



# 1.0 INTRODUCTION



## 1.0 INTRODUCTION

### 2021 HMP Update Changes:

- Section 1, Introduction, was updated to reflect the organization of the 2021 HMP update.
- Figure 1-1 showing the Warren County Mitigation Plan Area figure is now located in Section 2.0 Community Profile.
- Figure 1-2 Warren County Hazard Mitigation Planning Process is now located in Section 4.0 Planning Process.
- Previous Section 1.1.3 Organizations Involved in the Mitigation Planning Effort is now divided between Section 1.2 Organization Involved in the Mitigation Planning Effort and 1.3 Organization of the Plan.

### 1.1 BACKGROUND

In response to the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), Warren County, and the cities, towns, townships, and boroughs located therein, have developed this multi-jurisdictional HMP, which is an update of the 2016 Warren County New Jersey Multi-Jurisdictional All-Hazards Mitigation Plan (Warren County HMP). The DMA 2000 amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) and is designed to improve planning for, response to, and recovery from disasters by requiring state and local entities to implement pre-disaster mitigation planning and develop HMPs. The Federal Emergency Management Agency (FEMA) has issued guidelines for HMPs. The New Jersey Office of Emergency Management (NJOEM) also supports plan development for jurisdictions in New Jersey.

**Hazard Mitigation** is any sustained action taken to reduce or eliminate the long-term risk and effects that can result from specific hazards.

FEMA defines a **Hazard Mitigation Plan** as the documentation of a state or local government evaluation of natural hazards and the strategies to mitigate such hazards.

Specifically, the DMA 2000 requires that states, with support from local governmental agencies, update HMPs on a five-year basis to prepare for and reduce the potential impacts of natural hazards. The DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. This enhanced planning will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects.

#### 1.1.1 DMA 2000 ORIGINS -THE ROBERT T. STAFFORD DISASTER RELIEF AND EMERGENCY ASSISTANCE ACT

Natural hazard mitigation **saves \$6 on average for every \$1 spent** on federal mitigation grants (FEMA 2018).

In the early 1990s, a new federal policy regarding disasters began to evolve. Rather than simply reacting whenever disasters strike communities, the federal government began encouraging communities to first assess their vulnerability to various disasters and proceed to take actions to reduce or eliminate potential risks. The logic is simply that 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 business and industries.

The DMA 2000 provides an opportunity for states, tribes, and local governments to take a new and revitalized approach to mitigation planning. The DMA 2000 amended the Stafford Act by

repealing the previous mitigation planning provisions (Section 409) and replacing them with a new set of requirements (Section 322). This section sets forth the requirements that communities evaluate natural hazards within their respective jurisdictions and develop an appropriate plan of action to mitigate those hazards, while emphasizing the need for state, tribal, and local governments to closely coordinate mitigation planning and implementation efforts.

The amended Stafford Act requires that each local jurisdiction identify potential natural hazards to the health, safety, and well-being of its residents, and identify and prioritize actions that can be taken by the community to mitigate those hazards—before disaster strikes. For communities to remain eligible for hazard mitigation assistance from the federal government, they must first prepare, and then maintain and update an HMP (this plan).

Responsibility for fulfilling the requirements of Section 322 of the Stafford Act and administering the FEMA Hazard Mitigation Program has been delegated to the State of New Jersey, specifically to NJOEM. FEMA also provides support through guidance, resources, and plan reviews.

### 1.1.2 BENEFITS OF MITIGATION PLANNING

The planning process will help prepare citizens and government agencies to better respond when disasters occur. In addition, mitigation planning allows Warren County as a whole, as well as the participating municipalities, to remain eligible for mitigation grant funding for mitigation projects that will reduce the impact of future disaster events. The long-term benefits of mitigation planning include:

- An increased understanding of hazards faced by Warren County communities;
- A more sustainable and disaster-resistant county;
- 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; and
- Reduced long-term impacts and damages to human health and structures and reduced repair costs.

