



Appendix B

Glossary



1) Glossary

Glossary	
Term	Definition
100-Year Flood	The term "100-year flood" can be misleading. The 100-year flood does not necessarily occur once every 100 years. Rather, it is the flood that has a 1 % chance of being equaled or exceeded in any given year. Thus, the 100-year flood could occur more than once in a relatively short period of time. The Federal Emergency Management Agency (FEMA) defines it as the 1 % annual chance flood, which is now the standard definition used by most federal and state agencies and by the National Flood Insurance Program (NFIP).
Agricultural Drought	Links the various characteristics of meteorological drought to agricultural impacts, while focusing on precipitation shortages and soil-water deficits.
Annualized Capital Stock Losses	Long-term average losses in a given year
Base Flood Elevation (BFE)	The water surface elevation of a 100-year flood event (a flood that has a 1 % chance of occurring in any given year as defined by the NFIP). The base flood is a statistical concept used to ensure that all properties subject to NFIP are protected to the same degree against flooding.
Beaufort Wind Scale	A simplified scale to aid in the estimation of wind speed and corresponding typical effects.
Benefit-Cost Analysis	A systematic, quantitative method of comparing projected benefits to projected costs of a project or policy. It is used as a measure of cost effectiveness.
Building Contents Value	Represents a predefined proportion of the building value.
Building Value	Value of the physical building.
Capability Assessment	Provides a description and analysis of a community's current capacity to address threats associated with hazards. The assessment includes two components: an inventory of an agency's mission, programs, and policies, and an analysis of its capacity to carry them out. A capability assessment is an integral part of the planning process in which a community's actions to reduce losses are identified, reviewed, and analyzed, and the framework for implementation is identified.
Coastal Erosion	Loss or displacement of land along the coastline due to the action of wind, waves, currents, tides, wind-driven water, waterborne ice, runoff of surface waters, or groundwater seepage.
Coastal Erosion Hazard Area (CEHA)	An area of the coastline, which is a structural hazard area, or a natural protective feature area.
Coastal Flooding	Caused by long and short wave surges that affect the shores of the open ocean, bays, and tidally influenced rivers, streams, and inlets
Coastal Storms	Tropical cyclones formed in the atmosphere over warm ocean areas. Wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center or "eye. Circulation is counterclockwise in the Northern Hemisphere.

Glossary	
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Community District	59 distinct geographical boundaries within New York City that have an important advisory role in dealing with land use and zoning matters, the City budget, municipal service delivery, and many other matters relating to their communities' welfare.
Community Rating System	A voluntary program under the NFIP that rewards participating communities (provides incentives) for exceeding the minimum requirements of the NFIP and completing activities that reduce flood hazard risk by providing flood insurance premium discounts.
Cultural Facilities	A critical facility is vital to the City's ability to provide essential services and protect life and property. Loss of a critical facility would result in a severe economic or catastrophic impact.
Dam Failure	An uncontrolled release of impounded water resulting in downstream flooding.
Debris	The scattered remains of assets broken or destroyed during the occurrence of a hazard. Debris caused by wind or water hazards can cause additional damage to other assets.
Disaster Mitigation Act of 2000 (DMA 2000)	The latest federal legislation enacted to encourage and promote proactive, pre-disaster planning as a condition of receiving financial assistance under the Robert T. Stafford Act. The DMA emphasizes planning for disasters before they occur. Under the DMA, a pre-disaster hazard mitigation program and new requirements for the national post-disaster hazard mitigation grant program (HMGP) were established.
Drought	A prolonged period with no rain. Limited winter precipitation accompanied by moderately dry periods during the spring and summer months can also lead to drought conditions.
Drought Emergency	Declared by the New York City Department of Environmental Protection when there is a reasonable probability that, without the implementation of stringent measures to reduce consumption, a protracted dry period would drain the City's reservoirs.
Drought Warning	Declared by the New York City Department of Environmental Protection when there is less than a 33% probability that either of the two largest reservoir systems, the Delaware or the Catskill, will fill by the following June 1, the start of the water-year.
Drought Watch	Declared by the New York City Department of Environmental Protection when there is less than a 50% probability that either of the two largest reservoir systems, the Delaware or the Catskill, will fill by the following June 1, the start of the water-year.
Earthquakes	The sudden motion or trembling of the ground produced by abrupt displacement of rock masses, usually within the upper 10–20 miles of the earth's surface.
Enhanced Fujita Scale	National Weather Service's revised Fujita-scale, which is a complex, systematic approach to measuring the strength of a tornado.
Excessive Heat Warning	Issued within 24 hours of onset of the following conditions: 1) Heat index of at least 105° F for more than three hours per day for two consecutive days 2) Heat index of more than 115° F for any time period

