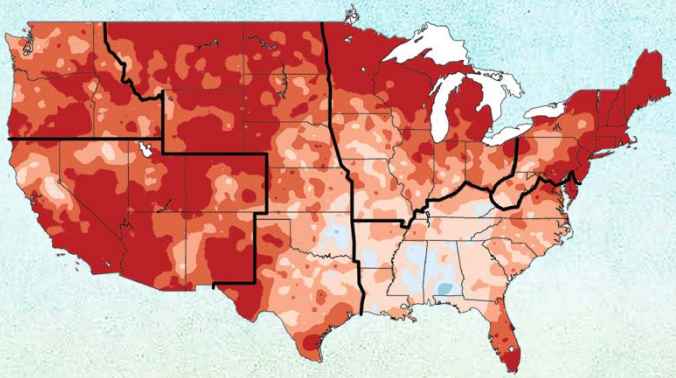
Third National Climate Assessment

Climate Change Impacts in the United States



Dr. John P. Holdren

Assistant to the President for Science & Technology

Director, White House Office of Science & Technology Policy

October 1, 2014

GlobalChange.gov
U.S. Global Change Research Program

Mandate & Process for the 3rd NCA

- Quadrennial assessments mandated by 1990 Global Change Research Act; 1st assessment completed in 2000, 2nd in 2009.

- Prepared for Congress & the President with oversight by the US Global Change Research Program

- Directed by a 60-member Federal Advisory Committee
  - housed in NOAA, with a Technical Support Unit at the NCDC
  - harnessing 300 authors
  - orchestrating a multistage comment & review process that drew on the public, USGCRP agencies, and the National Academies

Human-induced climate change has moved firmly into the present.

