

Environmental Officials Release Climate Change Adaptation Report

Report includes predictions, impacts, and costs associated with climate change and suggested mitigation strategies

[Massachusetts Climate Change Adaptation Report](#)

BOSTON - Tuesday, September 27, 2011 - Massachusetts Energy and Environmental Affairs (EEA) Secretary Richard K. Sullivan Jr. today filed a report with the Legislature that provides a comprehensive overview of observed and predicted changes to Massachusetts' climate and the anticipated impacts of and potential adaptation strategies to prepare for climate change.

The first of its kind in the state, the Massachusetts Climate Change Adaptation Report was prepared by EEA and the 34-member Climate Change Adaptation Advisory Committee established under the Global Warming Solutions Act of 2008. It includes a sector-by-sector look at how climate change may impact natural resources and habitat; infrastructure; human health and welfare; local economy and government; and coastal zone and oceans. Like many other coastal states, the report finds that Massachusetts is faced with increasing sea level rise and storm surges, higher temperatures, and changes in precipitation over the course of this century - all of which could contribute to profound impacts on our coastal infrastructure and businesses, public health and natural ecosystems in coming years.

"This report provides a framework for assessing the short and long-term solutions to mitigate the effects of climate change on public health, our natural and man-made resources, and our economy and offers some important suggestions about how to prepare to meet those challenges," said Secretary Sullivan.

EEA and its agencies plan to evaluate potential strategies contained in the report and work with stakeholders to prioritize them and assess feasibility of implementation. In addition, EEA plans to form a stakeholder group that will explore mechanisms for addressing the potential impacts of climate change (such as sea level rise) as part of EEA's Massachusetts Environmental Policy Act review process

The report notes that, between 1921 and 2006, sea level rose by 22 centimeters; since 1970, our climate has warmed at an average rate of nearly 0.26°C (0.5°F) per decade; and the number of days with temperatures above 90°F nearly doubled in the last 45 years. Massachusetts is set to experience a five to ten degree increase in its average ambient temperature, and many more extreme hot summer days by 2100, according to the report, while precipitation patterns are expected to become more extreme, with more floods and more droughts. Sea surface temperatures are predicted to increase by up to eight degrees and coastal areas are expected to experience greater sea level rise and storm surges.

The report aims to provide guidance on how communities, businesses and governments can prepare for and respond to climate change effect such as these. Potential approaches include conducting vulnerability assessments of public health, physical structures and assets, natural resources and economic sectors. Data collected from these assessments would inform future planning, development and management of existing and planned resources.

"The Massachusetts Department of Public Health worked closely with EEA on this important report and is working in partnership with local health officials across the state to better prepare for the anticipated increase in heat-related illness and other public health impacts of climate change," said Commissioner John Auerbach.

"Climate change is something we, as a society, have to address," said Andrew Finton, director of science and conservation at The Nature Conservancy in Massachusetts, and a co-chair of the 'Natural Resources and Habitat' subcommittee, which worked on the report. "We have an opportunity to help our natural systems become more resilient

so they can adapt to a changing climate and continue to provide habitat, drinking water and all of the other benefits that nature provides. While work is already underway to help our communities and natural systems cope with the impacts of climate change, this report serves as a call to action to implement strategies to protect human health and welfare, insulate our economy and ensure that our natural systems can continue to meet our needs."

The report also highlights the importance of protecting existing infrastructure and development from inundation, especially structures along coasts and in flood plains, and the importance of including climate change predictions in future development and design practices. The report includes potential strategies to enhance emergency response tools, to protect and preserve natural habitats and the hydrology of watersheds, to establish redundant supply routes and to incorporate climate change projections into municipal planning.

"MassDOT continues to ensure that the Commonwealth maintains an efficient and effective transportation system in the face of projected effects of climate change on New England," said Transportation Secretary Richard A. Davey. "Our various modes of transport - roads, rail, air, and water - are critical to ensuring economic vitality, quality of life, and public safety as we help move people, goods, and services throughout the Commonwealth. We have begun to identify strategies, tools, and techniques that will help us adapt our planning, construction, maintenance, and operational functions to these long-term global environmental challenges."

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