FLORIDA DOMINATES NATION’S RISK FROM SEA LEVEL RISE

Miami-Dade, Broward, Pinellas and Lee Counties Top List –
More People at Risk in Each County than in Most Coastal States

(June 20 – Boca Raton, Fla.) Florida faces nearly half the nation’s risk from higher seas and coastal floods worsened by global warming -- with 2.4 of the 4.9 million U.S. residents who live on land less than 4 feet above the local high-tide line living in the state.

More people are at risk in Miami-Dade and Broward Counties than any state other than Louisiana and Florida itself. Lee and Pinellas Counties each face greater risk than all but 5 coastal states.

Fourteen of the nation’s 20 most at-risk cities are in the Sunshine State, and more than half the residents of 107 Florida municipalities live on land below the 4-foot benchmark, a level that exposes them to much increased flooding risk from storm surge combined with sea level rise.

These are among the findings to be presented Thursday morning by Dr. Ben Strauss of Climate Central at "Risk and Response: Sea Level Rise Summit," a June 20-22 conference hosted by Florida Atlantic University's Florida Center for Environmental Studies, directed by Dr. Leonard Berry (press release). The purpose of the summit is to share the ongoing responses of agencies, institutions, and civic society to sea level rise and compare Florida with other vulnerable areas.

“Florida is in the bull’s-eye of sea level rise,” Strauss said. “About half of America’s population vulnerable to higher seas lives in Florida. Given its low-lying geography and frequent storms, Florida faces real risks of harm to people, homes, businesses and the state economy from floods enhanced by sea level rise, even over the next 20 years.” Other speakers will highlight the state’s leaky, Swiss cheese geology, a geology that means rising seas will increasingly contaminate underground fresh water supplies, and sea walls will not effectively protect most communities.

Strauss’s findings stem from his research with colleagues, which culminated in their recent “Surging Seas” report, the first to analyze how sea level rise is compounding the risk from storm surges throughout the U.S., and to share local data in detail. Strauss will be presenting new analysis for Florida at the Sea Level Summit. The Surging Seas website includes a search by zip code, city or county; an interactive online map showing Florida’s exposure and projected risk timelines; a Florida fact sheet; two republishable Florida-focused graphics (1, 2); embeddable local map widgets; links to Florida sea level rise response efforts; and statistics, views and downloadable data for every affected town, city and county in the state.

All findings are ultimately based on two peer-reviewed papers by Strauss and colleagues published March 15 in the scientific journal Environmental Research Letters. On April 19, Strauss testified on this research and its implications for energy infrastructure (map, report) before the U.S. Senate Energy and Natural Resources Committee. Twenty-six Florida energy facilities stand less than 4 feet above local high tide.

Strauss will also present findings that more people live below the 4-foot benchmark in Miami-Dade County than in California, New York and New Jersey combined, and that Florida’s top 10 endangered cities, by population at risk, are Hialeah, Pembroke Pines, Cape Coral, Miami Beach, Plantation, Miramar, Fort Lauderdale, Davie, St. Petersburg, and Miami.

Estimates of vulnerable land, population and housing are based on elevation data and do not take into account potential protective measures such as sea walls or levees. But Florida’s highly permeable limestone bedrock and overburdened canal and drainage systems raise significant
questions about how viable these measures will be as sea level continues to rise.

“Many Florida counties face far more risk from sea level rise and coastal flooding than entire coastal states,” Strauss said. “To protect its coastal communities and statewide economy, Florida faces a heavy burden to prepare for the sea level rise that can no longer be avoided, and to help slow down rising waters by reducing heat-trapping pollution today.”

The Risk and Response: Sea Level Rise Summit is being held Wednesday, June 20 from 3 to 5 p.m., as well as on Thursday, June 21 and Friday, June 22 from 8 a.m. to 5 p.m. at the Boca Raton Marriott, 5150 Town Center Circle, Boca Raton.

URLs: ClimateCentral.org - SurgingSeas.org – SurgingSeas.org/states/FL – ces.fau.edu/SLR2012

Florida graphics for print or broadcast use: Exposure vs. Other States; Changes in Flood Risk