



# SECTION 1. INTRODUCTION

## 2016 Plan Update Changes

- Section 1, Introduction, was updated to reflect the organization of the 2016 Hazard Mitigation Plan (HMP) update.

## 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 Multijurisdictional HMP, which is an update of the 2011 Warren County New Jersey All-Hazards Pre-Disaster Mitigation Plan. DMA 2000 amends the 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, 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. 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

FEMA estimates that for every dollar spent on damage prevention (mitigation), twice that amount is saved through avoided post-disaster damage repair.

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.

DMA 2000 provides an opportunity for states, tribes, and local governments to take a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance 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 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; and
- Reduced long-term impacts and damages to human health and structures and reduced repair costs.

### 1.1.3 ORGANIZATIONS INVOLVED IN THE MITIGATION PLANNING EFFORT

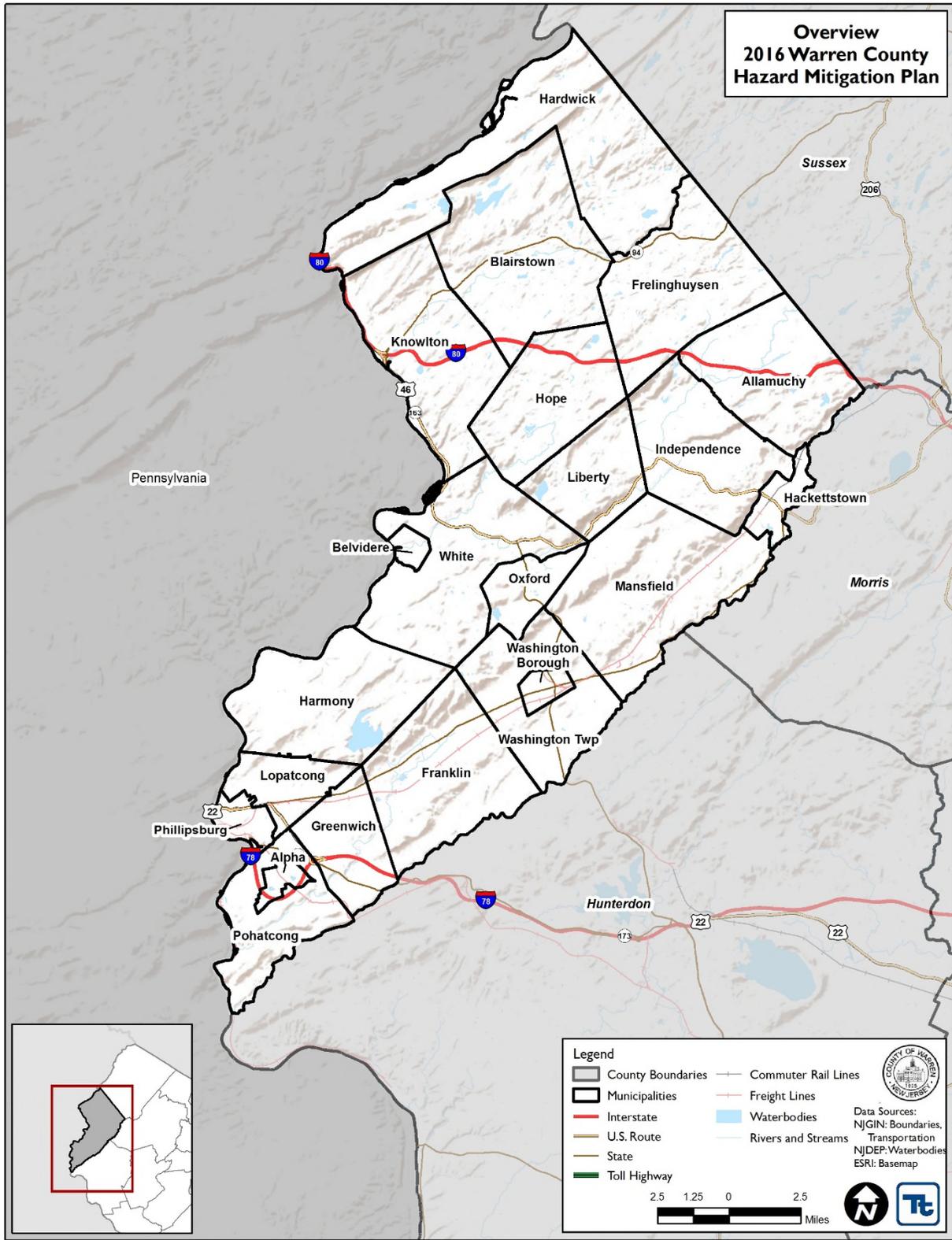
Warren County and the participating jurisdictions intend to implement this HMP with full coordination and participation of county and local departments, organizations and groups, as well as by coordinating with relevant state and federal entities. Coordination helps to ensure that stakeholders have established communication channels and relationships necessary to support mitigation planning and mitigation actions included in Section 6 and in the jurisdictional annexes presented in Section 9. In addition to Warren County, all municipalities have participated in the planning process (Table 1-1 and Figure 1-1).

