

Climate Change Indicators in the United States

www.epa.gov/climate-indicators

June 2021

EPA has launched a major update, expansion, and enhancement of its landmark <u>Climate Change Indicators</u> in the <u>United States</u> website, including:

- Continued focus on health and environmental impacts of climate change in the U.S.
- 12 new indicators (for a total of 54)
- Updated data for all existing indicators (through 2020 where available)
- Climate Indicators Explorer with interactive visualizations
- More than 40 interactive climate indicator maps available on EPA's GeoPlatform
- Story maps exploring specific region- to community-level changes

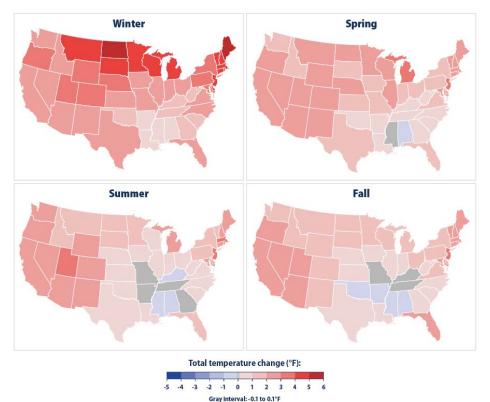
A Few Indicator Key Findings

- Heat waves are occurring more often than they used to in major cities across the United States.
- Flooding is becoming more frequent along the U.S. coastline and the rate of increase is accelerating at most locations along the East and Gulf Coasts.
- In conjunction with warming ocean waters, several economically important fish and shellfish species are shifting northward and moving to deeper waters.

New and Updated Indicators

EPA's climate change indicators are based on observations over time and are based on peerreviewed, publicly available data. The **12 new indicators** describe trends related to observed changes in temperature; precipitation; extreme events; snow, ice, and permafrost; and ecological responses to climate change. Examples include trends in residential energy use, heat waves in U.S. cities, cold-related deaths, glaciers in Glacier National Park, wildfire season, and Great Lakes ice cover. All other indicators are **now updated** with new data, through 2020 where available.

Change in Seasonal Temperatures by State, 1896–2020

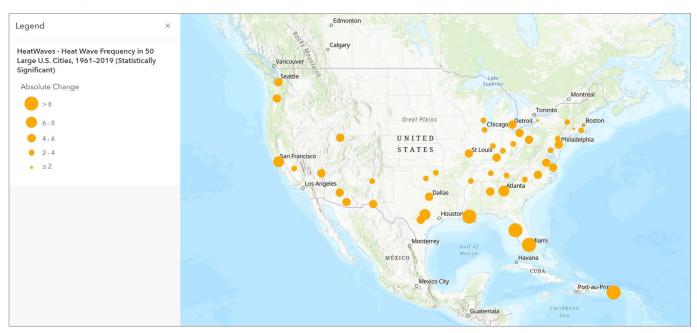


Interactive Visualizations and Web Maps

The Climate Indicators Explorer is a new feature that allows users to filter, search, and interact with indicator graphs. The Climate Indicators Explorer includes 18 indicators and special features, with more to be added in 2021 and beyond.

EPA has also published more than **40 interactive maps** related to climate indicators, made publicly available through the Agency's online GeoPlatform. Users can interact with the maps, access data and documentation, and use the map layers with other GIS mapping tools.

Users can explore the data by panning, zooming, and clicking points and features in the maps to reveal details or site-specific information. Indicator maps can also be combined with other layers to show relationships between multiple climate-related variables, population demographics, or economic data, for example.



Community Connections Story Map

EPA also developed a series of **topic-based interactive stories** that allow users to visualize and explore regional and local indicators in more detail. Example topics include land loss along the Atlantic coast; changes in the timing of cherry blossoms in Washington, DC; trends in temperature and drought in the Southwest; and changes in Alaskan river ice breakup dates over time.



Resources

EPA's Climate Indicators Explorer
Climate Indicator Web Maps
Community Connections Story Map
Climate Indicators Overview Story Map

www.epa.gov/climate-indicators
Contact us at ClimateIndicators@epa.gov