## 1.2 ORGANIZATIONS INVOLVED IN THE MITIGATION PLANNING EFFORT

Warren County and the participating jurisdictions intend to implement this HMP with full coordination and participation of county and local departments, stakeholder organizations and groups, as well as by coordinating with relevant state and federal entities. Coordination helps to ensure that stakeholders have established communication channels and relationships necessary to support mitigation planning and mitigation actions included in Section 6.0 Mitigation Strategy and in the jurisdictional annexes. For this HMP update, the County organized the 22 municipalities into five groups, based regional risk. This HMP update received 100% municipal planning participation. **Table 1.1-1 Participating Jurisdiction in the 2021 Warren County HMP** highlights the municipal, county, and stakeholders involved in the Planning Process. More information on meetings and how their input was integrated into this plan update is described in 3.0 Planning Process.

**Table 1.2 - 1 Participating Jurisdictions in the 2021 Warren County HMP**

Participating Jurisdictions in Warren County HMP	
Group 1	Allamuchy Township
	Blairstown Township
	Hope Township
	Frelinghuysen Township
	Hardwick Township
Group 2	Alpha Borough
	Greenwich Township
	Harmony Township
	Lopatcong Township
	Pohatcong Township
	Town of Phillipsburg
Group 3	Town of Belvidere
	Knowlton Township
	White Township
Group 4	Franklin Township
	Washington Borough
	Washington Township
	Oxford Township
Group 5	Hackettstown
	Independence Township
	Liberty Township
	Mansfield Township

**Multiple Agency Support for Hazard Mitigation**

Primary responsibility for the development and implementation of mitigation strategies and policies lies with local governments. However, local governments are not alone. In addition to the stakeholders listed in Section 1.1.3, various partners and resources at the regional, state, and federal levels are available to assist communities in the development and implementation of mitigation strategies. Within New Jersey, NJOEM is the lead agency providing hazard mitigation planning assistance to local jurisdictions. NJOEM provides guidance to support mitigation planning. In addition, FEMA provides grants, tools, guidance, and training to support mitigation planning.

Additional input and support for this planning effort was obtained from a range of agencies and through public involvement (as discussed in Section 3.0 Planning Process). Under the project management of the Warren County Department of Public Safety, oversight for the preparation of this HMP was provided by the Warren County Steering Committee. Details regarding the roles and responsibilities of the Steering and Planning Committees are also further discussed in Section 3.0 Planning Process. The Steering Committee, consisting of representatives from county departments, has been formed to plan, guide, expedite, and implement the planning process. A list of Steering Committee members is provided in Section 3.0 Planning Process.

This HMP update was prepared in accordance with the following regulations and guidance:

- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C., Section 322, as amended;
- Code of Federal Regulations (CFR), Title 44, Parts 201 and 206;

- Disaster Mitigation Act of 2000, Public Law 106-390, as amended.
- National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 et seq.
- 2019 State of New Jersey HMP (State HMP)

FEMA’s most recent guidance, the Mitigation Action Portfolio (2020) and Building Community Resilience with Nature-based Solutions: A Guide for Local Communities were the primary FEMA guides used for the development of this plan. Additionally, this plan uses guidance from the State Requirements to the Crosswalk from the State HMP. Previous FEMA guides including the 386 series and information available from NJOEM on hazard mitigations was used to guide this plan’s development. **Table 1.2 - 1 FEMA Local Mitigation Plan Review Tool** summarizes the requirements outlined in the DMA 2000 Interim Final Rule and where each of these requirements is addressed in this HMP.