Glossary	
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Excessive Heat Watch	Issued within 48 hours prior to onset of the following conditions: 1) Heat index of at least 105° F for more than three hours per day for two consecutive days 2) Heat index of at least 115° F for any time of 95° F or higher for two consecutive days
Existing Mitigation Action	A project, plan, policy, or program the City has already taken or has begun to implement that addresses natural hazard mitigation.
Exposure	The number and dollar value of assets considered to be at risk during the occurrence of a specific hazard.
Extreme Cold	Temperatures that drop well below normal in an area. Whenever temperatures drop well below normal and wind speed increases, heat can leave your body more rapidly (known as the wind-chill effect).
Extreme Heat	Temperatures that hover 10° F or more above the average high temperature for the region and last for several weeks. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground.
Federal Emergency Management Agency (FEMA)	An independent federal agency (now part of the Department of Homeland Security) created in 1978 to provide a single point of accountability for all federal activities related to disaster mitigation and emergency preparedness, response, and recovery.
Flash Flooding	Caused by short-term, high-intensity rainfall that occurs in inland areas with poor drainage
Flood Insurance Rate Map (FIRM)	The official map of a community for which FEMA has delineated the special flood hazard area (SFHA) and the risk premium zones applicable to the community.
Floodplain	Any land area that becomes inundated with water during a flood or from any other source. Floodplain can be defined in different ways but is commonly defined as the area that is also called the 100-year floodplain.
Floods	A general and temporary condition of partial or complete inundation on normally dry land. Flooding can be categorized as coastal, riverine, or flash.
Fujita Scale (F-Scale)	Standard measurement for rating the strength of a tornado.
Geographic Information Systems (GIS)	A computer software application that relates data regarding physical and other features on the earth to a database for mapping and analysis.
Goal	A general guideline that explains what is to be achieved. Goals are usually broad-based, long-term, policy-type statements and represent global visions. Goals help define the benefits that a plan is trying to achieve.
Go-Outside-the-Home Disability	Conditions lasting six or more months that make going outside the home alone to shop or visit a doctor's office difficult.
Ground Acceleration	Shaking of the ground resulting from seismic waves caused by an earthquake.
Hailstorms	Shower-like precipitation in the form of irregular pellets, or balls of ice more than five millimeters in diameter, falling from a cumulonimbus cloud.

