climate Compact
  - Sector – Resilient Utilities Coalition
  - State – Resiliency Florida
  - Global – 100 Resilient Cities
- What does success look like?
- Q & A
- Thank you !

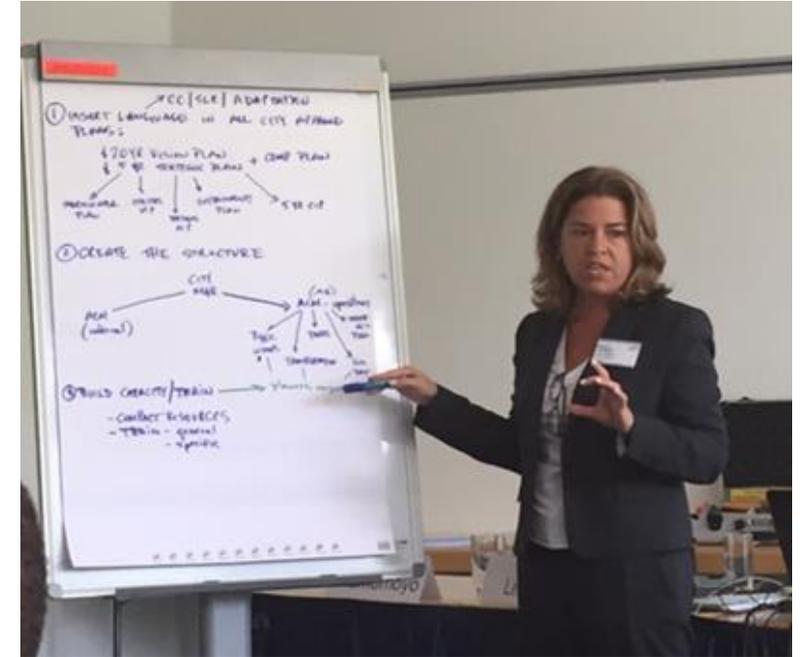


# Scaling our Work



# Chief Resilience Officer's Role

- Communicate
- Convene
- Coordinate
- Collaborate
- Connect the dots
- Keep moving from planning to action
- Break down silos – inside government
- Work across boundaries
- *Wake up every morning and think about how to integrate resiliency into all of your operations*



MIAMIBEACH  
RISING  
ABOVE



Miami Beach  
– City Level

# From Strategic planning To Resilience Strategy

**Strategic planning** is an organization's **process of defining its strategy, or direction**, and making decisions on **allocating its resources** to pursue this strategy.

“It is the **DIRECTION** for accomplishing **GOALS**.”

(last updated in 2015 via City Commission resolution)



# From MB Strategic Plan

# To Miami Beach Resilience Strategy



2005 Excellence Model



Resilience Strategy Model

*Through help from 100 Resilient Cities, Miami Beach is transitioning from a traditional strategic plan model to a more modern resilience strategy model.*

# What are we doing in Miami Beach?

- Water, sewer, and drainage systems need to be **redesigned, rebuilt, and maintained**, with acknowledgement of accelerating sea level rise and the potential for higher storm surges and heavy rainfall events.
- **Rising sea levels are one component of living with water.** We need a good understanding of groundwater levels as well. Groundwater table levels have to be properly managed to provide sufficient protection from saltwater intrusion and manage flood risks from groundwater rise.

*Miami Beach began an aggressive stormwater program in 2013, beginning with the Sunset Harbor neighborhood.*



# What are we doing in Miami Beach?

## Land Use Code Updates

*Miami Beach has adopted extensive land use amendments to guide future development. They will increase our resilience and reduce our risk from flooding.*