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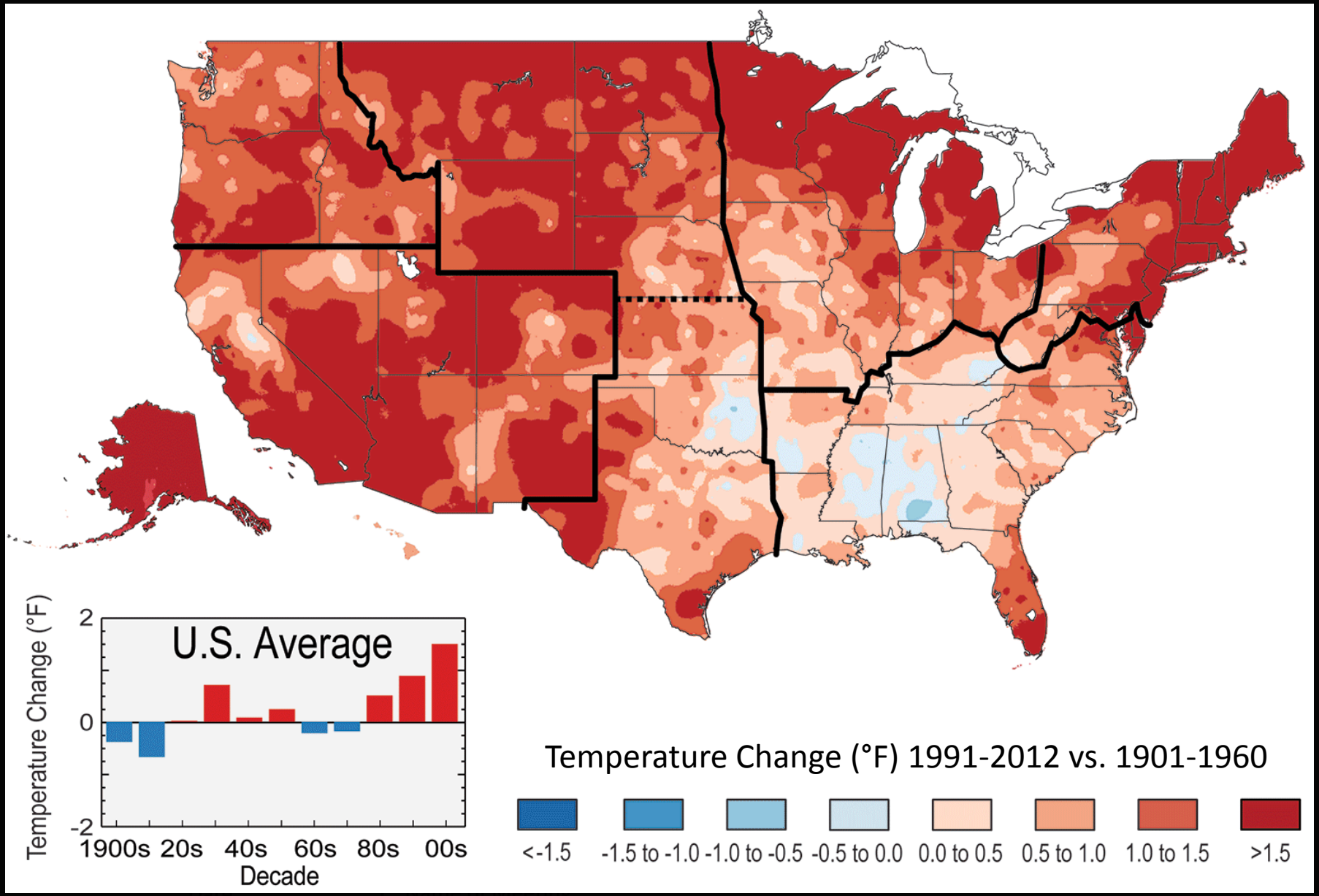
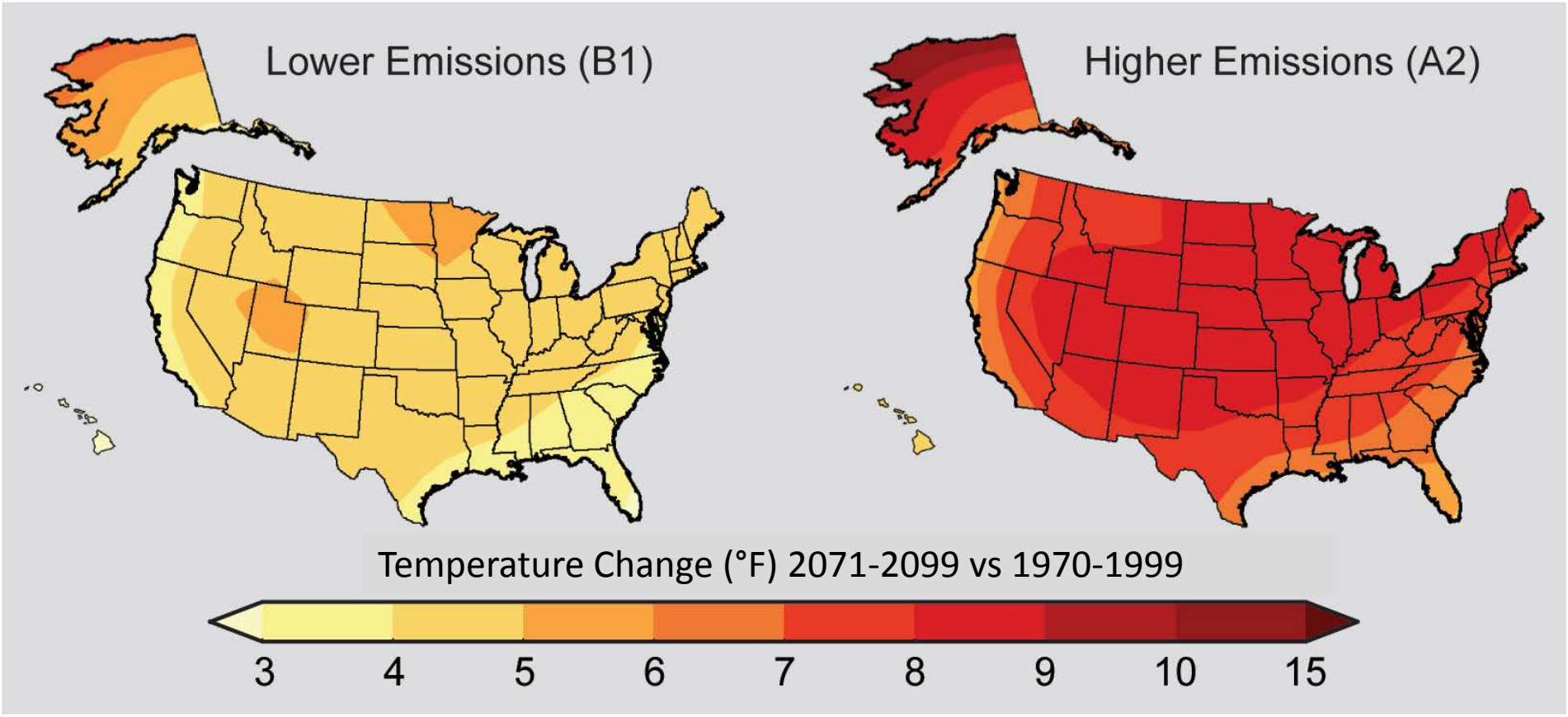
Results of the 3rd NCA