**Table 1.2 - 2 FEMA Local Mitigation Plan Review Tool**

Plan Criteria	Primary Location in the 2021 HMP
<b>ELEMENT A. PLANNING PROCESS</b>	
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	Section 3.2
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Sections 3.2.4, 3.3.4
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	Sections 3.2.5, 3.4
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	Section 5.6
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	Section 7.3
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	Section 7.1
<b>ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT</b>	
B1. Does the Plan include a description of the type, location, and extent of all-natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	Sections 4.6.1, 4.6.2, 4.6.3 – 4.24.1, 4.24.2, 4.24.3
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Sections 4.6.4, 4.6.5 – 4.24.4, 4.24.5
B3. Is there a description of each identified hazard’s impact on the community as well as an overall summary of the community’s vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Sections 4.6.6, 4.6.7- 4.24.6, 4.24.7
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	Section 4.9, Jurisdictional Appendix
<b>ELEMENT C. MITIGATION STRATEGY</b>	
C1. Does the plan document each jurisdiction’s existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Section 5.6.4, Jurisdictional Appendix
C2. Does the Plan address each jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	Section 4.9, Jurisdictional Appendix
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	Section 6.4
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of	Section 6.5.4

Plan Criteria	Primary Location in the 2021 HMP
hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	Section 6.5.5, Jurisdictional Appendix
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	Section 5.6.4, Jurisdictional Appendix
<b>ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION</b>	
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	Section 2.5
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	Section 6.5.4
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	Section 6.4
<b>ELEMENT E. PLAN ADOPTION</b>	
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Section 9.0, Appendices Vol II - G
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	Section 9.0, Appendices Vol II - G

### 1.3 ORGANIZATION OF THE PLAN

The Warren County HMP update is organized into a two-volume plan to facilitate use of this plan as a resource for each participant. This HMP update provides a detailed review and analysis of hazards of concern, resources, and demographics of Warren County and participating municipalities.

Appendices Volume I – Jurisdictional Information consists of an annex dedicated to each participating jurisdiction. Each annex summarizes the jurisdiction’s legal, regulatory, and fiscal capabilities; vulnerabilities to natural hazards; status of past mitigation actions; and provides an individualized mitigation strategy. The annexes are intended to provide an expedient resource for each jurisdiction for implementation of mitigation projects and future grant opportunities. Appendices Volume II – Other Plan Materials is intended for use as a resource for on-going mitigation analysis.

#### Hazards of Concern

Warren County and participating jurisdictions evaluated the natural and human-based hazards that caused measurable impacts in the planning area and updated the list of hazards of concern based on events, losses, and information available since the 2016 HMP. Warren County and participating jurisdictions evaluated the risk and vulnerability due to each of the hazards of concern on the assets of each participating jurisdiction. Although the resulting hazard risk rankings varied for each jurisdiction, the summary risk rankings corresponded with that of Warren County and are indicated in each jurisdictional annex. The hazard risk ranks were used to focus and prioritize individual jurisdictional mitigation strategies.

#### Goals and Objectives

The HMP update reflects changes in priorities, including mitigation goals and objectives, as a basis for the planning process and to guide the selection of appropriate mitigation actions addressing all hazards of concern. This HMP update has revised the 2016 goals and objectives, as identified in 6.4 Review and Update of Mitigation Goals and Objectives.

## Plan Integration into Other Planning Mechanisms

Effective mitigation is achieved when hazard awareness and risk management approaches and strategies become an integral part of public activities and decision-making. Within the County, there are many existing plans and programs that support hazard risk management, and thus it is critical that this HMP integrate and coordinate with, and complement, those mechanisms (see Section 5.6 Plan Integration).

## Capability Assessment

The Capability Assessment in Section 5.0 provides a summary and description of the existing plans, programs, and regulatory mechanisms at all levels of government (federal, state, county and local) that support hazard mitigation within Warren County. Within each jurisdictional appendix, Warren County and each participating jurisdiction identified how they have integrated hazard risk management into their existing planning, regulatory, and operational/administrative framework, and how they intend to promote this integration. A further summary of these continued efforts to develop and promote a comprehensive and holistic approach to hazard risk management and mitigation is presented in Section 5.0 Capability Assessment.

## Overall HMP Structure

This HMP is divided into the following sections:

**1.0 Introduction:** Discusses the purpose of hazard mitigation planning and the planning requirements for the HMP.

**2.0 Planning Process:** Discusses the planning process, planning team, and municipal meeting process.

**3.0 County Profile:** Describes Warren County's geography, land use, housing characteristics, changes in development, economic assets, and transportation trends.