Resolution   Ordinance	Adopted	Summary
<b>2014 – 28499</b>	Feb 2014	Changes 0.5' (NAVD) to 2.7' (NAVD) for all tidal boundary conditions. Based on highest tidal events non-storm of 1.7' (NAVD) .
<b>2015-28921</b>	Feb 2015	Establishes minimum elevation for crown of roads at 1' higher to 3.7' (NAVD) than the tail water elevation of 2.7' (NAVD) for specific projects .
<b>2016-3987</b>	Jan 2016	Increases single-family front and side-yard set back amendments to increase green space.
<b>2016-4009</b>	May 2016	Amends Chapter 54 by establishing freeboard: a minimum 1' and maximum 5' above FEMA base flood elevation, or have enough headroom in to raise the floor in the future.
<b>2016-4010</b>	May 2016	Establishes a base flood elevation (BFE) of 8.0' (NGVD) in areas that have a lower, 7.0', FEMA BFE.
<b>2016-29454</b>	Jun 2016	Amends Stormwater Management Master Plan to incorporate modifications to the standards for the construction of new roads, stormwater systems, and developments; which standards would incorporate higher elevations to reduce the risk of flooding; redefines the level of service and design storm; and defines minimum "future grade" and seawall heights.
<b>2016-4027</b>	Sep 2016	Amends Comprehensive Plan in order to improve the ability to mitigate the impacts of sea level rise and comply with Senate Bill 1094 by designating the city as an Adaptation Action Area.
<b>2017-4121</b>	Jul 2017	Amends RM-1 and RM-2 to include increased open space, reduced parking requirements, modifications to height, and yard elevations.
<b>2017-4123</b>	Jul 2017	Establishes sea level rise and resiliency review criteria within Land Development Regulations.
<b>2017-4124</b>	Jul 2017	Allows for buildings in Commercial and Town Center districts to be up to an additional 10' of height, provided that the first floor has a minimum of 12' from BFE plus maximum freeboard, to the top of the second floor slab. Also amends allowable height exceptions to incentivize sustainable roofing systems.

# Miami Beach

## What are we doing?



- Constructing green living shorelines.
- Extensive sand dunes that minimize risk from storm surge and provide habitat.
- Using the ADAPT vulnerability assessment to increase resilience for City infrastructure.
- Design guidelines for historic preservation in the face of sea level rise and climate change.
- Unique and creative ways to help the community learn more, including an **Adaptation Calculator** and **dynamic Resilience Open Houses**.
- Dynamic **surface/groundwater modeling**.
- Last year hosted the U.S. Conference of Mayors, and is internationally **recognized for its adaptation projects**.

# Miami Beach

## What are we doing?

- Commission Committee on **Sustainability and Resiliency**.
- **Mayor's Blue Ribbon Panel** on Flooding and Sea Level Rise 2013-2017.
- Multi-year **stormwater program** that uses sea level rise **projections**.
- Systematically updating the **land use and development code** to incorporate climate adaptation and resilience, including increased freeboard, base flood elevation, roadway, ground, and seawall heights.
- Establishing a pool of contractors with the capacity to develop a **business case analysis of the resilience program**.
- Hosting an **Urban Land Institute Technical Assistance Panel** to provide recommendations to the stormwater resilience program.

*“The City of Miami Beach is committed to adapting to sea level rise, investing in aging infrastructure, and using the best available science to do so.”*



RESILIENT

GREATER MIAMI  
& THE BEACHES

Greater Miami & the  
Beaches – county level  
action, global resources

*Resilient 305*

# Greater Miami & the Beaches unique partnership

Resilient GM&B is a **collaboration among Miami-Dade County, City of Miami, and City of Miami Beach**, created to respond to the region's major challenges.

In 2016, after a very competitive process of more than 400 applicants, GM&B was selected to join 100RC. **With the support of 100RC, we are creating your resilience strategy!**



# Strategies & Plans

The **City Resilience Strategy** is the product of a process during which a city develops a better understanding of the challenges it faces; reviews its ability to address those challenges; and **unites people, projects, and priorities**, so that cities can collectively act on their resilience challenges.



*Target release date: 2019*





Southeast Florida  
Climate Compact –  
regional planning,  
tools and capacity  
building

# Compact Background

- Miami Dade, Broward, Palm Beach and Monroe = 4 counties + 100 cities
- Adopted by all four counties by January 2010
- Called for:
  - Joint legislative policy development – yearly
  - Regional GHG baseline - done
  - Regionally consistent SLR mapping – 2012, 2015, 2020 *next*
  - Preliminary Inundation Mapping - done
  - Regional Climate Action Plan - 2012 & 2017
  - Annual Leadership Summits
  - Regional capacity building workshops

