

TOWARD AN ADAPTIVE MANAGEMENT MODEL FOR BUILDING URBAN RESILIENCE

The Case of the Southeast Florida Regional Climate Change Compact

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THE REGION OF SOUTHEAST FLORIDA



- 4 counties/110 Cities
- Home to 5.8 million residents
- Accounts for 1/3 State GDP
- Dense coastal development
- Flat and low-lying landscape
- Rich coastal resources



INTERCONNECTED

- Transportation systems
- Water supply and water management
- Critical habitat and natural systems
- Recreational and commercial fisheries
- Communities and economies



SOUTHEAST FLORIDA REGIONAL CLIMATE CHANGE COMPACT

- Initiated in October 2009
- Product of 1st Annual Summit
- Response to shared challenges and needs
- Voluntary collaboration

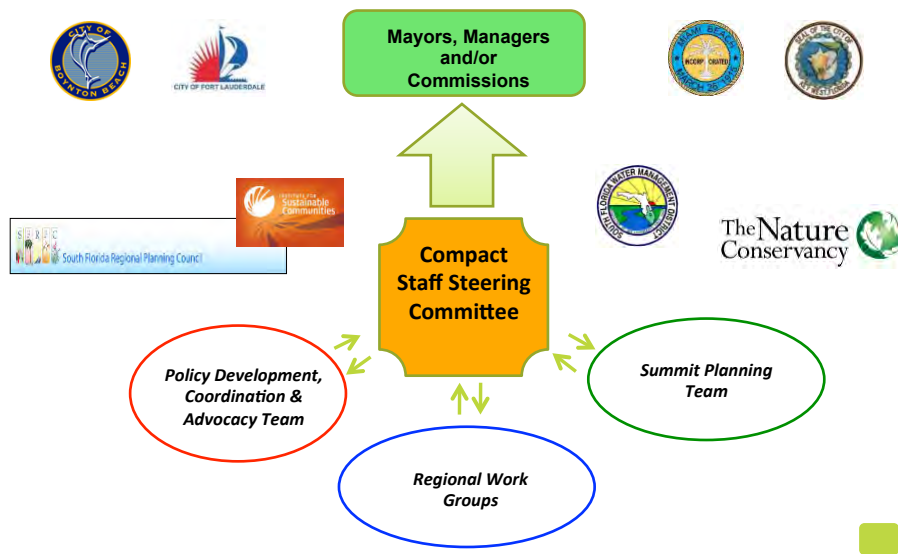


COMPACT COMMITMENTS

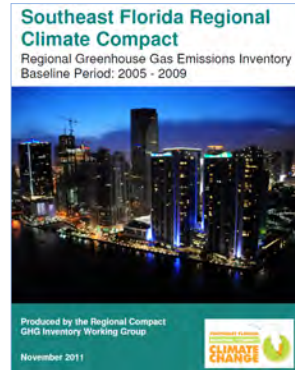
- Policy collaboration
- Development of regional tools
- Creation of a Regional Climate Action Plan
- Hosting of annual summits



COMPACT ORGANIZATIONAL STRUCTURE



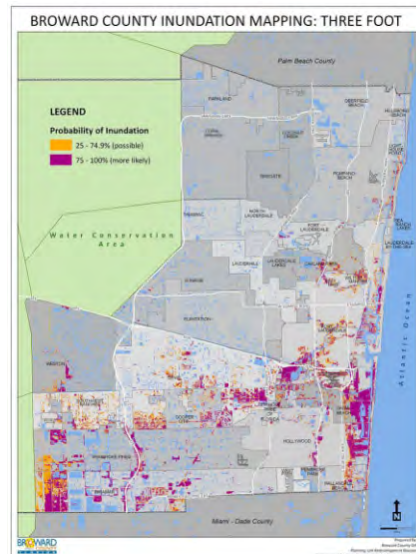
EARLY WORK - TECHNICAL DOCUMENTS DEVELOPED



All documents available at <http://southeastfloridaclimatecompact.org/>

VULNERABILITY ASSESSMENTS

- **Inundation Mapping**
 - Regional digital elevation model
 - 1, and 3 foot scenarios
 - Common method to express potential risk
- **Vulnerability Analysis**
 - Prioritized infrastructure for analysis
 - Included uncertainty

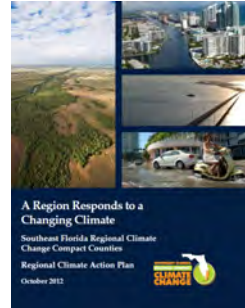


THE REGIONAL CLIMATE ACTION PLAN

To **integrate** climate adaptation and mitigation into existing systems, through existing processes.
5 year timeframe

Focal Areas:

- Sustainable Community and Transportation Planning
- Water Supply, Management and Infrastructure
- Risk Reduction and Emergency Management
- Energy and Fuel
- Natural Systems
- Agriculture
- Outreach and Public Policy