**Table 1-1. Participating Jurisdictions in Warren County**

Jurisdiction	
Allamuchy Township	Knowlton Township
Alpha Borough	Liberty Township
Town of Belvidere	Lopatcong Township
Blairstown Township	Mansfield Township
Franklin Township	Oxford Township
Frelinghuysen Township	Town of Phillipsburg
Greenwich Township	Pohatcong Township
Hackettstown	Washington Borough
Hardwick Township	Washington Township
Harmony Township	White Township
Hope Township	Warren County
Independence Township	



Figure 1-1. Warren County, New Jersey Mitigation Plan Area



Source: New Jersey Geographic Information Network (NJGIN), Warren County





## 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; 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). Under the project management of the Warren County Department of Public Safety/Office of Emergency Management, oversight for the preparation of this HMP was provided by the Warren County Hazard Mitigation Steering and Planning Committees. Details regarding the roles and responsibilities of the Steering and Planning Committee are also further discussed in Section 3. 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 and Planning Committee members is provided in Section 3.

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

- FEMA “Local Mitigation Planning Handbook,” March 2013
- FEMA “Integrating Hazard Mitigation into Local Planning,” March 2013
- Local Mitigation Plan Review Guide, October 1, 2011
- DMA 2000 (Public Law 106-390, October 30, 2000).
- 44 Code of Federal Regulations (CFR) Parts 201 and 206 (including: Feb. 26, 2002, Oct. 1, 2002, Oct. 28, 2003, and Sept. 13, 2004 Interim Final Rules).
- FEMA. 2004. “How-To Guide for Using HAZUS-MH for Risk Assessment.” FEMA Document No. 433. February.
- FEMA Mitigation Planning How-to Series (FEMA 386-1 through 4, 2002), available at: <http://www.fema.gov/fima/planhowto.shtm>.

Table 1-2 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. FEMA Local Mitigation Plan Review Crosswalk**

Plan Criteria	Primary Location in HMP
<b>Prerequisites</b>	
Adoption by the Local Governing Body: §201.6(c)(5)	Volume I, Section 2.0; Appendix A
<b>Planning Process</b>	
Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)	Volume I, Section 3.0
<b>Risk Assessment</b>	
Identifying Hazards: §201.6(c)(2)(i)	Volume I, Section 5.2
Profiling Hazards: §201.6(c)(2)(i)	Volume I, Section 5.4
Assessing Vulnerability: Overview: §201.6(c)(2)(ii)	Volume I, Section 5.4
Assessing Vulnerability: Identifying Structures: §201.6(c)(2)(ii)(A)	Volume I, Section 4.0 Volume I Section 5.4
Assessing Vulnerability: Estimating Potential Losses: §201.6(c)(2)(ii)(B)	Volume I, Section 5.4



Plan Criteria	Primary Location in HMP
Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(ii)(C)	Volume I, Section 4.0; Volume II, Section 9 Annexes
<b>Mitigation Strategy</b>	
Local Hazard Mitigation Goals: §201.6(c)(3)(i)	Volume I, Section 6.0; Volume II, Section 9 Annexes
Identification and Analysis of Mitigation Actions: §201.6(c)(3)(ii)	Volume I, Section 6.0; Volume II, Section 9 Annexes
Implementation of Mitigation Actions: §201.6(c)(3)(iii)	Volume I, Section 6.0; Volume II, Section 9 Annexes
Multi-Jurisdictional Mitigation Actions: §201.6(c)(3)(iv)	Volume I, Section 6.0; Volume II, Section 9 Annexes
<b>Plan Maintenance Process</b>	
Monitoring, Evaluating, and Updating the Plan: §201.6(c)(4)(i)	Volume I, Section 7.0
Incorporation into Existing Planning Mechanisms: §201.6(c)(4)(ii)	Volume I, Section 7.0; Volume II, Section 9 Annexes
Continued Public Involvement: §201.6(c)(4)(iii)	Volume I, Section 7.0

### Organization

The Warren County Multijurisdictional HMP update has been 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.