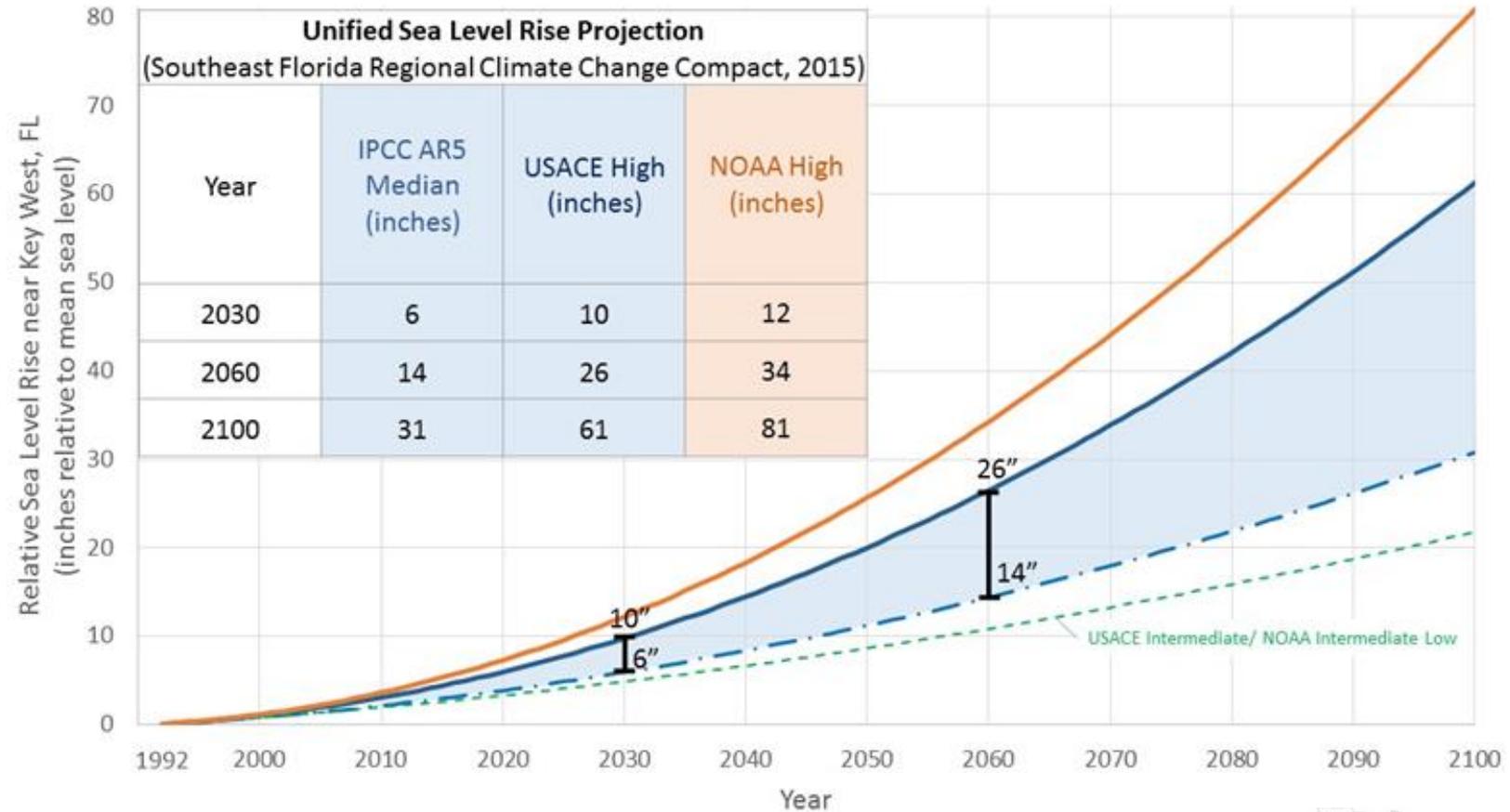
***10<sup>th</sup> Annual Oct, 24 & 25 –  
Miami Beach Convention Center  
Join us!***



# What tools are we using?

# SE FL Climate Change Compact

- Miami Beach participates in the **Southeast Florida Regional Climate Change Compact**.
- The Compact convenes scientists to develop unified **sea level rise projections** for Southeast Florida.
- Miami Beach adopted the projections in **2016** for planning purposes.



