

Back in 1876, Mark Twain aptly remarked “One of the brightest gems in the New England weather is the dazzling uncertainty of it.” Our location halfway between the equator and the North Pole and sandwiched between the Appalachian Mountains and the Atlantic Ocean makes our weather more variable than most other places on Earth. New Hampshire’s culture, environment, and economy are fundamentally integrated with our seasonal climate that traditionally and reliably served up resplendent summers, crisp autumns with spectacular fall foliage, a white Christmas and winter sports, and the eternal hope of spring. Our citizens have adapted to changing economic and climatic conditions to keep New Hampshire consistently ranked near or at the top as a state with the best quality of life.<sup>1</sup>

New Hampshire’s climate has experienced substantial changes over the past half century<sup>2</sup>. Over this period, the northeastern United States has experienced a region-wide winter warming trend of almost 4°F. The number of days with snow on the ground has decreased an average of one week. Pond hockey and ice fishing have taken a hit as ice breaks up on our lakes more than a week earlier than it used to. Peak snowmelt runoff in the spring now occurs 7–10 days earlier in northern New England rivers. Increasing extreme rainfall events and flooding, rising seas, and an influx of pests (Lyme-disease-bearing ticks at the top of the list) have emerged as the latest and potentially most serious challenges to our health and our quality of life.

We have also endured a significant increase in severe storms. This has resulted in flooding and power outages across the region, including major events in 2005, 2006, 2007, 2010 and 2011. From 1986 to 2004, presidentially declared disasters in the state of New Hampshire cost the federal government on average \$3.5 million per year; from 2005 to 2008, they cost an average of \$25 million per year<sup>3</sup>. In addition, power outages that used to last a day or two now commonly extend over a week or two. Perhaps the most insidious change has been relative sea level, which has risen seven inches during the past century. This means more coastal flooding as storms move onshore, especially when a nor’easter occurs at high tide.

These shifts in New Hampshire’s climate are clearly connected to changes in global climate. Unfortunately much of the change is accelerating. Given the inertia of the climate system, the most we can do now is decrease the rate of climate change. As the global climate continues to evolve, we will face new challenges to maintain our health, the prosperity of our state, and our quality of life. The US National Academy of Sciences together with all major scientific societies has affirmed that most of the observed increase in global temperatures over the past six decades is due to increases in anthropogenic greenhouse gas emissions. In its recent Quadrennial Defense Review the Pentagon stated that “climate change, energy security, and economic stability are inextricably linked.”<sup>4</sup>

We urge all candidates for public office at national, state, and local levels, and all New Hampshire citizens, to acknowledge the overwhelming balance of evidence for the underlying causes of climate change, to support appropriate responses to reduce the emissions of greenhouse gases, and to develop local and statewide strategies to adapt to near-term changes in climate<sup>5</sup>. Ignoring the issue of climate change places our health, our quality of life, our economic vitality, and our children’s future at risk.

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<sup>1</sup> Data from CNBC surveys: <http://www.cnbc.com/id/43344770>

<sup>2</sup> Additional information at Carbon Solutions New England: <http://carbonsolutionsne.org/>

<sup>3</sup> Values in 2009 dollars

<sup>4</sup> US Department of Defense: <http://www.defense.gov/qdr/>

<sup>5</sup> Details of mitigation and adaptation options provided in NH’s Climate Action Plan:  
[http://des.nh.gov/organization/divisions/air/tsb/tps/climate/action\\_plan/nh\\_climate\\_action\\_plan.htm](http://des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/nh_climate_action_plan.htm)

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\*The views expressed herein are those of the individual signatories, and do not necessarily represent the views of the institutions with which they are affiliated.