



SOMERSET COUNTY

HAZARD MITIGATION PLAN

SOMERSET COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

FINAL PLAN UPDATE
JULY 2019

www.co.somerset.nj.us/hmp

Section 1: INTRODUCTION

*Prepared by the Somerset County
Mitigation Planning Committee*



SECTION 1: INTRODUCTION

BACKGROUND

In response to the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), Somerset County, and the boroughs and townships located in the County have developed this Multi-Jurisdictional All-Hazard Mitigation Plan (HMP) which is an update of Somerset County Hazard Mitigation Plan, initially created in 2009 and last updated in 2014. 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.

DMA 2000 Origins -The Robert T. Stafford Disaster Relief and Emergency Assistance Act

In the early 1990s a new federal policy regarding disasters began to evolve. Rather than simply reacting whenever disasters strike communities, the federal government would encourage communities to first assess their vulnerability to various disasters and then 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, such as the time lost from productive activity by business and industries, are minimized.

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

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 a HMP and maintain (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. Copies of the applicable federal and state regulations are found in Appendix A.

Organizations Involved in the Mitigation Planning Effort

Somerset 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 in Volume II, Section 9.

In addition to Somerset County, all municipal jurisdictions within the County and two special purpose districts have participated in the planning process (Table 1-1 and Figure 1-1).

Table 1-1. Participating Jurisdictions in Somerset County

Townships	Boroughs
Bedminster	Bernardsville
Bernards	Bound Brook
Branchburg	Far Hills
Bridgewater	Manville
Franklin	Millstone
Green Brook	North Plainfield
Hillsborough	Peapack Gladstone
Montgomery	Raritan
Warren	Rocky Hill
Special Purpose Districts	Somerville
North Plainfield Public Schools	South Bound Brook
Somerset Raritan Valley Sewerage Authority	Watchung

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 and implementation. In addition, FEMA provides grants, tools, and training to support mitigation planning and implementation.

Somerset County formally acted to initiate the hazard mitigation plan update process by resolution on July 28, 2015 and subsequently acted to award a contract for plan update consulting services on June 13, 2017 both by action of the Board of Chosen Freeholders.

Additional input and support for this planning effort was obtained from a range of agencies and through public involvement (as discussed in Section 3).

This current plan update represents a collaborative effort led by the Somerset County Planning Division and the Somerset County Office of Emergency Management. Planning, engineering, and emergency management staff on the County and local levels participated as members of the Steering Committee. Oversight for the preparation of this plan was provided by the County Mitigation Planning Committee (MPC), which included representatives from:

- County Planning Division
- County Office of Emergency Management
- County Engineering Department
- County Education Department
- NJ American Water
- Somerset Raritan Valley Sewerage Authority
- County Planning Board
- Somerville Municipal Hazard Mitigation Committee
- County Business Partnership
- County Department of Human Services
- County Public Information Department
- Participating Jurisdictions

The Steering Committee is a subset of the MPC and was formed as a leadership group to plan, guide, expedite, and implement the planning process. The Steering Committee was engaged by the PMT throughout the planning process and provided guidance and leadership, oversaw the planning process, and has acted as the point of contact for all partners and the various interest groups in the planning area.

The Planning Committee was comprised of the Steering Committee as well as additional County representatives and the remaining participating jurisdictional representatives. A list of Steering Committee and Planning Committee members is provided in Section 3- Planning Process.

The Project Management Team (PMT) was a subset of the Steering Committee and communicated frequently to review the status of the planning process and to address any comments or issues that might have had an effect on the plan schedule. PMT members included representatives from the County Planning Division, County Office of Emergency Management, and AECOM. PMT members were supported by staff from NJOEM. A list of PMT members is provided I Section 3 – Planning Process.