- "Actionable science" showing how climate change is already affecting people where they live and work, what can be expected going forward, and what kinds of actions can reduce vulnerability and harm
- Underscores and updates findings of previous studies:
  - Global climate is changing in unnatural ways
  - Human activities are the main cause
  - Harm is happening now
  - How much more harm occurs depends on what we do
- Provides unprecedented granularity on changes and impacts by geographic regions and economic sectors

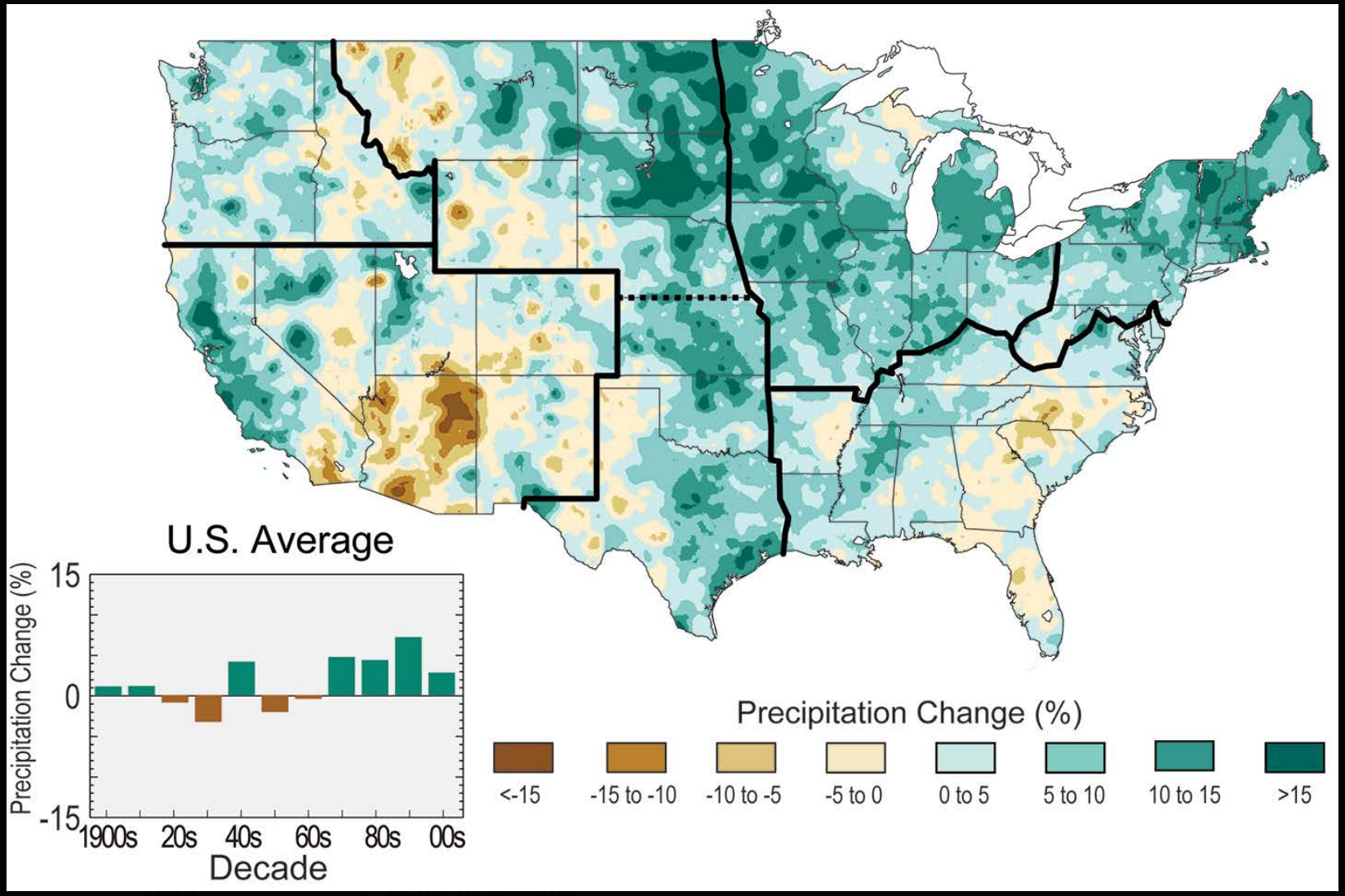
Observed U.S. Temperature Change



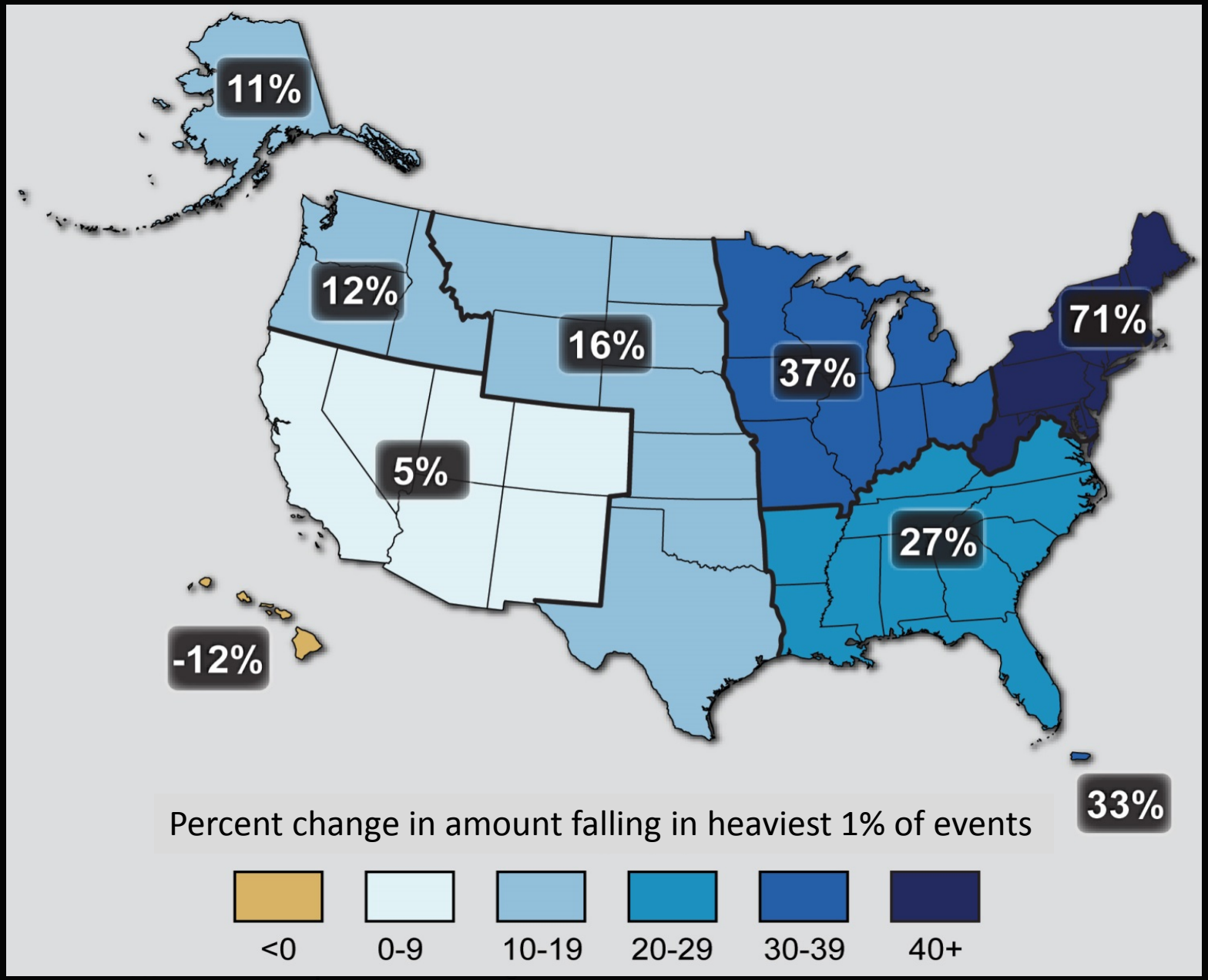