Glossary	
Term	Definition
Hazard	A source of potential danger or adverse condition that could harm people and/or cause property damage.
Hazard Mitigation	Reduction or alleviation of the loss of life, personal injury, and property damage that could result from a disaster through long- and short-term strategies. Hazard mitigation involves strategies such as planning, policy changes, programs, projects, and other activities that could mitigate the impacts of hazards.
Hazard Mitigation Grant Program (HMGP)	Authorized under Section 202 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the HMGP is administered by FEMA and provides grants to states, tribes, and local governments to implement hazard mitigation actions after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to disasters and to enable mitigation activities to be implemented as a community recovers from a disaster.
Hazard Mitigation Plan (HMP)	A collaborative document that identifies hazards that could affect a community, assesses vulnerability to hazards, and represents consensus decisions reached on how to minimize or eliminate the effects of hazards.
Hazards U.S. Multi-Hazard (HAZUS-MH)	A nationally applicable standardized methodology and software program, developed by FEMA, which is under contract with the National Institute of Building Sciences. The program estimates potential losses from earthquakes, hurricane winds, and floods. In HAZUS-MH, current scientific and engineering knowledge is coupled with Geographic Information Systems (GIS) technology to produce estimates of hazard-related damage before, or after, a disaster occurs.
Heat Advisory	Issued within 24 hours prior to onset of any of the following conditions: 1) Heat index of at least 100° F but less than 105° F for any period of time 2) Maximum heat index of 95°F or greater for two consecutive days 3) Nighttime lows above 80° F for any period of time.
Heat Index	The temperature the body feels when heat and humidity are combined.
Hurricane	A tropical storm with winds that have reached a constant speed of 74 miles per hour or more.
Hydrological Drought	A drought caused by deficiencies in surface and subsurface water supplies.
Intensity (earthquakes)	Measures the effects of an earthquake at a particular place and is expressed in terms of the Modified Mercalli scale.
Landslides	The downward and outward movement of slope-forming materials reacting to the force of gravity. Slide materials may be composed of natural rock, soil, artificial fill, or combinations of these materials. The term landslide includes rock falls, rockslides, block glide, debris slide, earth flow, mudflow, slump, and other such terms.
Linguistically Isolated	Households where no one over age 14 speaks English very well, as reported in the 2000 US Census.

Glossary	
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Liquefaction	The complete failure of soils when soils lose shear strength and flow horizontally during earthquakes. Liquefaction is most likely to occur in fine-grained sands and silts with high water content. These materials behave like viscous fluids when liquefaction occurs. Liquefaction undermines the ground's ability to solidly support building structures. Foundations on liquefiable soils can lose their ability to support load and can experience settlement approximately several inches or more. This situation is extremely hazardous and generally results in extreme property damage and threats to life and safety. Differential settlement can cause significant damage to buildings, lifelines, and transportation structures with partial or total collapse.
Magnitude (earthquakes)	Measurement of the total amount of energy and is expressed in terms of the Richter scale
Mitigation Actions	Specific projects, plans, or policies that achieve goals and objectives that minimize the effects from a disaster and reduce the loss of life and property.
Mitigation Planning Council (MPC)	Composed of 39 essential governmental and non-governmental stakeholders that have an interest in reducing the impact of natural hazards throughout New York City.
Mitigation Planning Council Steering Committee (Steering Committee)	A core group of eight agencies and organizations that own or manage some of the City's largest infrastructure networks and/or engage in planning for or regulating these systems.
Mitigation Strategy	A systematic process for analyzing, prioritizing, and implementing the identified mitigation actions in the Hazard Mitigation Plan.
Modified Mercalli Intensity	A scale used for measuring the intensity of an earthquake. The scale quantifies the effects of an earthquake on the Earth's surface, humans, objects of nature, and man-made structures on a scale of I through XII, with I denoting a weak earthquake and XII one that causes almost complete destruction.
National Flood Insurance Program (NFIP)	The three components of the NFIP are flood insurance, floodplain management, and flood hazard mapping. Nearly 20,000 communities across the United States and its territories participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes Federally backed flood insurance available to homeowners, renters, and business owners in these communities. Community participation in the NFIP is voluntary.
Natural Protective Feature Area	A land and/or water area containing natural protective features, the alteration of which might reduce or destroy the protection afforded other lands against erosion or high water or lower the reserve of sand or other natural materials available to replenish storm losses through natural processes.
New York Bight	A curve in the shoreline of an open coast that funnels and increases the speed and intensity of storm surge. The New York Bight is located at the point where New York and New Jersey meet, creating a right angle in the coastline.

