

# Sea-Level Rise: Translating the Science into Policy and Action

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## Introduction

Climate change and vulnerability science have been documenting the significance of sea-level rise in South Florida at an alarming rate. While predictions vary widely regarding the extent of sea-level rise in the coming century, the scientific community has reached the nearly unanimous conclusion that it will pose a unique threat to communities in South Florida. (Martin, 2011)

In response to a growing body of scientific evidence unequivocally demonstrating that climate change has the potential to adversely affect human populations, regional action plans are quickly gaining prominence as the chief method of developing policy to address adaptation strategies. (Boswell, 2012) The burgeoning development of such plans provides a multitude of benefits, such as increased education, identification of research gaps, and a growing interest in social and ecological resilience to various implications of climate change. (Preston, 2010)

Developed and signed after the first Regional Climate Leadership Summit in 2009, the South Florida Regional Climate Compact is a collective bipartisan agreement that was signed in 2010 between leadership from four Southeast Florida counties, Monroe, Miami Dade, Broward, and Palm Beach; it was the goal of the summit to develop an action plan that could be implemented in South Florida to address the irrefutable science surrounding climate change and the resultant sea-level rise.

## Methodology

It is essential to translate the science into a more accessible, compelling, and practical message for policymakers and the public alike. This study will examine the recent and relevant recommendations from the Southeast Florida Regional Climate Compact's *Regional Climate Action Plan* regarding strategies for sea-level rise adaptation, and distill them into a more concise and actionable message that can be utilized by these parties.

Additionally, effective methods of outreach will be synthesized from existing literature and discussed, and consideration will be given to possible hurdles that must be overcome. Results will showcase the process of translating scientific data into functional methods and recommendations to increase resiliency through mitigation and adaptation.



Clockwise from left: 2012 RCAP, four Compact county commissioners at 2015 Summit, sunny day flooding on Las Olas Boulevard, Fort Lauderdale.

## Preliminary Recommendations

After a review and analysis of the Compact's Climate Action Plan, this study has consolidated this information into a concise message that can be utilized by the public and policy makers alike to understand the issues associated with sea-level rise; five categories of recommendations have been identified, each focusing on a unique dimension of adaptation strategy, as follows:

### Communication & Advocacy

Increase efficacy in addressing state and federal government for research support and funding

### Education & Outreach

Mainstream sea-level rise education, awareness, outreach, and associated adaptation strategies

### Planning & Design

Redefine land use planning, development, and building standards, Adaptation Action Areas

### Risk Management & Protection

Protect infrastructure and natural systems, while managing risk to people and property

### Scientific Research & Monitoring

Encourage further scientific research and continued monitoring, updating existing action plans dynamically

## Communication Techniques

- Citing the science accurately and succinctly – misinterpreting, misquoting, or convoluting data can fuel significant doubt
- Examining and emphasizing co-benefits – representing sustainable development and progress towards resiliency as beneficial
- Addressing the diversity of South Florida – populations cannot be addressed as homogenous (Roser-Renouf, 2014)
- Personalized risk indices for the region using web based GIS applications that are understandable and accessible
- A realignment of perceptions to focus on the science, rather than the present conditions centered around political noise and media frenzy
- Engage diverse stakeholder groups and actively incorporate new feedback in dynamic adaptation plans

## Discussion & Conclusion

While the science and recommendations presented in the 2012 Climate Compact's Regional Action Plan are sound, the report requires a concise message to effectively broadcast to the intended parties. Mitigation and adaptation strategies are developing rapidly, however the necessary communication lags behind these developments. By employing the above focal points to facilitate the translation to both policymakers and the public, a more meaningful message can be conveyed as an impetus for action. Continued research needs to be conducted to determine the most effective methods of addressing specific demographics; however, by employing the points outlined here coupled with the communication techniques, South Florida will make great strides in increasing the resiliency of their communities in the coming decades.

## References

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