Projected Temperature Change



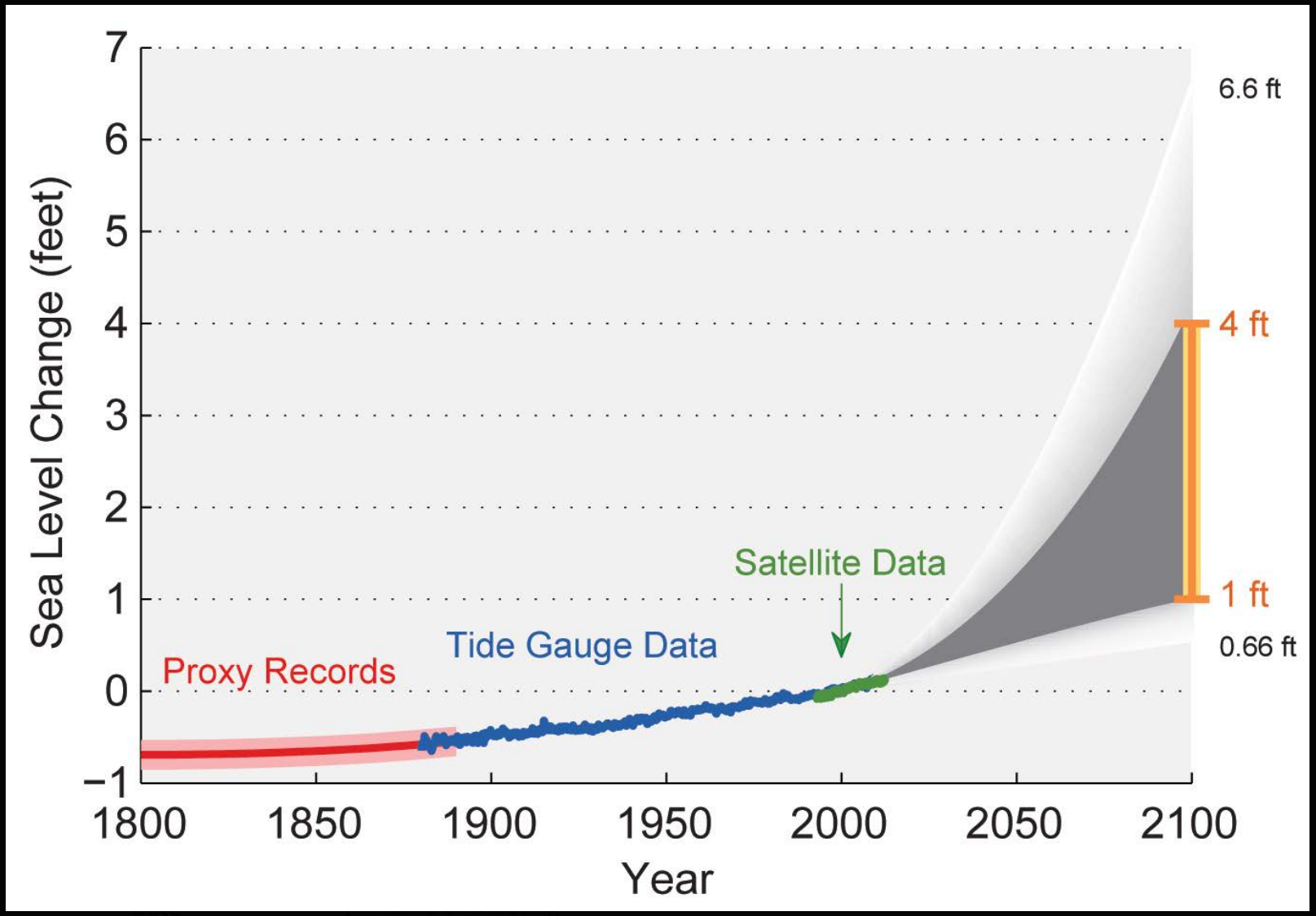
Observed U.S. Precipitation Change



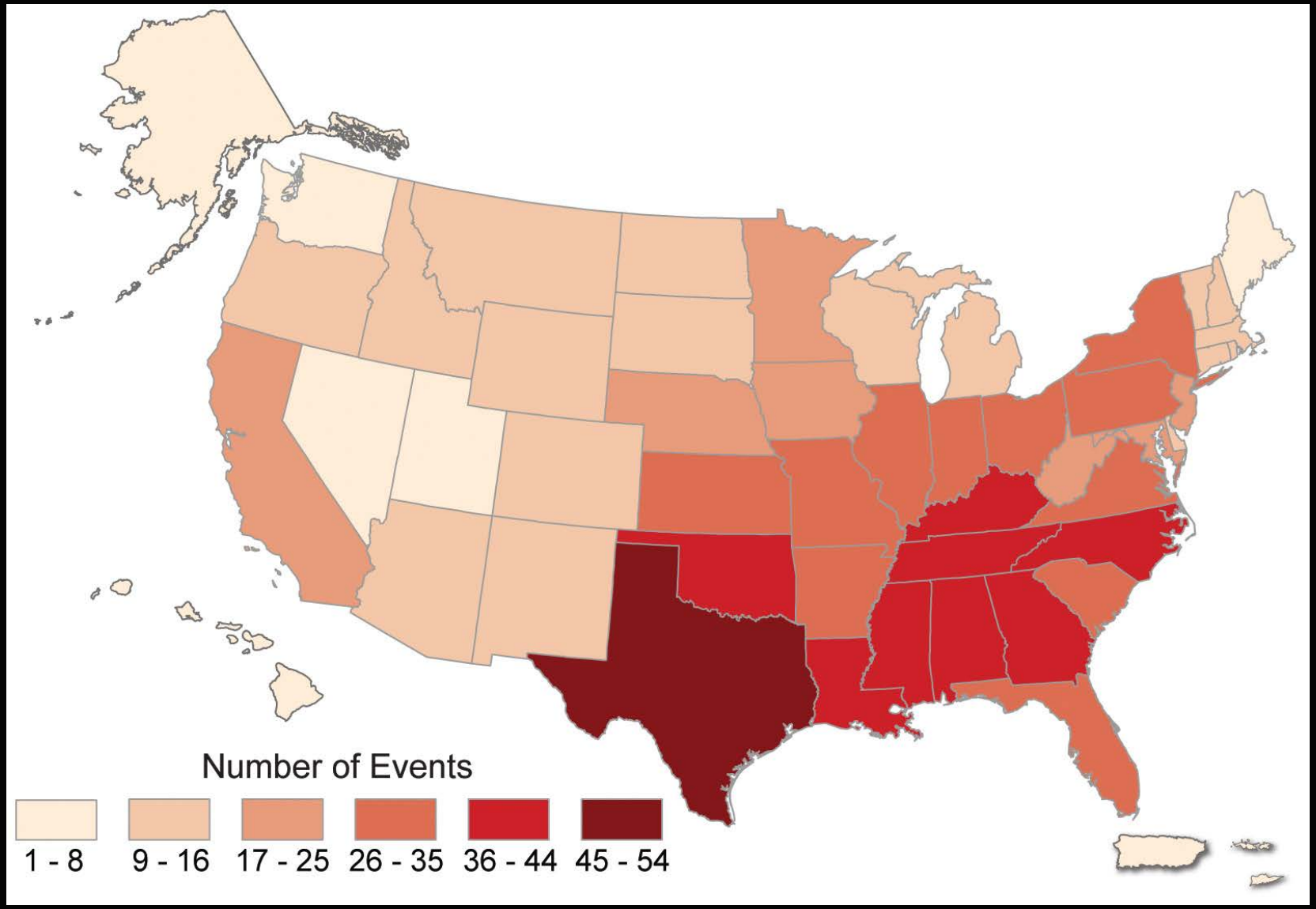
Observed Changes in Very Heavy Precipitation



