

# Reimagining New York for a New Reality

Since 2011, when Governor Cuomo took office, New York has suffered nine major events which were declared disasters by President Obama. In particular, Superstorm Sandy, Hurricane Irene and Tropical Storm Lee made it clear the so-called *100 year* storms are going to be a regular occurrence. Government must take action to address this new reality by looking forward and anticipating threats to our citizens and infrastructure. The Executive Budget supports a strategy to transform New York's infrastructure, transportation networks, power systems, coastal protection, weather warning system, and emergency management, to better protect the State from future extreme weather.

The State is primarily using its share of Federal funds appropriated for Sandy, Irene and Lee to implement this far-reaching program. With these resources, New York will make good on Governor Cuomo's commitment to rebuild the State's communities, homes, businesses, and infrastructure to restore our economy and mitigate similar damage from future storms.

## Recovery from the Storms: Building Back Better

New York faces special challenges in protecting its critical systems and infrastructure. Much of the infrastructure in New York City — transit and electric systems in particular — is built underground and is susceptible to damage from seawater. On Long Island, communities, power systems, wastewater systems, and fuel terminals are built along the coastline. In Upstate New York, communities and infrastructure are often built along waterways vulnerable to increasingly severe flooding. Major initiatives aimed at making our infrastructure more resilient include:

- **Harden the Electrical Grid.** The State's existing electrical grid will be hardened, undergrounding and hardening vulnerable overhead primary wire, elevating low-lying substations, expanding tree trimming, raising power lines for newly elevated homes, and creating a new outage management system on Long Island. In addition, at least ten new "microgrids" (independent community-based electric distribution systems) will be created next year through private sector investments and an innovative statewide program called NY Prize. The program will involve a \$40 million competition to help build community-scale microgrids for areas with approximately 40,000 residents. Microgrids can operate in tandem with existing power supply during normal conditions, but will disconnect and operate as independent power systems to keep the lights on during an emergency. The State is seeking Federal support for these \$1.4 billion grid hardening initiatives.
- **Protect the Coastline and Communities.** The US Army Corps of Engineers, in concert with the Department of Environmental Conservation and the Office of Parks, Recreation and Historic Preservation, is embarking on a long-term program to protect 83 miles of New York's exposed coastline, investing \$1.8 billion in Federal funds.
- **Safeguard Against Rising Waters.** A series of projects totaling \$147 million will be conducted along the State's vulnerable coastlines and waterways, to provide flood control for communities and critical infrastructure. Natural infrastructure can and must play a critical role in safeguarding lives and property. This long-term program will help protect miles of New York's exposed coastlines and waterways via innovative restoration of wetlands and dunes in places like Jamaica

Bay and Staten Island. These measures will help to protect New Yorkers and their environment from flooding and storm surge threats posed by the changing climate while at the same time greening urban landscapes.

- **Reconstruct and Harden the Mass Transportation System.** The MTA is undertaking a multibillion dollar overhaul of New York’s mass transportation systems, including the largest reconstruction of the subway system in 110 years. Every facet of the system's infrastructure will be improved to withstand extreme weather. Investments will be made in technologies to seal subway and automobile tunnels, increase pump capacity in stations and tunnels, and projects to protect bus and train yards and the vital infrastructure that makes the systems run. An important part of this network resiliency initiative is the Penn Station Access Project. The entire Metro-North rail system currently depends on the Harlem River Lift Bridge and the Mott Haven Junction remaining fully operational to provide access into and out of Manhattan. Using existing tracks, the Penn Station Access Project would establish new links for the New Haven Line that by-pass both of these points of access, allowing commuters and others to still utilize Metro-North services to enter or leave Manhattan in the event of a disaster. To fund these initiatives, the MTA is utilizing approximately \$5 billion in current Federal repair and mitigation funding. The additional funding needed to complete the full program is expected to be drawn from funds made available in competitive Federal funding notices.
- **Strengthen our Airports.** The Port Authority is planning over \$200 million in projects, with Federal assistance, to install tide gates and drainage, new emergency generation capabilities, elevated fuel facilities, a new signage communications system and a flood wall around critical equipment, in order to make New York’s JFK and LaGuardia airports more resilient.
- **Replace Vulnerable Bridges.** The State seeks to use an additional \$486 million of Federal funds to replace or retrofit approximately 100 scour-critical and flood-prone bridges to ensure that they are fully protected against extreme weather events.
- **Protect and Improve Wastewater Systems.** Federal funds of at least \$1.6 billion will be distributed to counties and municipalities to improve wastewater systems. There are 610 municipal wastewater treatment plants in New York, 1,060 sewage collection systems and 22,000 miles of sewers – more than 30 percent of which are over 60 years old and beyond their expected useful life. Superstorm Sandy caused 200 million gallons of raw sewage to spill into waterways. Salt water surges destroyed vital electrical systems and engines at plants on Long Island and in New York City. These funds will allow communities to protect against future storms through the construction of dikes, levees, and movable floodwalls.
- **Reimagine Home Construction.** The State is proposing to use approximately \$1.5 billion in Federal funds to support housing reconstruction programs for homeowner rehab and reconstruction, home buyouts in areas vulnerable to repeated flooding, the construction and rehabilitation of multifamily and affordable housing, and mortgage assistance.
- **Foster Community Resilience.** The State will expand the NY Rising Community Reconstruction Program with a Phase II that includes an additional 22 communities. Under the current program, 102 communities across the State are creating their own individualized storm resiliency plans. Between the two phases of the program, the 124 participating communities will share in over \$650 million in Federal recovery funds to implement approved plans.