Includes companion Implementation Guide

>100 Recommendations
Adaptation and Mitigation

[Download at www.southeastfloridaclimatecompact.org](http://www.southeastfloridaclimatecompact.org)

IMPLEMENTATION STRATEGY

- Integrate recommendations into existing process, planning, and systems
 - Comprehensive plans
 - Water supply plans
 - Land use plans
 - Transportation plans
 - Local mitigation strategies
 - Post disaster redevelopment plans

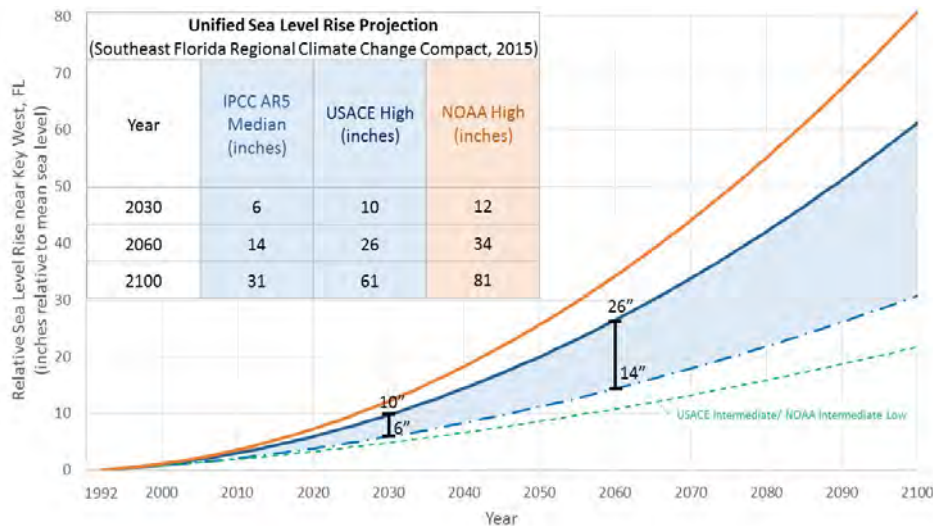


ADAPTIVE LEARNING CONTEXT

- Conscious decision to construct the RCAP in 5 year increments – iterative process of analysis, strategy development, implementation & assessment;
- First RCAP published in fall of 2012 – Second RCAP slated for completion in fall of 2017
- Currently updating science basis for regional vulnerabilities to incorporate latest peer-reviewed publications including NCA & AR5


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REVISED REGIONAL SLR PROJECTIONS




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TRACKING RCAP IMPLEMENTATION

- Compact surveys of municipal implementation of RCAP recommendations
 - First survey completed in fall of 2014
 - Key results here – over 50% of cities are implementing – 20% have implemented more than half of the recommendations
 - Currently updating the survey
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QUALITATIVE ASSESSMENT OF RCAP IMPLEMENTATION

- The Compact is developing case studies of county and city implementation action
 - First 30 case studies published to Compact website this fall – ongoing collection of new case studies
 - Provides detailed information on implementation & a model for other cities to use in future
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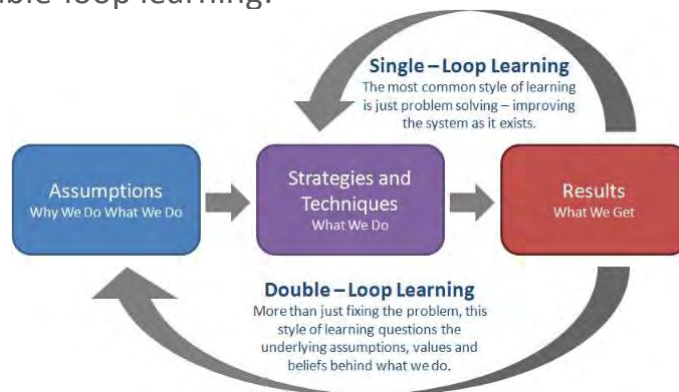
DEVELOPING REGIONAL INDICATORS

- Currently developing a suite of 12 indicators to capture larger climate trends across the region – detecting the SE FL climate signal
- Anticipated publication of indicators to Compact website this fall
- Tracking GHG emissions on a five-year moving average – currently being refreshed



SINGLE VS DOUBLE LOOP LEARNING

- Assessing the underlying science, vulnerability and the efficacy of RCAP actions enable both single-loop and double-loop learning:



CONCLUSIONS

- Climate adaptation is in early emergent stage of practice – we really don't know yet how to fully adapt our cities to climate change;
- Ever evolving science, assessment and policy tools – learning over time is essential;
- The Compact recognizes these challenges and has designed its regional processes to best incorporate learning as we go;
- At its core, the Compact is designed for ongoing adaptive implementation



THANK YOU

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