



## NATIONAL CLIMATE ASSESSMENT: THE MIDWEST

*The National Climate Assessment is the most comprehensive report on climate change impacts in the United States. Here are a few things we learned from the assessment about impacts in the Midwest region: Minnesota, Wisconsin, Michigan, Ohio, Indiana, Illinois, Missouri, and Iowa.*

### Heat

- Climate change is happening now, and is primarily caused by carbon pollution from fossil fuels like coal, oil, and gas. How much the climate changes in the future is up to us.
- The Midwest is getting warmer. If carbon emissions continue to increase, regional temperatures could be up to 8.5 degrees Fahrenheit higher by the 2080s — a dramatic change likely to bring harmful and unforeseen consequences.
- The Midwest growing season has lengthened by almost two weeks since 1950. Longer growing seasons will increase the yields of some crops over the next few decades, but these benefits will be increasingly offset by the devastation from extreme weather. In the long run, climate change impacts are expected to make agriculture less productive.
- Already, the early arrival of spring weather tricks some fruit trees into blooming early, making them vulnerable to late season cold snaps. For example, Michigan's \$60 million tart cherry crop was decimated in 2002 and 2012 by early springs.
- Heat waves are happening more often in the Midwest and getting more severe. By the end of the century, thousands more people could die from heat stress every year in Chicago.
- The Great Lakes are getting warmer, increasing the risk of toxic algae blooms that pose a health hazard to humans and fish.

### Storms and Floods

- Midwest rainstorms and snowstorms are growing more intense. Since 1958, the amount of very heavy rain and snow has increased about 45 percent.
- Many Midwest cities have drainage systems that combine storm water and sewage, which overflow during heavy storms. By the end of the century, sewer overflows into Lake Michigan could increase 120 percent because of heavy rain.
- Flooding has increased in many parts of the Midwest. Flooding is expected to increase transportation, human health, and agriculture.

### Droughts

- The combination of heat and more rain-free days will increase the risk of drought in the region.
- In 2012, severe drought brought the Missouri and Mississippi Rivers to near-record lows, severely affecting barge traffic — and the farmers trying to ship their crops.