- **Recognize First Responders and Providers.** The State will assist more than 600 healthcare and human service providers and other community-based organizations with nearly \$250 million in Federal funds to aid in the repair, reconstruction and renovation of facilities, as well as to reimburse those organizations for emergency response costs immediately following the Storm. An additional \$200 million in Federal funds will be provided to health and human service providers for unreimbursed operating costs during and after Sandy, ongoing or new services to meet the continuing needs of Sandy-impacted New Yorkers, and other eligible health and social services costs.

### Disaster Preparedness: Making New York Ready

- **Establish a State-of-the-Art Weather Detection System.** The Division of Homeland Security and Emergency Services (DHSES) will collaborate with an academic partner to secure a private entity to establish and operate a state-of-the-art weather detection system – one of only six such systems in the nation. The system will provide real-time warnings of local extreme weather and flood conditions, and identify threats to communities, roads, bridges and the electric system. Data will be available for use in predictive modeling and early warnings to prevent loss of life and property. The number of weather stations will be increased from the current 27 to over 100, creating a highly sophisticated real-time weather reporting network that will accelerate and improve information sharing, thereby assisting emergency responders in responding to extreme weather events. An initial capital investment of \$15 million is being sought from Federal funding related to Superstorm Sandy.
- **Create the SUNY College of Emergency Preparedness, Homeland Security and Cybersecurity.** The Executive Budget will establish the nation's first college of its kind, an advanced degree, interdisciplinary college, specializing in both academic and professional aspects of law enforcement, security, public and international affairs, counterterrorism, emergency management, cybersecurity and forensics. The world class curriculum provided by the college will ensure that aspiring emergency managers, first responders, and other professionals graduate with the skills required to uphold New York State's status as a leader in state and national security. State funding of \$15 million is provided to initiate this project.
- **Equip Gas Stations with Back-up Power Capacity.** New York has the most comprehensive plan in the nation to ensure that power is maintained at strategically located gas stations in the event of an emergency. Starting in 2013-14, the State made \$17 million available to Downstate gas stations near highways and evacuation routes, as well as additional chain gas stations throughout the region, to install back-up power capacity. In an energy emergency, all strategically located Downstate gas stations will have the capability to deploy back-up power. In 2014-15, this program is being extended to include approximately 241 Upstate gas stations within a half mile of exits on critical highways. Another \$3.1 million will be made available through Federal funding related to Superstorm Sandy.
- **Expand State Strategic Fuel Reserves.** On Long Island, the State has created the nation's first state-based strategic fuel reserve. To prevent future supply disruptions, the reserve will be expanded statewide to serve emergency responders. The estimated additional \$10 million cost is expected to be supported by the New York Power Authority.
- **Prepare Citizens for Emergencies.** DHSES, in collaboration with the National Guard, will offer emergency preparedness courses to interested citizens throughout the year, with a goal of training 100,000 citizens by March 31, 2015. Support for this initiative will come from Federal homeland security funds.

- **Achieve Statewide Interoperable Communications.** DHSES is assisting counties in developing a single public safety communications network that will allow all of the State's emergency responders to seamlessly communicate with each other. The State leads this effort by developing the overall strategy and setting standards to guide regional communications consortia as they create their own systems. DHSES has already awarded \$200 million in grants to counties, and will invest another \$75 million toward this initiative in 2014-15. This amount includes a new program which will distribute \$10 million in annual formula-driven grants to counties to support ongoing operations of public safety communications centers. The results of an analysis of the State's progress toward full interoperability are expected in May, and will identify critical projects to close gaps in the statewide system.