Volume I is intended for use as a resource for on-going mitigation analysis. Volume II 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.

### Hazards of Concern

Warren County and participating jurisdictions reviewed the natural 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 2011 plan. In addition, human-caused hazards were included. 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 plan has incorporated 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 2011 goals and objectives, as identified in Section 6.

### 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.



The “Capability Assessment” in Section 6 (Mitigation Strategy) 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 the county. Within each jurisdictional annex in Section 9, Warren County and each participating jurisdiction have identified how they have integrated hazard risk management into their existing planning, regulatory, and operational/administrative framework (“integration capabilities”), and how they intend to promote this integration (“integration actions”).

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 7.

#### **1.1.4 IMPLEMENTATION OF THE 2011 HAZARD MITIGATION PLAN**

The status of the mitigation projects in the 2011 HMP are provided in Sections 6 and 9 of this updated HMP. 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.

Appendix H summarizes the enhanced mitigation strategy developed and implemented by Warren and Hunterdon Counties to apply for FEMA Flood Mitigation Assistance (FMA) funding to acquire severe repetitive loss (SRL) properties across both counties.

#### **1.1.5 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 and Mitigation Planning Committee
- Reviewed the 2011 Warren County Multi-Jurisdictional Hazard Mitigation Plan
- Identified/reviewed 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 2011 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 plan update process
- Developed mitigation plan maintenance procedures to be executed after obtaining approval of the plan from NJOEM and FEMA

As required by DMA 2000, Warren County and participating jurisdictions have informed the public 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.