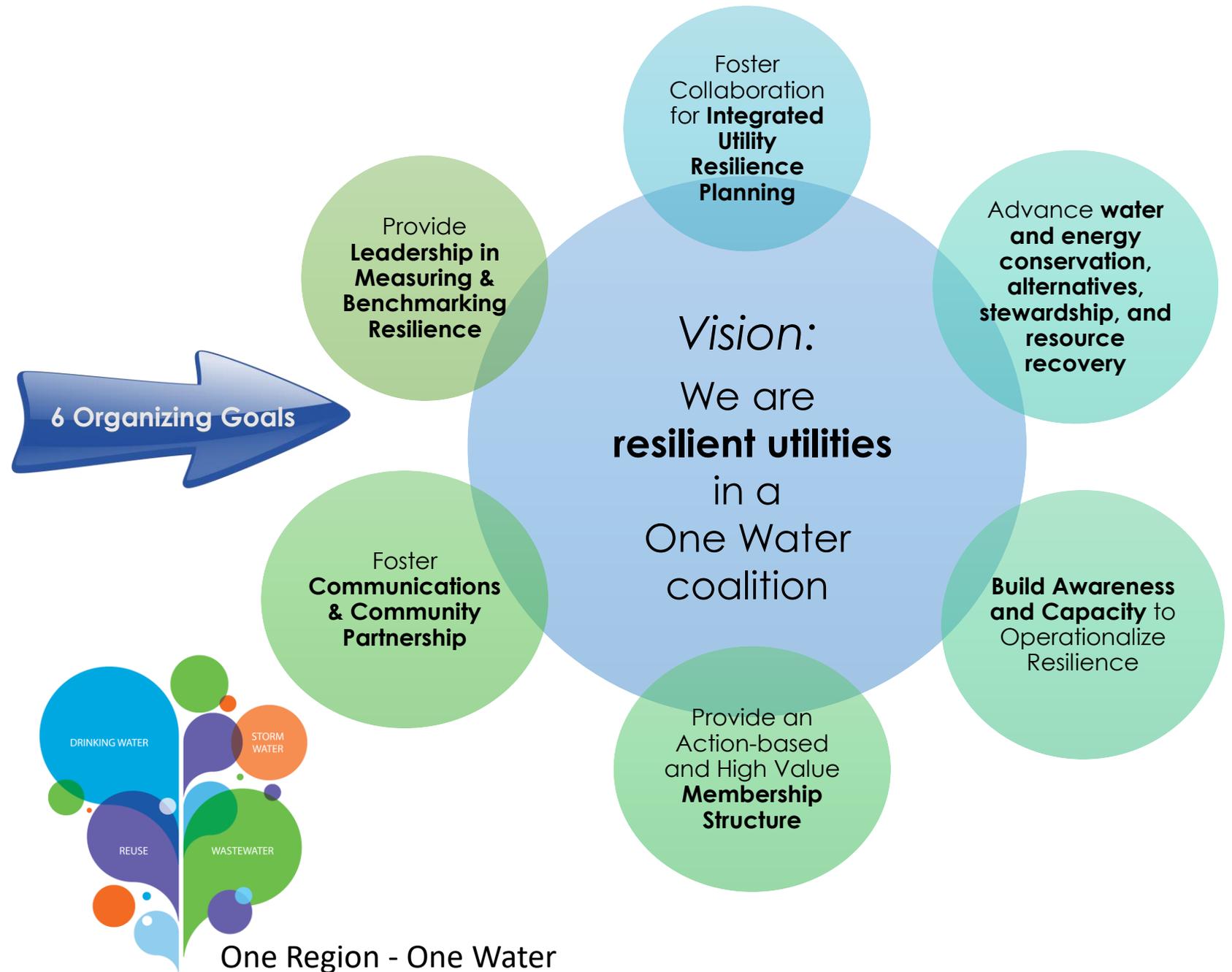


Resilient Utilities  
Coalition –



# MISSION STATEMENT

By operationalizing resilience through interdisciplinary and integrated planning we are improving water quality, public health, the efficient use of resources, and ensuring responsible investments in our utilities.

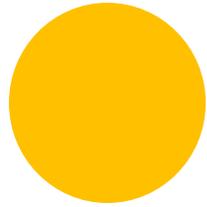
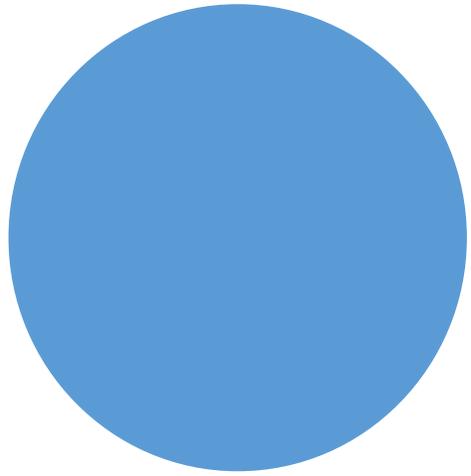




# Resiliency Florida - Statewide

A non-profit organization made up of **public and private** partners dedicated to promoting the development of state and regional strategies and action plans to adapt to extreme weather and sea level rise.

