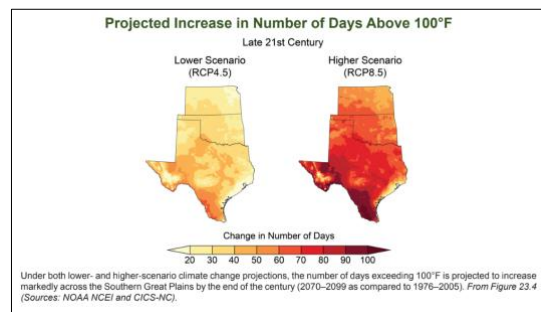


Regional Climate Models Resource

Fourth National Climate Assessment (NCA)

In 2018, the [Fourth National Climate Assessment](#) was released. This is a scientific report outlining predictions and models for various regions in the United States. Below you can find a summary of key climate impacts for each region, a link to the executive summary for each region, quick links to key figures, as well as links to the full text of each regional chapter of the fourth national climate assessment. State-specific climate summaries can be found [here](#).



<p>Northeast <i>Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Delaware, Maryland, West Virginia</i></p>	<ul style="list-style-type: none"> • Less distinct seasons will have an adverse effect on regional tourism and rural industries • Milder winter and early spring will alter ecosystems • Warmer ocean temperatures and ocean acidification will affect marine environment (fishing capacity) • Regional adaptation to climate change via policy has started in this region • Metropolitan areas on coasts will be affected by sea-level rise and population density <p>Northeast Executive Summary</p> <p>Key Figures:</p> <ul style="list-style-type: none"> • Figure 18.3: Lengthening of the Freeze-Free Period • Figure 18.7: Coastal Impacts of Climate Change • Figure 18.4: Change in Sea Surface Temperature on the Northeast Continental Shelf • Figure 18.11: Observed and Projected Impacts of Excess Heat on Emergency Room Visits in Rhode Island
<p>Southeast <i>Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Tennessee, Kentucky</i></p>	<ul style="list-style-type: none"> • Urban infrastructure at risk from coastal flooding and increasing population • Increase to vector-borne (mosquito) diseases will occur due to increase in warmer temperatures and water • Extreme rainfall events will impact agriculture • Ecosystems will be impacted by variability in seasonal temperatures and extreme weather patterns • Increase in frequency of tornadoes, large -scale floods, and hurricanes <p>Executive Summary</p> <p>Key Figures:</p> <ul style="list-style-type: none"> • Figure 19.1: Historical Changes in Hot Days and Warm Nights • Figure 19.3: Historical Change in Heavy Precipitation • Figure 19.2: Historical Change in Freeze-Free Season Length • Figure 19.5: Projected Number of Warm Nights • Figure 19.7: Annual Number of High Tide Flooding Days

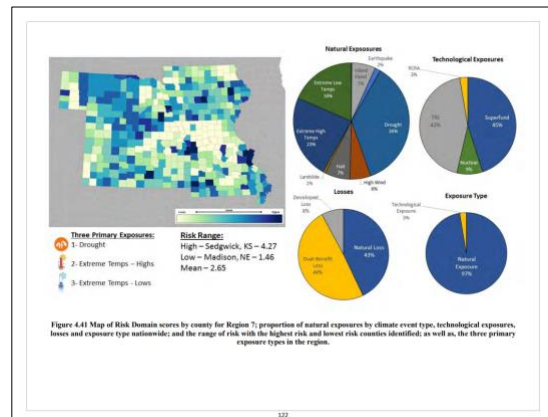
<p>Midwest Minnesota, Iowa, Missouri, Illinois, Wisconsin, Michigan, Indiana, Ohio</p>	<ul style="list-style-type: none"> • Agricultural industries will be impacted by weather patterns, causing an increase in pests and quality of stored grain • Invasive species and pests will impact the natural tree species and forest ecosystems • Poor air quality, extreme high temperature events, and heavier rainfalls • Key crops of corn and soybeans and their growth/reproduction at risk from high temperature events • Great Lakes ecosystems will be affected by changes in ice cover and water temperature <p>Executive Summary Key Figures:</p> <ul style="list-style-type: none"> • Figure 21.6: Coldwater Fish at Risk • Figure 21.8: The Changing Great Lakes • Figure 21.9: Projected Changes in Ozone-Related Premature Deaths
<p>Northern Great Plains Montana, Wyoming, Nebraska, South Dakota, North Dakota</p>	<ul style="list-style-type: none"> • Water availability and quality will be impacted by changes in precipitation patterns • Agriculture and livestock will be impacted by water availability and temperature shifts • Indigenous peoples, who live more connected to land, will experience lifestyle changes and their capacity to self-sustain will be negatively impacted • Energy infrastructure centered in this region will be at risk with impact to human sustainability <p>Executive Summary Key Figures:</p> <ul style="list-style-type: none"> • Figure 22.2: Projected Changes in Very Hot Days, Cool Days, and Heavy Precipitation • Figure 22.4: Reductions in Grassland Area in the Prairie Pothole Region
<p>Southern Great Plains Kansas, Oklahoma, Texas</p>	<ul style="list-style-type: none"> • Infrastructure at risk due to increasing temperature, precipitation events, and sea-level rise (especially on Texas Gulf Coast) • Ecosystems impacted by increasing temperature, precipitation variability, increasing wildfire frequency, and drought • Increased disease risk • Increased risk of dangerous severe weather events <p>Executive Summary Key Figures:</p> <ul style="list-style-type: none"> • Figure 23.4: Projected Increase in Number of Days Above 100°F • Figure 23.1: Monitoring Precipitation Across the Southern Great Plains

