

SOUTH CAROLINA

CLIMATE CHANGE IMPACTS



Excess heat, major storms, and coastal and inland flooding have already impacted South Carolina, and pose growing challenges to many aspects of life. Human health, food security, and infrastructure will be increasingly compromised.

ALREADY OBSERVED CHANGES

ANTICIPATED FUTURE CHANGES

RISKS TO SOCIETY



The number of **nights above 75°F** in the Southeast U.S. have **doubled** since the 1980s.

Some cities, such as Columbia, SC, are experiencing **2 more weeks** per year of **days above 95°F**.

South Carolina is projected to observe **four times** as many **heat wave days** per year by midcentury.

Charleston is expected to experience **74 more dangerous heat days** by midcentury.

Mosquito season in South Carolina is now over a month longer than it was in the 1980s.

Agriculture is impacted by a lack of nighttime cooling.



Hurricanes in the Atlantic have been **stronger** in the past couple of decades than during the 1970s/80s.

The number of **coastal flood days** in Charleston has more than **quadrupled** since the 1950s – 80% have been attributed to climate change.

Sea level rise is projected to increase up to **7 feet** in Charleston by the end of the century.

By midcentury, a **100-year flood** in Charleston may become **9 times more likely**.

South Carolina has nearly **230,000 residents at risk** of a 100-year coastal flood.

By 2050, South Carolina's coastal flood threat is projected to **increase by 25%**, putting an additional 55,000 people in the 100-year coastal floodplain.



Heavy downpours have increased by 27% in the southeastern U.S. since the 1950s.

Charleston experienced all-time **record high tide flood** occurrences in 2015 and 2016.

South Carolina's **inland flooding threat** is projected to **increase by 30%** by midcentury.

Flood events in Charleston have been increasing, and by 2045 the city is projected to face nearly **180 tidal floods per year** in comparison to 11 in 2014.

Over **200,000 people** in South Carolina live in **flood-prone areas**.

Record flooding in South Carolina due to extreme rainfall events has already **cost billions of dollars and dozens of lives**. These events are expected to intensify.

For sources of information, please visit: www.edf.org/climateimpactsources

*Anticipated future changes are for scenarios without climate action



EXPECTED DAMAGES

IN SOUTH CAROLINA BY 2100 WITHOUT CLIMATE ACTION

- At least 1,000 additional deaths per year
- 20 counties currently home to nearly 3 million people expected to see 25 to 65% decrease in major crop yields relative to 2012 levels
- Nearly all counties are each expected to spend 10% more on energy relative to 2012 levels, for a total of 4.6 million people