Resiliency Florida **advocates** for increased investment by the state and federal governments for critical infrastructure, habitat protection, mitigation projects and development of adaptation responses throughout Florida.



What does success  
look like?





APRIL 2013

**BEFORE**



NOVEMBER 2017

**AFTER**



2013

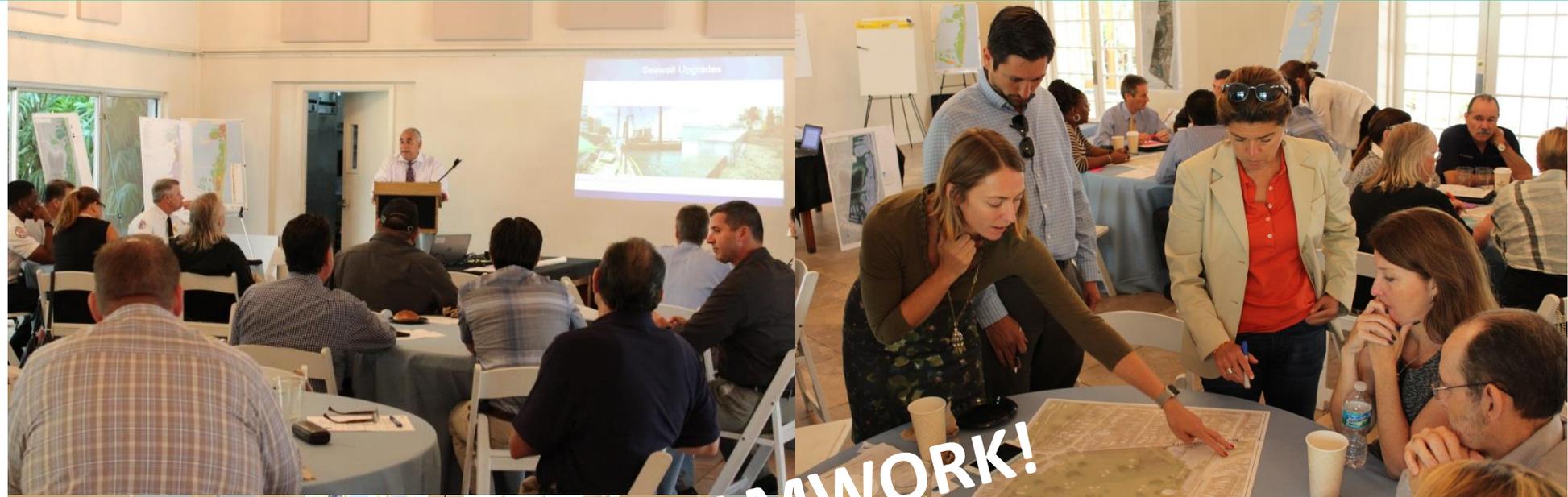
**BEFORE**



2017

**AFTER**

# Integrated Planning



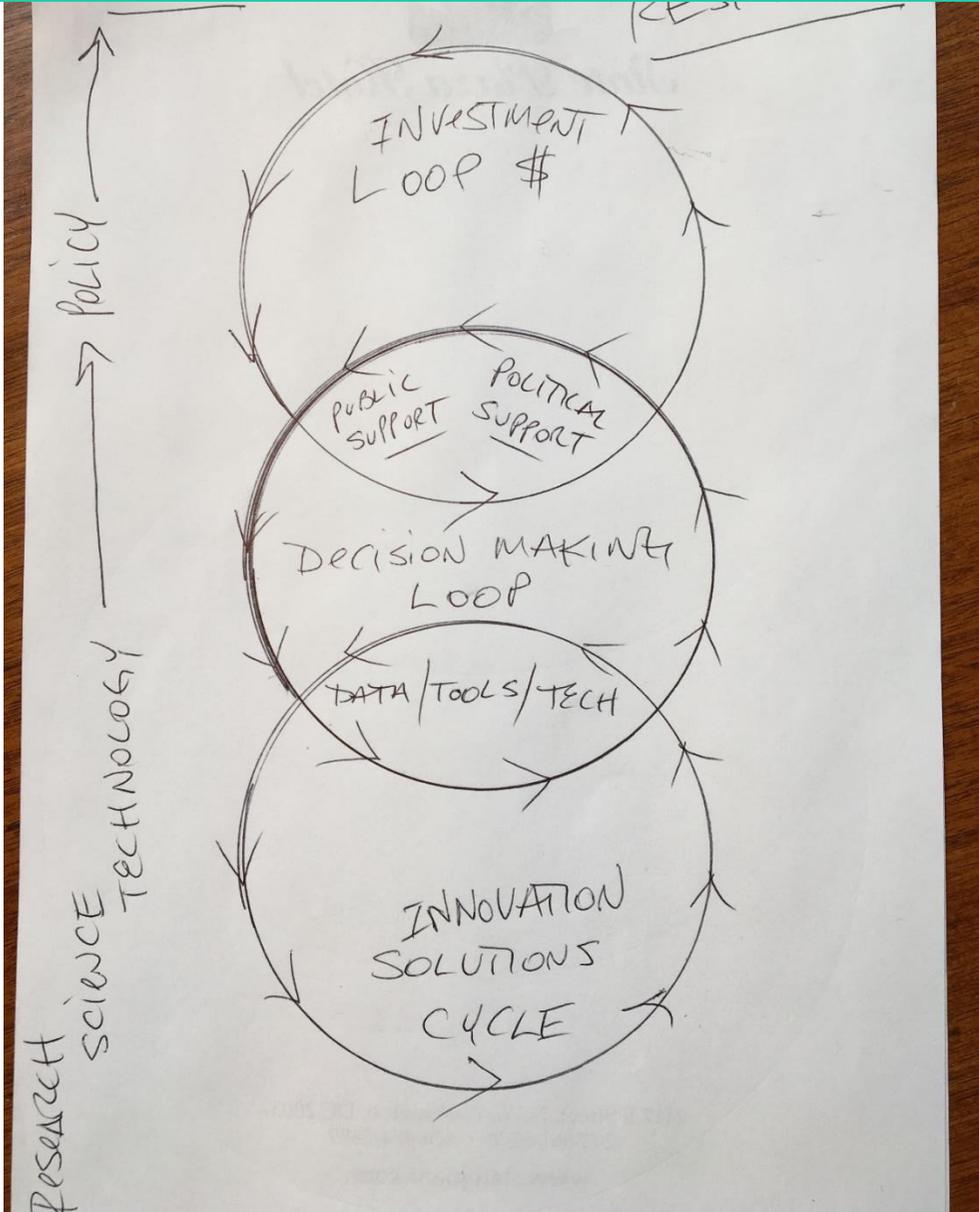
**TEAMWORK!**



# Collaboration



# Investments and Innovations



dynamic  
and  
integrated  
**RESILIENCE**

# Lessons learned from...

- ✓ Elevate the issue
- ✓ Create the structure – integrate into existing municipal operations
- ✓ Connect the dots – break down silos between departments and disciplines
- ✓ Reinvent/modernize and challenge local government service delivery and operations
- ✓ Invest in staff capacity building
- ✓ Find opportunities, especially in disasters
- ✓ Draw connections and communicate constantly
- ✓ Use the best available data (science, engineering) you have at the time to make informed recommendations to decision makers
- ✓ Prioritize scarce dollars and make strategic capital investments towards projects that reduce risk and promote resiliency
- ✓ Foster relationships!



MIAMI BEACH  
RISING  
ABOVE



<http://www.mbrisingabove.com/>

We welcome you to a new Miami Beach web portal, our one stop shop for all city sustainability and resilience efforts from stormwater, to planning, land use and the environment.

<http://www.southeastfloridaclimatecompact.org/>

Visit this site to learn more about our climate adaptation and mitigation work at the four county regional level.

<http://resilient305.com/>

Learn more about our partnership with 100 Resilient Cities and Greater Miami and the Beaches.



# Resources

An aerial photograph of Miami Beach, Florida, showing a long pier extending into the turquoise ocean. The beach is crowded with people, and the city skyline with several high-rise buildings is visible in the background under a blue sky with scattered white clouds.

**Susanne M. Torriente**  
**Assistant City Manager**  
**& Chief Resilience Officer**  
**City of Miami Beach**

**[susytorriente@miamibeachfl.gov](mailto:susytorriente@miamibeachfl.gov)**

*Thank you, Susy*