



1. INTRODUCTION

Passaic County has developed a hazard mitigation plan (HMP) to reduce risks from disasters to the people, property, economy, and environment within the County. Developed by the County and 16 participating local jurisdictions (the Planning Partners), this HMP updates the 2020 Passaic County HMP. The updated 2025 HMP includes countywide analysis and assessment of hazards, risk, and capabilities.

1.1 OVERVIEW TO HAZARD MITIGATION PLANNING

1.1.1 What Is Hazard Mitigation?

Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk and effects that can result from hazards. The Federal Emergency Management Agency (FEMA) defines a hazard mitigation plan as the documentation of a state or local government’s evaluation of natural hazards and strategies to mitigate them.

Effective mitigation planning helps people, organizations, and government agencies to better prepare for and respond when disasters occur. It also allows local governments to remain eligible for FEMA grant funding for mitigation projects that will reduce the impact of future disaster events. The long-term benefits of mitigation planning and implementation include the following:

- An increased understanding of hazards faced by local communities
- A more sustainable and disaster-resistant community
- Financial savings through partnerships that support planning and mitigation efforts
- Focused use of limited resources on hazards that have the biggest impact on the community
- Reduced long-term impacts and damage to human health and structures
- Reduced costs associated with response and recovery efforts, including repairs

FEMA estimates that for every dollar spent on damage prevention (mitigation), twice that amount is saved by not having to perform post-disaster repairs.

1.1.2 Regulatory Framework

The federal government encourages communities to assess their vulnerability to various hazards before disaster strikes and then take actions to reduce or eliminate potential risks. A disaster-resistant community can rebound from a natural disaster with less loss of property or human injury, at much lower cost and, consequently, more quickly. Moreover, other costs associated with disasters are minimized, such as the time lost from productive activity by businesses and industries.

The federal Disaster Mitigation Act of 2000 (DMA 2000) encourages states, tribes, and local governments to undertake mitigation planning. Under DMA 2000, communities seeking certain hazard-related federal funding must have a plan that identifies actions to mitigate hazards, risks, and vulnerabilities and establishes a strategy to implement those actions. The HMP must identify potential natural hazards to the health, safety, and well-being of its residents and identify actions that the community can take to mitigate those hazards before disaster strikes. States and local governments must update HMPs every 5 years to remain eligible for funding.



Regulations implementing the intent and requirements of DMA 2000 are included in Title 44 of the Code of Federal Regulations, Section 201 (44 CFR 201). One goal of the federal regulations is to facilitate cooperation between state and local authorities, prompting them to work together. This enhanced planning process enables local and state governments to better articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects. In New Jersey, responsibility for fulfilling the requirements of DMA 2000 and 44 CFR 201 has been delegated to the New Jersey Office of Emergency Management (NJOEM). Table 1-1 summarizes the 44 CFR 201 requirements and where each is addressed in this hazard mitigation plan.

Table 1-1. FEMA Local Mitigation Plan Review Crosswalk

Plan Criteria	Primary Location in Plan
Prerequisites	
Adoption by the Local Governing Body: §201.6(c)(5)	Chapter 2; Appendix A:
Planning Process	
Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)	Chapter 2
Risk Assessment	
Identifying Hazards: §201.6(c)(2)(i)	Chapter 4, 5
Profiling Hazards: §201.6(c)(2)(i)	Chapters 6 – 13
Assessing Vulnerability: Overview: §201.6(c)(2)(ii)	Chapters 6 – 13
Assessing Vulnerability: Identifying Structures: §201.6(c)(2)(ii)(A)	Chapters 6 – 13
Assessing Vulnerability: Estimating Potential Losses: §201.6(c)(2)(ii)(B)	Chapters 6 – 13
Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(ii)(C)	Chapters 6 – 13
Mitigation Strategy	
Local Hazard Mitigation Goals: §201.6(c)(3)(i)	Chapter 16; Volume II Annexes
Identification and Analysis of Mitigation Actions: §201.6(c)(3)(ii)	Chapter 16; Volume II Annexes
Implementation of Mitigation Actions: §201.6(c)(3)(iii)	Chapter 16; Volume II Annexes
Multi-Jurisdictional Mitigation Actions: §201.6(c)(3)(iv)	Chapter 16; Volume II Annexes
Plan Maintenance Process	
Monitoring, Evaluating, and Updating the Plan: §201.6(c)(4)(i)	Chapter 17
Incorporation into Existing Planning Mechanisms: §201.6(c)(4)(ii)	Chapter 17; Volume II Annexes
Continued Public Involvement: §201.6(c)(4)(iii)	Chapter 17