<p>Northwest Idaho, Oregon, Washington</p>	<ul style="list-style-type: none"> ● Natural resource economy and indigenous peoples dependent on those natural resources will be affected by changing temperature and weather patterns ● Increased frequency of wildfires ● Infrastructure, including regional hydropower, could be impacted by flooding, landslides, wildfire, drought, and heatwaves ● Access to water in certain areas could be impacted <p>Executive Summary</p> <p>Key Figures:</p> <ul style="list-style-type: none"> ● Figure 24.2: Climate Change Will Impact Key Aspects of Life in the Northwest ● Figure 24.12: Single-Source Water Systems in Washington ●
<p>Southwest Colorado, New Mexico, Arizona, Utah, Nevada, California</p>	<ul style="list-style-type: none"> ● Water resources could be severely, possibly critically, impacted by increasing temperature and droughts ● Coastal regions (California) impacted by coastal flooding and ocean acidification ● Ecosystems will be impacted, both in desert, temperate, and coastal regions ● Agriculture and food access impacted by lack of irrigation and increasing temperatures <p>Executive Summary</p> <p>Key Figures:</p> <ul style="list-style-type: none"> ● Figure 25.4: Climate Change Has Increased Wildfire ● Figure 25.3: Severe Drought Reduces Water Supplies in the Southwest ● Figure 25.1: Temperature Has Increased Across the Southwest ● Figure 25.5: Sea Level Rise ● Figure 25.9: Projected Shift in Agricultural Zones ● Figure 25.10: Projected Increases in Extreme Heat

Climate Resilience Screening Index (CRSI) - EPA

This report outlines the risk posed to every county in the United States for localized meteorological events, certain natural hazards, and the resilience to those hazards, and the increasing risks posed by climate change. Contained in the report are the five factors considered in creating the index and a region by region assessment of resilience. These findings are shown as maps, graphs of multiple types, and data tables.

The full CRSI report can be found [here](#). Begin by reading the Summary (pg. 12) and the Conceptual Framework (pg. 32) before diving into the regional chapters.



REGION	STATES	PAGE
Region 1	Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island	81
Region 2	New York, New Jersey	90
Region 3	Pennsylvania, Maryland, Delaware, Virginia, West Virginia	96
Region 4	North Carolina, South Carolina, Georgia, Alabama, Kentucky, Tennessee, Mississippi, Florida	102
Region 5	Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota	108
Region 6	Arkansas, Louisiana, Texas, Oklahoma, New Mexico	114
Region 7	Iowa, Missouri, Kansas, Nebraska	120
Region 8	North Dakota, South Dakota, Montana, Wyoming, Colorado, Utah	126
Region 9	California, Nevada, Arizona, Hawai'i	132
Region 10	Washington, Idaho, Alaska	138

Other Supporting Resources

[What Will Climate Feel Like in 60 Years? Interactive Map](#)

This interactive map designed by Matt Fitzpatrick outlines the predicted temperature variation for certain cities in North America by connecting them to the current temperature average of another city.

[U.S. Coastal Property at Risk from Rising Seas Interactive Website](#)

Produced by the Union of Concerned scientists, this site has multiple interactive maps that highlight certain coastal regions and provide risk assessment and economic impacts to real estate located in these regions.

[Climate Visualisation Resources](#)

An open resource collection from the U.K.-based Climate Lab Book of various maps, interactive and informative websites and articles on climate change. They focus on providing a visual representation for the viewer on various components of climate change.

[Fourth National Climate Assessment](#)

The Fourth National Climate Assessment also offers an informational section that provides an in-depth look at parts of our environment and civilization that are impacted by a changing climate.

National Climate Assessment focus topics can be found using the following links:

- [Our Changing Climate](#)
- [Water](#)
- [Energy Supply, Delivery & Demand](#)
- [Land Cover & Land-Use Change](#)
- [Forests](#)
- [Ecosystems, Ecosystem Services, & Biodiversity](#)
- [Coastal Effects](#)
- [Oceans & Marine Resources](#)
- [Agriculture & Rural Communities](#)
- [Built Environment, Urban Systems, & Cities](#)
- [Transportation](#)
- [Air Quality](#)
- [Human Health](#)
- [Tribes & Indigenous Peoples](#)
- [Climate Effects on U.S. International Interests](#)
- [Sectoral Interactions, Multiple Stressors, & Complex Systems](#)