Glossary	
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New York City Construction Code	The City's comprehensive building code managed by the New York City Department of Buildings and revised in 2008. The revised code became effective July 1, 2008 and applies to all new construction within the City.
New York City Office of Emergency Management (OEM)	OEM plans and prepares for emergencies, educates the public about preparedness, coordinates emergency response and recovery, and collects and disseminates emergency information. To accomplish this mission, OEM maintains a disciplined unit of emergency management personnel, including responders, planners, watch commanders, and administrative and support staff, to identify and respond to various hazards.
Nor'easter	A strong low-pressure system that affects the Mid-Atlantic and New England states. It can form over land or coastal waters. These typically winter events are notorious for producing heavy snow, rain, and tremendous waves that crash onto Atlantic beaches, often causing beach erosion and structural damage.
Objective	A short-term aim that, when combined with other objectives, forms a strategy or course of action to meet a goal. Unlike goals, objectives are specific and measurable.
Peak Ground Acceleration (PGA)	Measures the rate of change in motion of the earth's surface and expresses it as a percent of the established rate of acceleration due to gravity (9.8 m/sec ²).
Physical Disability	Long-lasting conditions that substantially limit one or more basic physical activity, such as walking, climbing stairs, reaching, lifting, or carrying.
Planning Team	The coordinators for the HMP. The Planning Team was comprised of four planners from the OEM Planning and Preparedness Division and one Hazard Impact Modeler from the Geographic Information Systems (GIS) Unit whom facilitated the overall plan development to ensure the HMP met the requirements of DMA 2000 and executed hazard models to create maps and data tables that support the Plan.
PlaNYC	Outlines a detailed strategy for how the City will address the challenges of population growth, aging infrastructure, and climate change. PlaNYC contains 127 initiatives designed to achieve sustainability goals for land, water, transportation, energy, air quality, and climate change.
Potential Mitigation Action	A project, plan, policy or program that the City would like to take, but currently does not have the funds and/or resources to implement, that addresses natural hazard mitigation.
Preparedness	Actions that strengthen the capability of government, citizens, and communities to respond to disasters.
Presidential Disaster Declaration	Typically made for events that cause more damage than state and local governments and resources can handle without federal government assistance. Generally, no specific dollar loss threshold has been established for such declarations. A Presidential Disaster Declaration puts into motion long-term federal recovery programs, some of which are matched by state programs, designed to help disaster victims, businesses, and public entities.

Glossary	
Term	Definition
Probabilistic (for HAZUS-MH)	Events modeled by looking at the damage caused by an event that is likely to occur over a given period of time, known as a return period.
Recovery	Recovery refers to actions taken by an individual or community after a catastrophic event to restore order and community lifelines.
Repetitive Loss Property	Any NFIP-insured property that, since 1978 and regardless of any change(s) of ownership during that period, has experienced any of the following: 1) Four or more paid flood losses exceeding \$1,000 each 2) Two paid flood losses exceeding \$1,000 each within any 10-year period since 1978 3) Three or more paid losses that equal or exceed the current value of the insured property
Return Period	Average period of time in years between occurrences of a particular hazard (equal to the inverse of the annual frequency of occurrence).
Richter Scale	A logarithmic scale used to express the total amount of energy released by an earthquake. Its values typically fall between 0 and 9, with each increase of 1 representing a 10-fold increase in energy.
Risk	The estimated impact that a hazard would have on people, services, facilities, and structures in a community. Risk measures the likelihood of a hazard occurring and resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low hazard. Risk also can be expressed in terms of potential monetary losses associated with the intensity of likelihood of sustaining damage above a particular threshold due to occurrence of a specific type of the hazard.
Risk Assessment	The process of measuring potential loss of life, personal injury, economic injury, and property damage resulting from hazards. This process assesses the vulnerability of people, buildings, and infrastructure to hazards and focuses on 1) hazard description 2) severity 3) probability 4) location 5) historic occurrences 6) impact to NYC 7) structural vulnerability and 8) potential loss estimates.
River Flooding	Caused when rivers and streams overflow their banks.
Saffir-Simpson Scale	Use by the National Weather Service, this scale uses windspeed to determine the category strength of a hurricane on a scale of 1 to 5.
Sea, Lake, and Overland Surges from Hurricanes (SLOSH)	Calculates surge based on storms moving in different directions and with varying strengths.
Self-Care Disability	Conditions lasting six or more months that make dressing, bathing, or getting around inside the home difficult.
Sensory Disability	Blindness, deafness, or a severe vision or hearing impairment.
Socioeconomic Droughts	A socioeconomic drought impacts the health, well being, and quality of life or starts to have an adverse impact on a region.
Spectra Acceleration	Measures what is experienced by a building during an earthquake, by referencing a particle mass on a mass-less vertical rod having the same natural period of vibration as the building.

