



CHAPTER 6: PLAN MAINTENANCE



1. Introduction

This chapter describes the formal process that will ensure the Hazard Mitigation Plan (HMP) remains an effective and relevant document. It establishes the method and schedule for monitoring, evaluating, and revising the HMP during the five-year period leading to the release of an updated HMP in 2019. It also establishes how New York City will maintain community involvement in mitigation planning and the development of the HMP.

New York City's plan maintenance strategy is consistent with the process and steps presented in the Federal Emergency Management Agency (FEMA) [Local Mitigation Plan Review Guide](#) (2011) (website provided at the end of chapter 4). The following FEMA requirements are addressed in this chapter:

- **FEMA 44 CFR Requirement §201.6(c)(4)(i):** [The plan maintenance process *shall* include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.
- **FEMA 44 CFR Requirement §201.6(c)(4)(ii):** [The plan *shall* include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, where appropriate.
- **FEMA 44 CFR Requirement §201.6(c)(4)(iii):** [The plan maintenance process *shall* include a] discussion on how the community will continue public participation in the plan maintenance process.

2. Monitoring of Mitigation Actions in the HMP

The Hazard Mitigation Unit (HMU) at the New York City Office of Emergency Management (OEM) is the point of contact for hazard mitigation-related issues and serves as the lead coordinator for monitoring and updating the HMP. OEM will maintain adequate mitigation planning staff to support the HMU in its work on the HMP. In the first four years of the five-year HMP planning cycle (2014 to 2018), the HMU's work will include the following:

- Collect annual reports from agencies involved in implementing mitigation projects or activities identified in the Mitigation Strategy chapter of the HMP
- Maintain and update the mitigation action tables
- Participate in resiliency- and mitigation-related initiatives
- Conduct site visits and obtain reports of completed or initiated mitigation actions to incorporate into the next plan revision, as needed
- Research and document new disaster information pertaining to New York City and incorporate into a revised Risk Assessment section, as needed
- Organize annual meetings with Mitigation Planning Council (MPC) members to discuss relevant hazard mitigation issues, provide status updates, and discuss grant opportunities
- Conduct ongoing communication and coordination with the Planning Team
- Organize meetings with the Mitigation Planning Council Steering Committee (Steering Committee) to discuss relevant hazard mitigation issues, provide status updates, and discuss grant opportunities
- Coordinate, compile, and disseminate hazard mitigation funding information and applications

- Convene a meeting of the Steering Committee following a natural disaster or when funding is announced to prioritize and submit potential mitigation actions for funding
- Promote awareness of and spread information about hazard mitigation among local, regional, national, and international partners to forge relationships

Beginning in March 2018, the HMU will reconvene the Planning Team and lead a more intensive planning effort to ensure New York City has an updated HMP by 2019. The HMU will be responsible for compiling, documenting, and incorporating all changes derived from the activities listed above in a revised plan document.

The HMU will work closely with the Mayor's Office of Long-Term Planning and Sustainability (OLTPS) to ensure that the maintenance cycle of the HMP is coordinated with the maintenance cycle for *A Stronger, More Resilient New York*, the City's resiliency plan, which will be updated every four years starting in 2015.

3. Evaluation of the HMP

The New York City HMP will be evaluated annually to determine the effectiveness of its projects, programs, and policies. The evaluation will result from scheduled meetings and review of materials in coordination with the Planning Team, Steering Committee, and MPC.

Annual meetings with the Steering Committee and MPC will examine any changes in City resources that may influence plan implementation, such as funding or changes in local, state, or federal policy. It is expected that ongoing Sandy recovery efforts will continue to inform and influence the HMP. These efforts, including many resiliency-focused efforts, may introduce planning and grant opportunities that directly relate to components of the HMP.

The Planning Team will work with the Steering Committee to review all sections of the plan and determine if any information should be updated or modified, given any new available data. The Planning Team will evaluate the content of the Plan using the following criteria:

- How are other citywide initiatives able to complement and support the Mitigation Strategy?
- Are the mitigation actions effective?
- Have funding opportunities influenced the description or analysis of the mitigation actions?
- Are there any changes in land development that affect mitigation priorities?
- Are the goals, objectives, and mitigation actions relevant given any changes in New York City?
- Are the goals, objectives, and mitigation actions relevant given any changes to state or federal regulations or policies?
- Is there any new data that affects the Risk Assessment portion of the plan?

4. Update of the HMP

The next step for updating the plan includes the development of an abridged version of the 2014 HMP. The abridged plan will consolidate the information from 2014 HMP into a public-facing document that will be completed by fall 2014.

The Planning Team will update the HMP over the next five years in accordance with FEMA requirements (see Table 5.1). At the end of this planning cycle, the Planning Team will submit the updated 2019 HMP to the New York State Department of Homeland Security and Emergency Services (DHSES) and FEMA for review. After FEMA has approved New York City's 2019 HMP, the City will again formally adopt the plan by executive order.

