



The New York City Department of Environmental Protection  
**CLIMATE CHANGE PROGRAM**

**Foreword**  
By Emily Lloyd

The impacts of climate change will be pervasive and profound. Most natural and man-made systems will be affected, and the City of New York's water supply, drainage, and wastewater management systems are no exception. To overcome the challenges of climate change, as stewards of the City's water systems, we at the New York City Department of Environmental Protection are placing our response to climate change at the core of our strategic and capital planning. This Report is the first in a series of reports that presents the many steps that the Department has already taken to address climate change, and it outlines the Department's initial plan of action for continuing to confront the most critical environmental issue of our time. In future reports we hope to chronicle our achievements.



In essence, the Department's plan is to adapt the City's water systems to withstand climate changes in the City and upstate watershed while simultaneously striving to help minimize those changes. First, I am working with the Department's highly-skilled planners, engineers, and operators to adapt our infrastructure so that the City is able to continue to provide water services to New Yorkers even as changes occur to temperatures, rainfall patterns, snowpack, storm intensity, and sea level. Successful adaptation will require that we rethink our traditional approach of designing infrastructure based on the weather patterns and sea level experienced in the past, and move towards a new approach of risk-based design for the range of climate conditions projected for the future. These changes can also help to improve our systems resiliency to current weather extremes. Second,

we are working to reduce the Department's greenhouse gas emissions by incorporating process improvements, energy efficiency, and renewable energy into facility planning.

The Department's response to climate change complements the goals of PlaNYC, Mayor Michael Bloomberg's plan for a greener, greater, sustainable New York. Integral to PlaNYC is a strategy for reducing water demand, preserving the first-rate quality of our drinking water, maintaining our City's water infrastructure, and improving the water quality of New York City's great harbor. The Department's Climate Change Program will help the City achieve these PlaNYC goals, and implementation of PlaNYC will make the City's water systems more resilient, thus helping the Department to ensure the reliability of vital water services despite the pressures of a changing climate. Furthermore, to assist the global community in slowing the pace of climate change, PlaNYC aims to reduce New York City government greenhouse gas emissions by 30% by 2017. The Department, which is responsible for 17% of total City government emissions, is committed to reducing its emissions to help the Mayor achieve this goal.

Addressing climate change will prove difficult. The issues are new and complex, the timing and extent of change is uncertain, and modifying large-scale infrastructure systems is expensive and takes time. But with careful planning, we can succeed. The Department is committed to minimizing climate change risk, we have the support of our visionary Mayor, and we will not be tackling the issue alone; we are cooperating with other water agencies and utilities, both nationally and internationally, to share knowledge and spur innovation. The Department has already made significant progress, but there is still much to do and the time to take action is now.

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Emily Lloyd  
Commissioner, NYCDEP