

## **Long Hot Summer**

Earth sciences professor examines our progress toward sustainable communities

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### **Transcript**

[G. Filippelli] Our understanding of warming and climate change are supported by thousands of scientific studies. Scientists are very objective when they look at these studies and look at the data, and so far we've seen that in fact, the earth has warmed. It's warmed at a much greater rate than it's ever warmed in earth's history.

These records come from the ocean, come from satellites, come from the land. I think what happens sometimes is people see the current day's weather, or the current year's weather as an indication of whether global conditions are cooling or warming. If you look from the global perspective, we've had our hottest summers ever over the last 10 years.

Global warming will have pretty large effects in the midwest, and that is because of temperature increases and changes in rainfall. We talk a little bit about a city, like Indianapolis. One of the byproducts of global warming is going to be summers that are increasingly warm, actually increasingly hot; we're gonna have up to 28 days that are over 100 degrees Fahrenheit in the summer at the end of the century. That causes a lot of mortality, what we call heat deaths, heat-related deaths, as well as a lot of morbidity. Asthma increases dramatically, and this is especially true in cities, because cities don't cool down as well at night, because of all the hard surfaces. They stay really warm.

To be realistic, we have to have two mindsets: one is that we need to reduce carbon emissions and plan cities better. The way we do that is to make cities more efficient and make buildings more efficient. Individual citizens have to press for access to bicycle routes and walking routes, have to live in more sustainable parts of the city. There are many parts of Indianapolis, as well as other cities, that are very sustainable. You can live within walking distance of markets. You can live within very easy distance of roadways like the Monon trail, which is a great advantage for Indiana. That's one thing we have to do is press for this, and choose to live in sustainable communities.