1.1.3 Specialized Terms and Concepts

Like any technical field, hazard mitigation has developed over the years its own set of terms and concepts with particular meanings within the hazard mitigation practice. A full glossary and list of acronyms is provided in Appendix B:. The list below provides a quick reference for specialized terms whose use is especially prominent in this hazard mitigation plan:

- **Adaptive capacity**—the ability of a human or natural system to adjust to climate change by moderating potential damage, taking advantage of opportunities, or coping with the consequences (EPA 2023)
- **Asset**—anything that is important to the character and function of a community (e.g., people, structures, community lifelines, the economy, and natural, historic, and cultural resources) (FEMA 2023)
- **Capability assessment**—an evaluation of which authorities, policies, programs, funding, and resources a participant has to accomplish hazard mitigation (FEMA 2023)



- **Cascading hazards**—a primary event, such as heavy rainfall, seismic activity, or rapid snowmelt, followed by a chain of consequences that may range from modest (lesser than the original event) to substantial (National Academies of Sciences, Engineering, and Medicine 2022)
- **Community lifelines**—the most fundamental services in a community that, when stabilized, enable all other aspects of society to function (FEMA 2023)
- **Extent**—the range of anticipated intensities of the identified hazards within a community, most commonly expressed using various scientific scales (FEMA 2022)
- **Hazard profile**—a description of a hazard’s location, extent, previous occurrences and probability of future events within a community (FEMA 2023)
- **Hazard ranking**—the process of identifying the hazards that pose the greatest risk to a community, based on how likely the hazard is to occur, the potential consequences if the hazard does occur, and other relevant local factors
- **Impact**—the consequences or effects of a hazard on a community’s assets identified in the vulnerability assessment. (FEMA 2023)
- **Integration**—the inclusion of hazard mitigation principles, vulnerability information and mitigation actions into other existing community planning to leverage activities that have co-benefits, reduce risk, and increase resilience (FEMA 2022)
- **Mitigation action**—measures, projects, plans or activities proposed to reduce the current and future vulnerabilities identified in the risk assessment (FEMA 2023)
- **Mitigation strategy**— the long-term blueprint for reducing the potential hazard-related losses identified in the risk assessment; the strategy consists of mitigation goals, mitigation actions, and a plan for implementing the actions (FEMA 2023)
- **Natural hazard**—a source of harm or difficulty created by a meteorological, environmental, or geological event (FEMA 2023)
- **Plan maintenance**—monitoring and updating a hazard mitigation plan as warranted by changing conditions, availability of new information, and progress on the proposed mitigation actions (FEMA 2023)
- **Planning process**—the procedures used to develop a hazard mitigation plan with broad acceptance across the community
- **Risk**—the potential for damage or loss when natural hazards interact with people or assets (FEMA 2023)
- **Risk assessment**—a data-driven analysis to find where a local jurisdiction is vulnerable to hazards (FEMA 2023)
- **Social vulnerability**—the potential for loss within an individual or social group, as affected by traits that influence an individual’s or group’s resilience, which is their ability to prepare, respond, cope, or recover from an event (FEMA 2023)
- **Stakeholder**—individuals or groups that a mitigation action or policy affects, including businesses, private organizations, and residents (FEMA 2023)
- **Vulnerability**—a description of which assets within locations identified to be hazard prone are at risk from the effects of the hazard (FEMA 2023)



1.2 HISTORY OF HAZARD MITIGATION PLANNING IN PASSAIC COUNTY

1.2.1 Previous Passaic County HMPs

Following the adoption of DMA 2000 Passaic County prepared and adopted its first hazard mitigation plan in 2010. The plan has been regularly updated since then, with updates in 2015 and 2020.

1.2.2 Key Changes in the Current Update

The following are the most significant changes made between the previous County HMP (2020) and the current (2025) update:

- The 2025 Passaic County HMP Steering Committee re-evaluated the inclusion of coastal storm as a standalone hazard. The primary hazard posed by coastal storms is strong winds, which are covered under the severe weather hazard. Coastal storms were included as a sub-type of severe weather to avoid duplication of efforts and streamline the mitigation strategy.
- The 2025 Passaic County HMP Steering Committee re-evaluated the inclusion of disease outbreak as a hazard of concern. Disease outbreaks are typically assessed and addressed in preparedness and public health plans, so it was removed from the HMP to avoid duplication of efforts.
- The 2025 Passaic County HMP Steering Committee re-evaluated the inclusion of hazardous substances as a hazard of concern. Hazardous substance releases are typically in preparedness plans, so it was removed from the HMP to avoid duplication of efforts.
- The 2025 Passaic County HMP Steering Committee re-evaluated the inclusion of earthquake as a standalone hazard. The previous County HMP included earthquakes and geological hazards as separate hazards of concerns. However, FEMA's National Risk Index indicates Passaic County has a relatively low risk ranking for earthquakes, and the County has a limited history of occurrences. The Steering Committee opted to include earthquake as a sub-type of GEOLOGICAL HAZARDS to avoid duplication of efforts and streamline the mitigation strategy.
- The 2025 Passaic County HMP Steering Committee re-evaluated invasive species as a hazard of concern. The Steering Committee determined that invasive species is a cascading impact triggered by other hazard events and addressed by other planning mechanisms, such as environmental conservation. This hazard was removed from the HMP to avoid duplication of efforts.
- The 2020 HMP presented the identification of hazards of concern, risk assessment methodology and tools, hazards of concern profiles, and hazard ranking in Section 4 as part of the overall risk assessment. For the 2025 HMP update, these sections were expanded and presented as standalone chapters (Chapter 4 through 14).

1.3 PLAN ORGANIZATION

The Passaic County HMP is organized into two volumes: Volume I includes all information that applies to the entire planning area (Passaic County); and Volume II includes specific information for each participating jurisdiction.



Volume I is a resource for ongoing mitigation analysis. It includes a description of the County and its jurisdictions as well as information on mitigation planning and how the risk assessment and capability assessment were performed. Volume I of the plan includes the following chapters:

- Executive Summary
- Chapter 1: Introduction
- Chapter 2: Planning Process—A description of the plan methodology and development process, committee and stakeholder roles and activities, and how the plan will be incorporated into existing programs. Information regarding the adoption of the plan by each participating jurisdiction.
- Chapter 3: County Profile—An overview of Passaic County, including general information and physical conditions, land use patterns and trends, population and demographics, economy, general building stock inventory, community lifelines, and natural, historic, and cultural resources
- Chapter 4: Risk Assessment Methodology—Description of the methodology used to assess hazard risk and the status of local data.
- Chapter 5: Identification of Hazards of Concern—Documentation of the process of identifying the natural hazards of concern for further profiling and evaluation.
- Chapters 6 to 13—Hazard profiles and findings of the risk assessment (estimates of the impact of hazard events on life, safety, and health; general building stock; critical facilities; the economy, and natural, historic, and cultural resources).
- Chapter 14: Hazard Ranking—Description and summary of the hazard ranking process.
- Chapter 15: Capability Assessment—A summary and description of the existing plans, programs, and regulatory mechanisms at all levels of government (federal, state, county, local) that support hazard mitigation within the County.
- Chapter 16: Mitigation Strategy—Information regarding the mitigation goals and objectives identified by the Steering Committee in response to priority hazards of concern, and the process by which County and local mitigation strategies have been developed or updated.
- Chapter 17: Plan Maintenance Procedures—A system to continue to monitor, evaluate, maintain, and update the plan.

Volume II consists of annexes for each participating jurisdiction. Each annex summarizes the jurisdiction's planning, regulatory, and fiscal capabilities; evaluates vulnerabilities to hazards; describes the status of past mitigation actions; and provides a specific mitigation strategy. The annexes provide each area with an expedient resource for implementing mitigation projects and maximizing future grant opportunities.

Appendices include the following:

- **Appendix A:** Sample Resolution of Plan Adoption—Documentation that supports the plan approval signatures included in Chapter 2 of this plan.
- **Appendix B:** Meeting Documentation—Agendas, attendance sheets, minutes, and other documentation (as available and applicable) of planning meetings convened during the development of the plan.
- **Appendix C:** Public and Stakeholder Outreach Documentation—Documentation of the public and stakeholder outreach effort including webpages, informational materials, public and stakeholder meetings and presentations, surveys, and other methods used to receive and incorporate public and stakeholder comment and input to the plan update process.
- **Appendix D:** Participation Matrix



- **Appendix E:** Action Worksheet Template and Instructions
- **Appendix F:** Plan Maintenance Tools—Examples of plan review templates available to support annual plan review and example FEMA Guidance Worksheets (FEMA 386-4).
- **Appendix G:** Critical Facility Inventory
- **Appendix H:** Risk Assessment Supplementary Data—Details regarding past hazard events since those documented in the 2020 plan.
- **Appendix I:** NJOEM Local Hazard Mitigation Plan Standard Operating Procedures—Includes planning standards and guidelines for hazard mitigation planning.
- **Appendix J:** Linkage Procedures
- **Appendix K:** Dam Supplement—This appendix contains information on high hazard dams within Passaic County