Table 5.1: HMP Update Schedule

Time Frame	Participants	Outcome
September, 2014	Planning Team	<ul style="list-style-type: none"> Abridged HMP
First quarter 2015	MPC, Steering Committee	<ul style="list-style-type: none"> Reconvene MPC to discuss mitigation action progress and possible plan improvements Reconvene Steering Committee to evaluate plan's effectiveness and application to existing planning mechanisms
First quarter 2016	MPC, HMU	<ul style="list-style-type: none"> Reconvene MPC to discuss progress on mitigation actions Reconvene Steering Committee to evaluate plan's effectiveness and application to existing planning mechanisms
Second quarter 2016	OEM	<ul style="list-style-type: none"> Apply for grant funding for plan update
First quarter 2017	MPC	<ul style="list-style-type: none"> Reconvene MPC to discuss mitigation action progress and possible plan improvements Reconvene Steering Committee to evaluate plan's effectiveness and application to existing planning mechanisms
Second quarter 2018	Steering Committee, MPC, Planning Team	<ul style="list-style-type: none"> Reconvene Planning Team and begin plan update Coordinate monthly meetings with Steering Committee Reconvene MPC and schedule meetings with agencies as required
Fourth quarter 2018	NYS DHSES, Planning Team	<ul style="list-style-type: none"> Submit draft plan update to NYS DHSES for review and comments
First quarter 2019	FEMA, Planning Team	<ul style="list-style-type: none"> Submit plan to FEMA for final approval
First quarter 2019	New York City	<ul style="list-style-type: none"> Adopt the FEMA-approved HMP

In addition to the HMP update cycle, the City also participates in a Cooperating Technical Partnership (CTP) with FEMA Region II, managed by the Mayor's Office of Long-Term Planning and Sustainability (OLTPS). The City provided FEMA with LiDAR data in 2010 to assist in the flood map update. The CTP began in 2011, with the goal of collaborating on flood hazard identification and working together to successfully reduce future risk by creating a climate of understanding and ownership of the mapping process at the local level.

5. Incorporating Hazard Mitigation into Existing Planning Mechanisms

As part of the local Capability Assessment, the Plan-

ning Team and Steering Committee identified current plans, programs, policies/ordinances, and studies/reports that will augment or help support mitigation planning. The New York City Capability Assessment is included in Section 5 of Chapter 4: Mitigation Strategy. The Steering Committee, which will meet on an annual basis, will ensure the City integrates hazard mitigation into its future planning activities. Following the 2014 HMP approval and adoption, the Steering Committee will work to incorporate, where applicable, the HMP into the planning mechanisms of New York City.

This work can include:

- Updating work plans, policies, or procedures to

include hazard mitigation concepts

- Establishing mitigation funding within capital and operational budgets
- Developing guidance on risk-reduction techniques
- Issuing plans, policies, regulations, or other directives to carry out mitigation actions
- Adding hazard mitigation elements to redevelopment and capital plans

Several examples (listed below) of how the Hazard Mitigation Plan will be incorporated into existing planning mechanisms include public outreach, education, research, policy, and zoning. The capabilities assessment, which identifies the City's planning, regulatory, administrative, technical, financial, and education tools, will ensure these projects are implemented. For further information on these actions and the capability assessment, see Chapter 4 Mitigation Strategy.

- **CS.E.1 (DCP) Urban Waterfront Adaptive Strategies report:** Provide a systematic assessment of the coastal flood hazards that face New York City, a thorough survey of coastal protection and adaptation strategies that may be suitable for different shoreline and neighborhood types, and a framework for evaluating coastal protection alternatives. The report is intended to serve as a resource for planners, policymakers, and communities within New York City, the region, and elsewhere in the coastal United States.
- **DO.E.4 (PSEG) Pandemic plan:** Provide guidance in the event of a pandemic outbreak in PSEG's service territory. This plan addresses prevention, response, and recovery due to a pandemic outbreak.
- **D.E.4 (DEP) Water Demand Management Plan and water shortage rules:** Adopt new plan to conserve water citywide and the rules to impose use restrictions during drought and emergencies.

- **F.E.2 (DCP) Designing for Flood Risk report:** Identify key principles to guide the design of new buildings in flood zones to promote construction that can not only withstand coastal flood events, but also supports the vibrancy of the public realm. Recognizing the distinct character and needs of higher-density urban environments, such as New York City, the report provides recommendations for how regulations and individual project design can incorporate resilient design principles.
- **F.E.63 (OLTPS) Comprehensive flood protection study of New York Harbor:** Continue to work with the USACE to complete its study.
- **MH.E.13 (DCP) Open Industrial Uses Study:** Promote a more sustainable and resilient working waterfront by assessing cost-effective, pollution-prevention controls for unenclosed industrial facilities. The study also recommends stronger safeguards for open activities and the storage of hazardous and non-hazardous materials along the waterfront and in flood zones.
- **MH.E.15 (DCP) Hazard mitigation planning and zoning:** Examine ways to incorporate hazard mitigation goals into City-sponsored rezoning initiatives. A number of rezonings with waterfront and floodplain components have been adopted, including Greenpoint/Williamsburg, Coney Island, and Hunter's Point. These rezonings incorporate goals established in the Waterfront Revitalization Program (WRP), increase open space along the waterfront, and encourage flood resilient construction in new development.
- **MH.E.52 (DOHMH) Public health risk communication for the general public:** Raise public awareness on how to reduce or prevent illness and mortality from extreme weather events and other environmental hazards including air pollution and environmental exposures (such as carbon monoxide releases, mold, toxic spills, and other toxic releases). Use 311, nyc.gov, printed materials, media, and public forums

and presentations.

