

## **The Threat of Carbon Pollution: Massachusetts**

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, prolonged allergy seasons, and sea-level rise 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 Climate 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 IN MASSACHUSETTS**

In 2011, power plants and major industrial facilities in Massachusetts emitted more than 18 million metric tons of carbon pollution—that's equal to the yearly pollution from more than 3.8 million cars.

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

- Every summer, 5 to 20 days now reach over 32°C (90°F), nearly double of what it was 45 years ago.
- In 2011, tropical storm Irene affected Massachusetts costing over \$32 million in federal aid to help families and communities recover. In 2011, the total cost associated with property damage due to hazardous weather events was \$312.6 million.
- In Massachusetts, there were over 10,200 hospital admissions for asthma in 2011, with an average charge of over \$11,000 for each stay.
- In 2009, there were 511 emergency room visits in Massachusetts due to heat stress.
- Changing temperature and precipitation patterns can affect the life cycle and distribution of insects, many of which transmit disease that already pose problems to public health in Massachusetts. In 2010, there were 2380 cases of Lyme disease in the state.

### **ANTICIPATED CLIMATE-RELATED RISKS IN THE NORTHEAST**

Northeast states can expect more climate change related heat waves – with significantly more days above 90°F – and flooding from sea level rise and extreme precipitation events. Even low-end projections anticipate that historical 100-year coastal floods will happen as often as every 22 years by the end of the century. There is \$2.3 trillion of insured coastal property at risk in New York State alone. Northeasterners are already experiencing increased heavy precipitation. Extreme heat and declining air quality are expected to increase risk associated with respiratory problems and heat stress, both of which pose increasing problems for human health, especially in urban areas, and can result in increased hospitalizations and even

premature death. Rising temperatures and carbon dioxide concentration increase pollen production and prolong the pollen season, increasing health risks for people with allergies. Agricultural production, including dairy, fruit, and maple syrup, are likely to be adversely affected as favorable climates shift, while the center of lobster fisheries is projected to continue its northward shift and the cod fishery on Georges Bank is likely to be diminished.

## CUTTING CARBON POLLUTION AND INCREASING RESILIENCE IN MASSACHUSETTS

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 Massachusetts, renewable energy generation from these sources increased more than 20 percent. Since 2009, the Administration has supported tens of thousands of renewable energy projects throughout the country, including more than 2,700 in Massachusetts, generating enough energy to power more than 150,000 homes and helping Massachusetts meet its own goal of generating 15 percent of its electricity from renewable energy sources by 2020, and another one percent each year after.
- ***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.
  - As part of the President's Better Buildings Challenge, the commonwealth of Massachusetts committed to reducing energy intensity 20 percent by 2020 in 65 million square feet of its buildings. Boston and Medford committed to the same goal for a combined 17.37 million square feet of city buildings. Worcester pledged to reduce energy intensity 20 percent in just three years.
- ***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, with support from Centers for Disease Control and Prevention, the Massachusetts Health Department is working with the state Department of Education to install air conditioning in schools designated as emergency evacuation sites so they can be used as cooling shelters during extreme heat events.