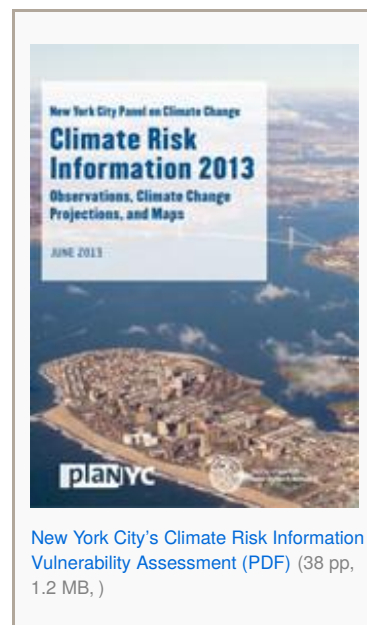


New York City Assesses Extreme Heat Climate Risk

 epa.gov/arc-x/new-york-city-assesses-extreme-heat-climate-risk

Heat waves are one of the leading weather-related causes of death in the United States. Recognizing the current and future extreme heat risk to its population, NYC decided to assess climate risk and vulnerability. To assess the risk of future extreme heat events, the New York City Panel on Climate Change (NPCC) used the most up-to-date global climate models at the time. The NPCC's Climate Risk Information Report identified a baseline (covering the period 1970-2000) of two heat waves per year on average. NYC projected the number of heat waves could increase (using the 90th percentile as the high estimate) to seven per year by 2050. Additionally, the NPCC's 2013 report states the average annual number of days over 90°F could more than triple (under the high estimate) from 18 to 57 by 2050.

NYC updated its emergency response and hazard mitigation plans as a result of its Climate Risk Information Report. New York City is continuing to refine their climate projections to better assess climate vulnerability under the best-available science. The most recent update was in the 2015 "NPCC: Building the Knowledge Base for Climate Resiliency Report," which for the first time included projections to the year 2100.



How Did They Do It?

Applicable EPA Tools

Assessed climate risk

- New York City derived temperature and precipitation projections by using a matrix of 35 Global Climate Model simulations under two Representative Concentration Pathways.

Learn more about the type of models available to assess climate risk at the US Global Change Research Programs website.

[US Global Change Research Programs website](#)

Incorporated climate risk within adaptation and response plans

- Established a city panel (New York City Panel on Climate Change) to inform its climate activities.
- Developed a Climate Adaptation Plan and updated it in 2015.
- Incorporated climate risk and vulnerability to heat events within the Hazard Mitigation Plan. (Note: New York State (NYS) Requirement §F6 requires plans developed with State Office of Emergency Management (OEM) administered funds to include climate change hazard information and strategies to address them).

EPA's Excessive Heat Events Guidebook helps communities identify current and future disaster response needs for adapting and proving resilient to extreme heat climate risk.

[Excessive Heat Events Guidebook](#)

How Did They Do It?	Applicable EPA Tools
<p>Educate residents on the threats from extreme heat and provides preparedness resources</p> <ul style="list-style-type: none"> New York created multiple resources including handouts, guides, and even an emergency preparedness mobile app to help residents prepare for extreme heat events 	<p>The Green Infrastructure Wizard Tool can help communities implement an appropriate demonstration project that increases education and awareness about the climate risk from extreme heat.</p> <p>Green Infrastructure Wizard Tool</p>
<p>Re-assessing vulnerability under the best available science</p> <ul style="list-style-type: none"> The city recently updated the vulnerability assessment, which for the first time projects climate risk out to 2100, in the 2015 report “Building the Knowledge Base for Climate Resiliency.” 	<p>CDC’s Assessing Health Vulnerability to Climate Change helps communities identify populations most at risk from extreme heat events and other climate threats.</p> <p>Assessing Health Vulnerability to Climate Change (PDF) (24 pp, 4.3 MB)</p> <p>* (This is a non-EPA resource from the Centers for Disease Control and Prevention.)</p>

Similar Cases and More Information

Extreme heat events and other weather extremes can disproportionately impact at-risk or vulnerable communities. To view a case study that identified and then actively engaged with vulnerable communities in adaptation planning for heat events, view the Chicago Heat Emergency Response. To see how a community has used green infrastructure to both reduce the impact of future extreme heat events and reduce stormwater runoff during extreme precipitation events, view Chicago Green Infrastructure to Reduce Heat.

- [Chicago Heat Emergency Response](#)
- [Chicago Green Infrastructure to Reduce Heat](#)