

THE WHITE HOUSE

The Threat of Carbon Pollution: South Dakota

We have a moral obligation to leave our children a planet that's not polluted or damaged, and by taking an all-of-the-above approach to develop homegrown energy and steady, responsible steps to cut carbon pollution, we can protect our kids' health and begin to slow the effects of climate change so we leave a cleaner, more stable environment for future generations. Climate change impacts including severe weather, asthma attacks, and prolonged allergy seasons are affecting our security, our economy, and our communities. In 2012 alone, the cost of weather disasters exceeded \$110 billion in the United States, and climate change will only increase the frequency and intensity of these events. Today, we already set limits for arsenic, mercury and lead, but we impose no limits on how much carbon pollution our power plants release. Carbon pollution is contributing to a higher risk of asthma attacks and more frequent and severe storms, floods, heat waves, and wildfires, driving up food prices and threatening our communities. The President's plan is a comprehensive approach to cutting the pollution that causes climate change and threatens public health, setting us on a path to make our communities healthier, safer, and more resilient.

THE IMPACT OF POLLUTION AND EXTREME WEATHER SOUTH DAKOTA

In 2011, power plants and major industrial facilities in South Dakota emitted more than 5.5 million metric tons of carbon pollution—that's equal to the yearly pollution from more than 1 million cars.

Recent incidents provide a reminder of the impacts to our public health and costs due to extreme weather in South Dakota. Although we cannot say that climate change is responsible for any individual event, climate change is already increasing our risks from these events.

- There have been 11 disaster declarations in South Dakota since 2010 for events including fires, drought, severe storms and flooding.
- While the average annual temperature increase in the United States is 1°F, in the Dakotas temperature increases have approached 5.5°F. Unusually warm and humid conditions in 2011 killed 1,700 head of cattle in South Dakota.

ANTICIPATED CLIMATE-RELATED RISKS IN THE GREAT PLAINS

Climate change has increased temperatures across the Great Plains since the 1960s, particularly in the northern states. The hotter, drier conditions are already contributing to water resource stress, particularly in the southern portion of the region. In the coming decades, lack of water will constrain development, stress natural resources, and increase competition for water among communities, agriculture, energy production, and wildlife and natural ecosystems. In 2011, heat and drought contributed to agricultural losses across the Midwest and Great Plains, and the northern Great Plains dealt with significant flooding. Extreme events like floods and droughts are expected to become more common with climate change. Other agricultural impacts of rising temperatures include changes in insect pests and the northward shift of optimal zones for crops. As young adults move out of small, rural communities, the towns are increasingly populated by a vulnerable demographic of very old and very young people, placing them more at risk for health issues than urban communities. Serious

health concerns are also associated with severe flooding, projected to increase in the future, including greater incidence of waterborne diseases. Water quantity and quality issues are expected to exacerbate existing economic and social issues for the 65 Native American tribes in the Great Plains, where populations on rural tribal lands have limited capacities to respond to climate change.

CUTTING CARBON POLLUTION AND INCREASING RESILIENCE IN SOUTH DAKOTA

Climate change is a long-term problem, but we can make substantial progress through a series of steady and responsible steps. The President's plan builds from progress already underway to work with states, local communities, and the private sector to reduce carbon pollution and to prepare our Nation for the impacts that cannot be avoided. Since 2009, President Obama has taken a number of common sense measures to combat carbon pollution, including:

- ***Investing in Clean Energy***: During the President's first term, the United States more than doubled its use of renewable energy from wind, solar, and geothermal sources. In South Dakota, renewable energy generation from these sources increased more than 1,100 percent. Since 2009, the Administration has supported tens of thousands of renewable energy projects throughout the country, including more than 10 in South Dakota, generating enough energy to power more than 90,000 homes and helping South Dakota meet its own goal of generating 10 percent of its electricity from renewable energy sources by 2015.
- ***Improving Efficiency***: Using less energy to power our homes, businesses and vehicles is critical to building a clean and secure energy future. President Obama has made essential investments in research and development for energy efficiency advances, and set new standards to make the things we use every day – from cars to microwaves – more efficient.
 - President Obama established the toughest fuel economy standards for passenger vehicles in U.S. history. These standards will double the fuel efficiency of our cars and trucks by 2025, saving the average driver more than \$8,000 over the lifetime of a 2025 vehicle and cutting carbon pollution.
 - Since October 2009, the Department of Energy and the Department of Housing and Urban Development have jointly completed energy upgrades in more than one million homes across the country, saving many families more than \$400 on their heating and cooling bills in the first year alone.
- ***Preparing Communities for the Consequences of Climate Change***: The Obama Administration has worked since its earliest days to strengthen the Nation's resilience to climate change impacts, including investing in critical science and tools, developing the first-ever Federal agency climate adaptation plans, and directly partnering with communities. For example, the US Department of Agriculture has helped South Dakota save water and increase soil quality by providing research and support for farmers to return to dryland farming. Kansas State University's Center for Sustainable Agriculture and Alternative Crops has also helped advance this effort across the southern Great Plains.