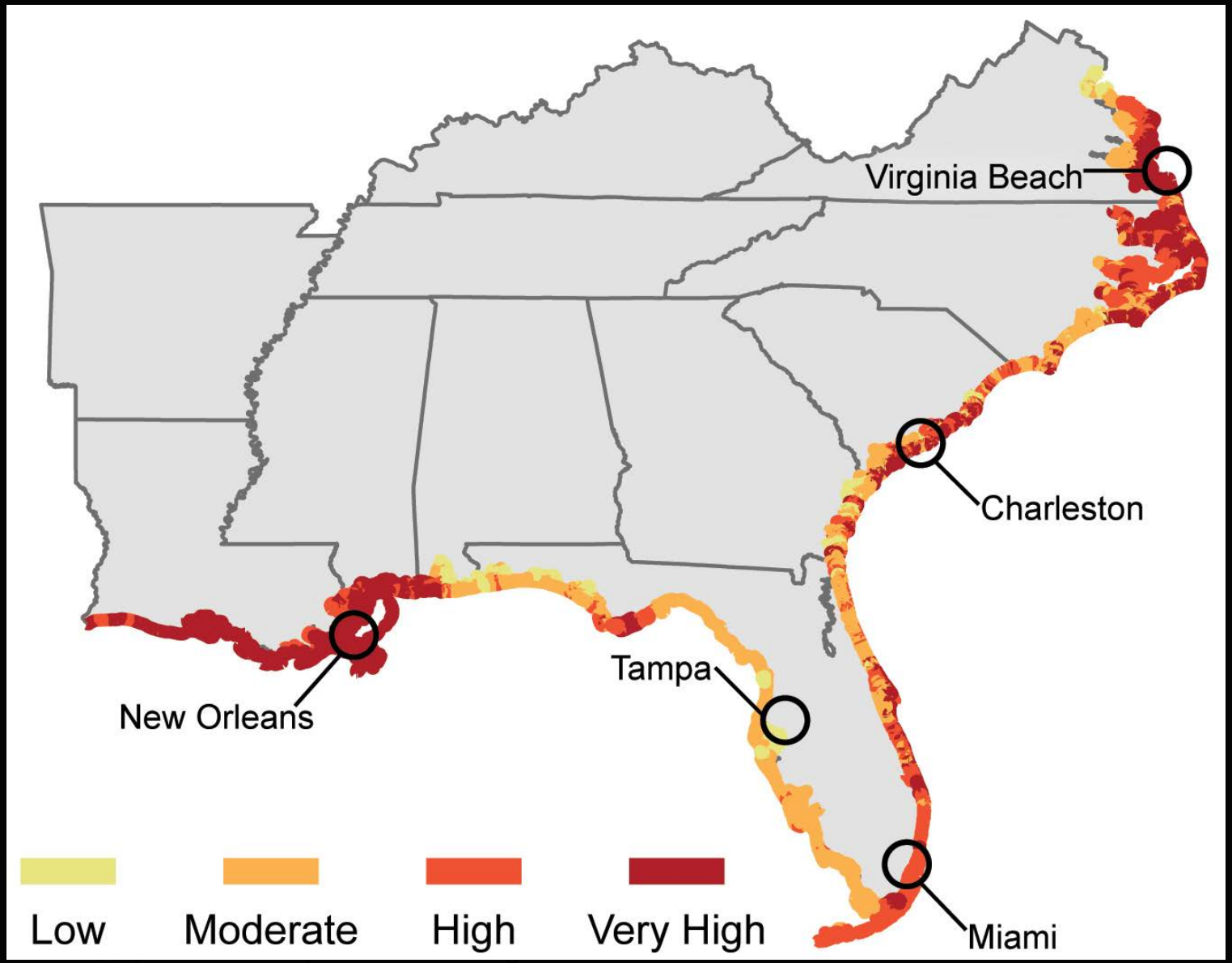
Past and Projected Changes in Global Sea Level



