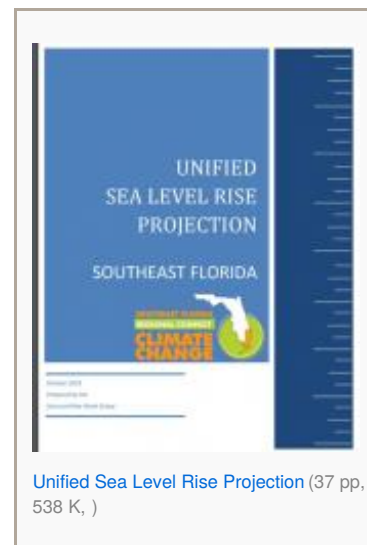


Southeast Florida Compact Analyzes Sea Level Rise Risk

 [epa.gov/arc-x/southeast-florida-compact-analyzes-sea-level-rise-risk](https://www.epa.gov/arc-x/southeast-florida-compact-analyzes-sea-level-rise-risk)

Southeast Florida, with a large population located at low elevation, is among the most vulnerable regions of the country to climate change. The region is comprised of four counties (Monroe, Miami-Dade, Broward, and Palm Beach) that share similar geographic traits and coastal vulnerabilities to sea level rise. Rather than separately attempting to identify climate projections and vulnerabilities, leaders of these counties recognized an opportunity to collaborate and identify climate impacts and vulnerabilities across the region.

A first step was to standardize projections and map sea level inundation. This single region-wide effort brought core stakeholders from counties, regional water management organizations, local universities and federal agencies together to create a regional vulnerability assessment of inundation and flooding. The resulting regional map identified vulnerable infrastructure, including drinking water and wastewater utilities from across the region, and was instrumental in informing development of the South Florida Regional Climate Action Plan. The Regional Action Plan "A Region Responds to a Changing Climate" provides a comprehensive set of recommendations for local governments, focusing on sectors such as transportation, natural resource management, emergency management, and the water sector among others. The Regional Action Plan recommendations on water supply, management and infrastructure protection efforts has since been supplemented by the implementation guidance on "Integrating Climate Change & Water Supply Planning In Southeast Florida". The Compact counties, municipalities, and other organization continue to collaborate on updates to climate projections, including a recent 2015 Sea Level Rise Update, and other common adaptation resources.



How Did They Do It?

Collaborated with neighboring jurisdictions to develop a vulnerability assessment

- Four neighboring counties collaborated to identify the best available geographic data and climate change information to assess vulnerability, rather than working independently.
- Analyzed and published the anticipated regional impact of sea level rise on water and wastewater utilities. Note: Prior to publishing the data publicly, some information on specific facilities were excluded due to security concerns.

Applicable EPA Tools

Being Prepared For Climate Change Workbook outlines how communities of any size can take appropriate steps to develop a vulnerability assessment and risk-based climate change adaptation plan. For more on illustrating vulnerability to a range of potential sea level rise and storm surge scenarios sea level rise, view the EPA Coastal Inundation Coastal Storm Surge Scenario illustrates hurricane strike frequency and worst-case coastal storm surge or inundation scenarios.

- [Being Prepared for Climate Change Workbook](#)
- [EPA Coastal Inundation Coastal Storm Surge Scenario](#)

How Did They Do It?

Applicable EPA Tools

Encouraged and informed regional action

- Developed regional recommendations (South Florida Regional Climate Action Plan) and implementation guidance on how to integrate climate change impacts (e.g., sea-level rise inundation, flooding or saltwater intrusion) within utility water supply planning.
 - [South Florida Regional Climate Action Plan \(PDF\)](#) (84 pp, 4 MB)
- Provided implementation guidance on such topics as infrastructure siting and design, quantifying reduction in drainage capacity and natural resource degradation in order to help reduce climate vulnerabilities to the water supply, water management services and drinking water, wastewater and stormwater management.
- Municipal and local jurisdictions utilized this data to inform and support their adaptation actions, one such example is Miami Beach's adaptation plans to protect utility infrastructure from flooding.

Adaptation Strategies Guide helps communities identify potential adaptation strategies and inform actions for infrastructure located in coastal areas.

[Adaptation Strategies Guide](#)

Similar Cases and More Information

A community doesn't always have to develop new information, for an example of a community that used existing sources of information to guide decision making, see Anacortes. Many communities in the southeast may have to deal with challenges to their source water – whether it is saltwater intrusion, sea level rise, or threats to the facility infrastructure – to learn how a utility is adapting to ensure source water availability, view Tampa Bay Water. To learn more about the South Florida Compact, view the Climate Resiliency Toolkit's Collaboration Among Counties Improves Vulnerability Assessments case study.