- **MH.E. 120 (OEM) Public education through Ready New York guides:** Promote Ready New York guides as a tool to educate New Yorkers about natural hazards. This program offers all-hazards guides; hazard-specific guides for hurricanes, floods, and heat; and guides geared specifically for seniors and people with disabilities, children, and businesses. Guides contain information on how to mitigate, prepare for, and respond to an emergency and are offered in up to 14 languages as well as audio tapes and braille. In 2012 and 2013 OEM mailed over 2.2 million hurricane guides to households that lie in the city's hurricane evacuation zones.
- **F.P.2 (DCP) Flood Resilient Building Design Manual:** Provide guidance for planning and design of new construction and retrofit of existing buildings in areas subject to flooding. Guidance will mitigate property damage and life safety dangers posed by structurally and superficially damaged buildings.
- **F.P.3 (DCP) Zoning for flood-resistant construction, Phase I and II:** Make text amendments to modify zoning to encourage flood-resistant construction. The regulations would be consistent with updated flood area construction practices and the need for greater resilience in the larger flood zones established by FEMA.
- **F.P.11 (DOB) Post-disaster code enforcement:** Hire staff to enforce mitigation measures in Sandy rebuilding efforts, specifically in accordance with NFIP standards.
- **F.P.48 (OEM) Public information and guidance:** Disseminate mitigation information and help provide technical assistance to property owners affected by flood events.
- **MH.P.117 (OEM) Educational outreach to private sector:** Coordinate and provide educational outreach on mitigation strategies the private sector can use to reduce or eliminate the impacts of hazards on private-sector services and infrastructure. Opportunities to educate OEM's private-sector partners include conferences, OEM website, and presentations.
- **MH.P.123 (OEM) Natural hazard event database:** Create a natural hazard event database to capture description, severity, location, impact, and potential loss/damage estimates from events. Use data to update the hazard analysis and mitigation actions for New York City.
- **MH.P.126 (OEM) Public/private mitigation initiatives:** Support the resiliency of New York City's private sector through information sharing, partnership building, and education on mitigation principles and the City's HMP.
- **MH.P.130 (OEM) Zoning for hazard-prone areas:** Correlate natural hazard-vulnerable areas with existing zoning districts to identify areas where mitigation actions would be necessary to maintain responsible and sustainable development.
- **MH.P.131 (OEM) Mitigation public outreach:** Develop a mitigation guide and online training course for homeowners and property managers on risk reduction before and after a hazard event, and work with community-based organizations and non-governmental organizations to engage the community in advance of an emergency.
- **MH.P.134 (OEM) New York City mitigation guide and education:** Educate New Yorkers about hazard mitigation techniques that they can use to reduce long-term risks from natural hazards. Include a mitigation guide for homeowners and property managers; online training; flood-risk information; and CBO/NGO outreach—all to be incorporated into OEM's website.
- **MH.P.158 (SBS) SBS outreach:** Update SBS website with information on emergency preparedness and mitigation best practices, and

email-blast business and neighborhood organization customers to inform them of mitigation best practices and how to prepare for an upcoming hazard.

- **MH.P.162 (OEM) Ready New York materials:** Work with OEM to update/create Ready New York materials geared to businesses with information on mitigation actions.
- **MH.P.163 (SBS) Toolkit and training materials for Business Improvement Districts (BID) and Local Development Corporations (LDC) on mitigation best practices:** Partner with OEM to create toolkit and training materials to train BIDs and LDCs on mitigation best practices. BID representatives and AvenueNYC contract managers will partner with OEM to present on mitigation best practices at meetings in the field.
- **MH.P.164 (SBS) Hazard mitigation seminar for BIDs and LDCs:** Partner with OEM to hold annual seminar on hazardous mitigation best practices.

risdictions. Finally, OEM will send a notice to Citizen Corps members informing them of the plan update. This will provide the public with opportunities to express their concerns, opinions, or ideas about any updates/changes that are proposed in the plan.

6. Continued Public Involvement

New York City is dedicated to continued public involvement in hazard mitigation planning and in the HMP review process. During all phases of plan maintenance, the public will have the opportunity to provide feedback. The 2014 plan will be maintained and available for review on the OEM website until 2019. Individuals will have an opportunity to submit comments on the plan at any time by email. The HMU will compile all comments and present them at annual Steering Committee meetings, where members will consider them for incorporation into the next revision of the plan.

The City will publicize the draft of the 2019 plan update to encourage community involvement. Six months prior to the formal submission of the updated HMP, OEM will post the draft plan on its website and also post a notice requesting feedback on the draft plan. The Planning Team will hold community involvement meetings with representatives from academic institutions, the private sector, community groups, and neighboring ju-