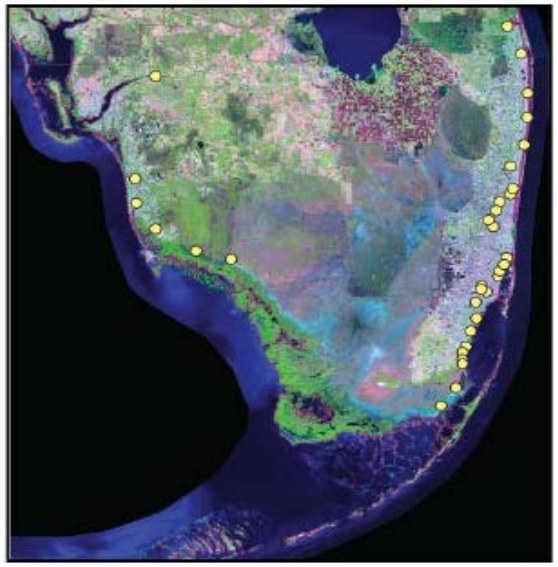
Billion Dollar Weather/Climate Disasters 1980-2012



Vulnerability to Sea Level Rise



Unique Vulnerability of South Florida



Actions to Reduce Harm from Current and Future Climate Change

Mitigation

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Adaptation

FEMA photo by Wendell A. Davis Jr.

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Opportunities for Connecting Science and Decision Making

- Efforts like the National Climate Assessment provide a platform of information that can support policy and planning

- There is a need for interdisciplinary and creative approaches that connect scientists and decision makers through mutual learning and shared production of relevant knowledge

- Decision-support processes should take into account the values and goals of stakeholder communities, evolving scientific information, and perceptions of risk

Importance of Regional Coordination

Photo by Armando Rodriguez, Miami-Dade County

- Sharing best practices, learning by doing, and iterative and collaborative processes that include stakeholder involvement can help support progress
- Many opportunities exist for fostering regional cooperation on science, policy, and planning
- Southeast Florida Regional Climate Change Compact was highlighted as a model of success in the NCA

See the rest of the report at

http://nca2014.globalchange.gov