



## Conclusion

**T**he indicators in this report present compelling evidence that the composition of the atmosphere and many fundamental measures of climate in the United States are changing. These changes include rising air and water temperatures, more heavy precipitation, and, over the last several decades, more frequent heat waves and intense Atlantic hurricanes. Assessment reports from the Intergovernmental Panel on Climate Change and the U.S. Global Change Research Program have linked many of these changes to increasing greenhouse gas emissions from human activities, which are also documented in this report.

Analysis of the indicators presented here suggests that these climate changes are affecting the environment in ways that are important for society and ecosystems. Sea levels are rising, snow cover is decreasing, glaciers are melting, and planting zones are shifting (see Summary of Key Findings on p. 4). Although the indicators in this report were developed from some of the most complete data sets currently available, they represent just a small sample of the growing portfolio of potential indicators. Considering that future warming projected for the 21<sup>st</sup> century is very likely to be greater than observed warming over the past century,<sup>1</sup> indicators of climate change should only become more clear, numerous, and compelling.

As new and more complete indicator data become available, EPA plans to update the indicators presented in this report and provide additional indicators that can more comprehensively document climate change and its effects. Identifying and analyzing indicators will improve our understanding of climate change, validate projections of future change, and, importantly, assist us in evaluating efforts to slow climate change and adapt to its effects. Looking ahead, EPA will continue to work in partnership with other agencies, organizations, and individuals to collect useful data and to craft informed policies and programs based on this knowledge.