**4.0 Risk Assessment:** Provides an overview of the hazard identification, an analysis on each hazard affecting Warren County, and key risk findings.

**5.0 Capability Assessment:** Examines the integration of existing planning mechanisms and the HMP.

**6.0 Mitigation Strategy:** Discusses the HMP goals and objectives, along with the mitigation strategy.

**7.0 Plan Maintenance:** Explains the plan maintenance process for monitoring, evaluating, and updating the HMP.

**8.0 Plan Adaptation:** Discusses municipal HMP adoption process.

**Appendices Volume I – Jurisdictional Information:** Each municipality has their own appendix with a municipal narrative, mitigation strategy, capability assessment, and flood vulnerability maps.

**Appendices Volume II – Other Plan Materials:** Includes the Hazus report, plan monitoring tools, meeting materials, plan review tool, public comments, and plan adoption resolutions.

**Table 1.3 - 1 Crosswalk of 2016 HMP Sections and 2021 HMP Sections**

2016 HMP Sections:	2021 HMP Sections:
1.0 Introduction	1.0 Introduction
2.0 Plan Adoption	Moved to Section 8.0 Plan Adoption
3.0 Planning Process	3.0 Planning Process
4.0 County Profile	Moved to Section 2.0 County Profile
5.0 Risk Assessment	Moved to Section 4.0 Risk Assessment
6.0 Mitigation Strategies	Divided into 5.0 Capability Assessment and 6.0 Mitigation Strategy
7.0 Plan Maintenance Procedures	7.0 Plan Maintenance
8.0 Planning Partnership	Integrated in with 3.0 Planning Process
9.0 Jurisdictional Annexes	Moved to Appendices Vol. I – Jurisdictional Information

## 1.4 IMPLEMENTATION OF THE 2016 HAZARD MITIGATION PLAN

This HMP update reflects progress in local mitigation actions. The status of the mitigation projects in the 2016 HMP are provided in Section 6.0 Mitigation Strategy. Numerous projects and programs have been implemented that have reduced hazard vulnerability to assets in the planning area. The municipal annexes and plan maintenance procedure have been developed to encourage specific activities such as review of the HMP during update of codes, ordinances, zoning, and development to ensure that a more thorough integration, with its related benefits, will be completed within the upcoming five-year planning period. In addition to evaluating the 2016 actions, this HMP includes new actions at the County and local level, integrating the FEMA’s recent plan guidance. For a comprehensive list of mitigation actions, see Section 6.0 Mitigation Strategy.

### 1.4.1 IMPLEMENTATION OF THE PLANNING PROCESS

The planning process and findings are to be documented in local HMPs. To support the planning process in developing this HMP update, Warren County and the participating jurisdictions have accomplished the following:

- Developed a Steering Committee
- Reviewed the 2016 Warren County HMP
- Evaluated hazards that are of greatest concern to the County (hazards of concern) to be included in the update
- Profiled these hazards
- Estimated the inventory at risk and potential losses associated with these hazards
- Reviewed and updated the mitigation goals and added objectives
- Reviewed the 2016 mitigation strategy and actions to indicate progress
- Developed new mitigation actions to address reduction of vulnerability of hazards of concern
- Involved a wide range of stakeholders and the public in the HMP update process
- Developed mitigation plan maintenance procedures to be executed after obtaining approval of the plan from NJOEM and FEMA

As required by the DMA 2000, Warren County and participating jurisdictions have informed the public on the planning process and provided opportunities for public comment and input. In addition, numerous agencies and stakeholders have participated as core or support members, providing input and expertise throughout the planning process.

This HMP update documents the process and outcomes of Warren County and the jurisdictions’ efforts. Additional information on the HMP update process is included in Section 3.0 Planning Process. Documentation showing the prerequisites for plan approval have been met is included in Section 8.0 Plan Adoption.