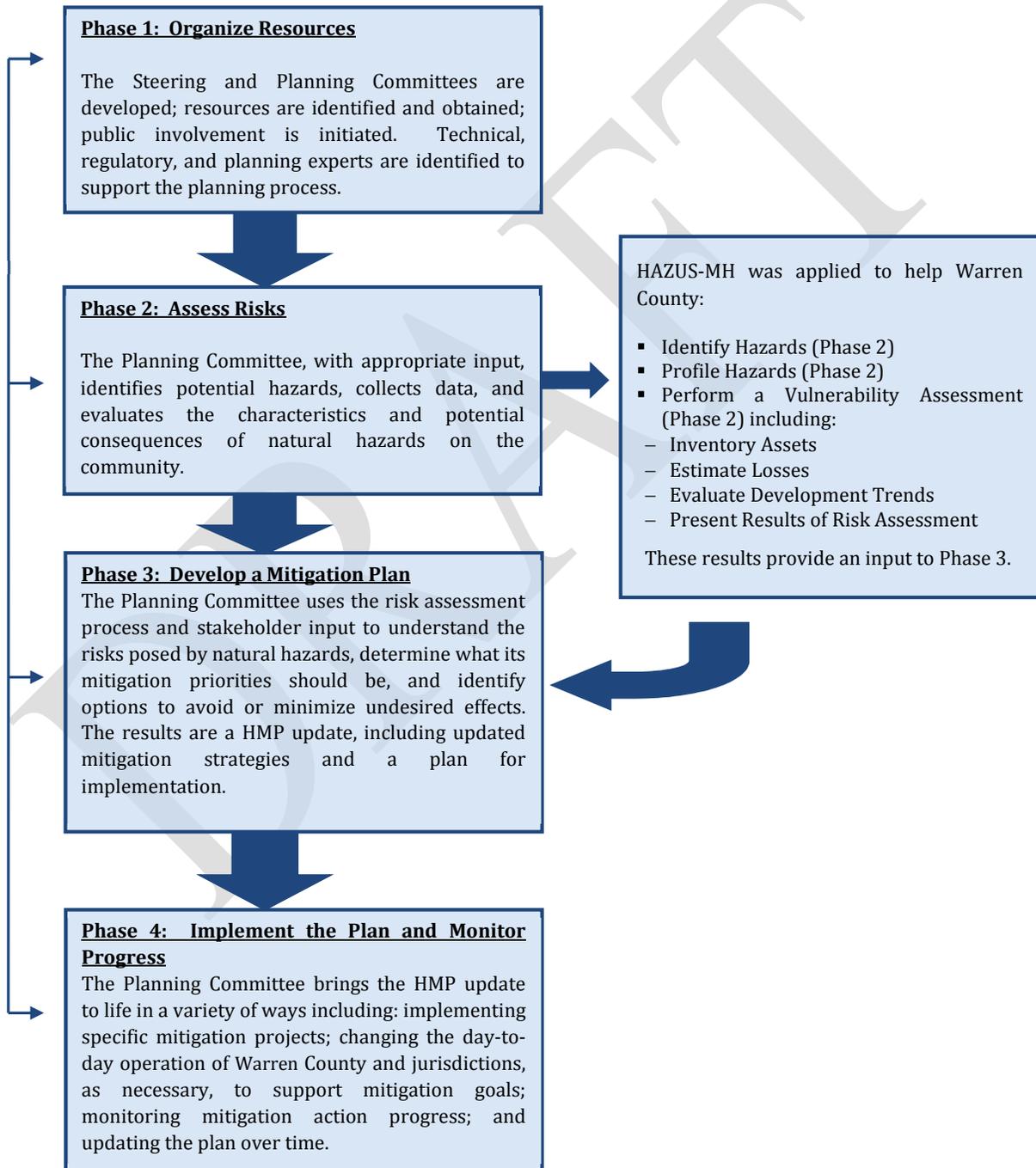


This HMP update documents the process and outcomes of Warren County and the jurisdictions' efforts. Additional information on the HMP update process is included in Section 3, Planning Process. Documentation showing the prerequisites for plan approval have been met is included in Section 2, Plan Adoption.

### 1.1.6 ORGANIZATION OF THIS MITIGATION PLAN

This HMP update was organized in accordance with FEMA and NJOEM guidance. The structure of this HMP update follows the four-phase planning process recommended by FEMA and summarized in Figure 1-2.

Figure 1-2. Warren County Hazard Mitigation Planning Process





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

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**Volume I of this HMP includes the following sections:**

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**Section 1:** Introduction: Overview of participants and planning process.

**Section 2:** Plan Adoption: Information regarding the adoption of the HMP update by Warren County and each participating jurisdiction.

**Section 3:** Planning Process: A description of the HMP update methodology and development process; Steering Committee, Planning Committee, and stakeholder involvement efforts; and a description of how this HMP update will be incorporated into existing programs.

**Section 4:** County Profile: An overview of Warren County, including: (1) general information, (2) economy, (3) land use trends, (4) population and demographics, (5) general building stock inventory and (6) critical facilities.

**Section 5:** Risk Assessment: Documentation of the hazard identification and hazard risk ranking process, hazard profiles, and findings of the vulnerability assessment (estimates of the impact of hazard events on life, safety and health; general building stock; critical facilities; and the economy). Description of the status of local data and planned steps to improve local data to support mitigation planning.

**Section 6:** Mitigation Strategies: Information regarding the mitigation goals and objectives identified by Warren County in response to priority hazards of concern.

**Section 7:** Plan Maintenance Procedures: The system established by Warren County to continue to monitor, evaluate, maintain, and update the HMP.

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**Volume II of this plan includes the following sections:**

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**Section 8:** Planning Partnership: Description of the planning partnership, and jurisdictional annexes.

**Section 9:** Jurisdictional Annexes: A jurisdiction-specific annex for each participating jurisdiction and Warren County containing their hazards of concern, hazard risk ranking, capability assessments, mitigation actions, action prioritization specific only to Warren County or that jurisdiction, progress on 2011 mitigation actions, and an overview of 2011 plan integration into local planning processes.

Appendices include:

**Appendix A:** Resolutions of Plan Adoption: Documentation that supports the plan approval signatures included in Section 2 of this HMP. Resolutions from each jurisdiction will be included as they formally adopt the HMP update.

**Appendix B:** Meeting Documentation: Agendas, attendance sheets, minutes, and other documentation (as available and applicable) of planning meetings convened during the development of the HMP.

**Appendix C:** Participation Matrix: A matrix is presented to give a broad overview of who attended meetings and when input was provided to the HMP update.

**Appendix D:** 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 E:** Detailed information on historic events and losses in Warren County.

**Appendix F:** Mitigation Action Worksheet Template and Instructions.

**Appendix G:** FEMA 386-4 Guidance Worksheets: Examples of plan review templates available to support annual plan review.

**Appendix H:** Enhanced Mitigation Strategy: A summary of the enhanced mitigation strategy developed by Warren and Hunterdon Counties to apply for FEMA FMA funding to acquire SRL properties across both counties.

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