Glossary	
Term	Definition
STAPLEE	A set of criteria used to examine the Social, Technical, Administrative, Political, Legal, Economic, and Environmental (STAPLEE) opportunities and constraints of implementing a particular mitigation measure using a consistent framework.
New York State Emergency Management Agency (NYSEMO)	The mission of the New York State Emergency Management Office (SEMO) is to protect the lives and property of the citizens of New York State from threats posed by natural or man-made events. To fulfill this mission, SEMO coordinates emergency management services with other federal and State agencies to support county and local governments. SEMO routinely assists local government, volunteer organizations, and private industry through a variety of emergency management programs. These programs involve hazard identification, loss prevention, planning, training, operational response to emergencies, technical support, and disaster recovery assistance.
Storm Surge	An offshore rise of water associated with a low-pressure weather system, typically a tropical cyclone. Storm surge is caused primarily by high winds pushing on the ocean's surface. The wind causes the water to pile up higher than the ordinary sea level.
Structural Hazard Areas	Shore lands located landward of natural protective features and having shorelines receding at a long-term average recession rate of one foot or more per year. The inland boundary of a "structural hazard area" is calculated by starting at the landward limit of the fronting natural protective feature and measuring along a line perpendicular to the shoreline a horizontal distance landward which is 40 times the long-term average annual recession rate.
Subsidence	Depressions, cracks, and sinkholes in the earth's surface, which can threaten people and property. Subsidence depressions, which normally occur over many days to a few years, may damage structures with low strain tolerances such as dams, factories, nuclear reactors, and utility lines.
Tornadoes	A local atmospheric storm, generally of short duration, formed by winds rotating at very high speeds, usually in a counterclockwise direction. The vortex, up to several hundred yards wide, is visible to the observer as a whirlpool-like column of winds rotating about a hollow cavity or funnel.
Tropical Depression	An organized system of clouds and thunderstorms, with a defined surface circulation, and maximum sustained winds of 38 miles per hour or less.
Tropical Storms	An organized system of strong thunderstorms, with a defined surface circulation, and maximum sustained winds of 39 to 73 miles per hour.
Urban Heat Island Effect	Develop when built surfaces replace a large portion of natural land. Incoming solar radiation is trapped during the day and is then re-radiated at night. This slows the cooling process, keeping nighttime air temperatures high, relative to temperatures in less urbanized areas.
Wildfires	Any instance of uncontrolled burning in grasslands, brush, or woodlands.

Glossary	
Term	Definition
Windchill	Measures apparent temperature felt on exposed skin due to the combination of air temperature and wind speed.
Windstorms	Short-duration events involving straight-line winds or gusts exceeding 50 mph. These gusts can produce winds of sufficient strength to cause property damage. Windstorms are especially dangerous in areas with significant tree stands, exposed property, poorly constructed buildings, mobile homes (manufactured housing units), major infrastructure, and aboveground utility lines. A windstorm can topple trees and power lines; cause damage to residential, commercial, critical facilities; and leave tons of debris in its wake.
Winter Storms	Includes ice storms and blizzards. Extreme cold often accompanies winter storms. The National Weather Service (NWS) characterizes blizzards as being combinations of winds in excess of 35 mph with considerable falling or blowing snow, which frequently reduces visibility.

Table 1: Glossary