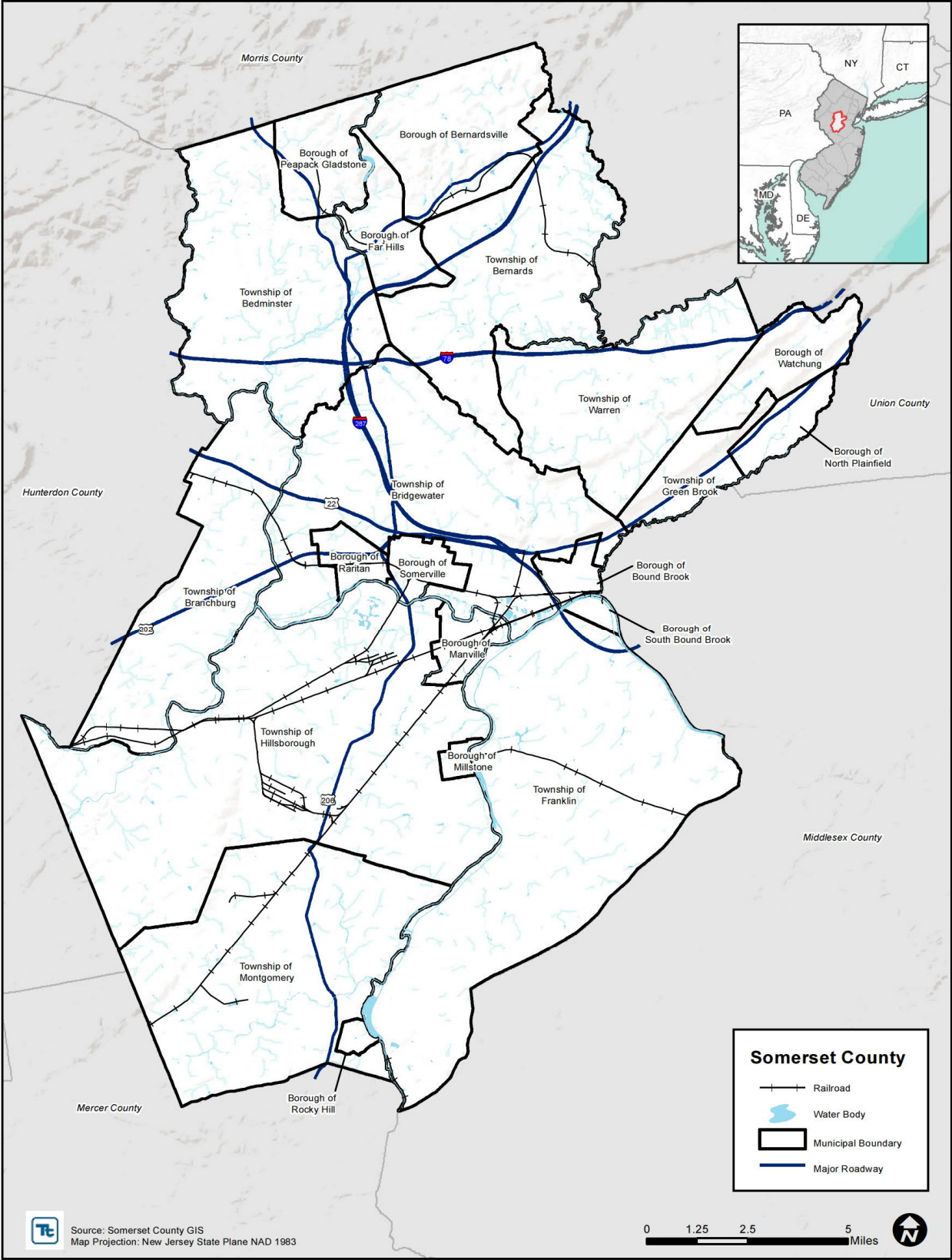
For the initial plan of 2009 and its first update in 2014, Somerset County utilized the services of Tetra Tech, Inc. (Tetra Tech) in the capacity of consultant and Mitigation Planner to provide assistance in preparation of the HMP.

For this second plan update of 2019, Somerset County utilized the services of AECOM Technical Services, Inc. (AECOM) in the capacity of consultant and Mitigation Planner to provide assistance in the update of the HMP.

AECOM was present and participated in meetings as noted in Section 3 - Planning Process. AECOM updated the 2014 plan, supported the refinement of goals and objectives, reviewed and compiled updated hazard data, revised risk analyses to incorporate data and information made available since 2014, revised

hazard identification and profiling, vulnerability analyses, supported the development of mitigation strategies, provided planning support, and authored the updated plan with input from Somerset County.

Figure 1-1 Somerset County Mitigation Plan Area



Source: Somerset County GIS
Map Projection: New Jersey State Plane NAD 1983



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

- 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: February 26, 2002; October 1, 2002; October 28, 2003; and September 13, 2004; October 31, 2007; December 19, 2014 Interim Final Rules and Final Rules of October 31, 2007; September 16, 2009; April 25, 2014; and October 2, 2015).
- 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

FEMA Local Mitigation Plan Review Crosswalk	
Plan Criteria	Primary Location in Plan
Prerequisites	
Adoption by the Local Governing Body: §201.6(c)(5)	Volume I, Section 2.0; Appendix B
Planning Process	
Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)	Volume I, Section 3.0
Risk Assessment	
Identifying Hazards: §201.6(c)(2)(i)	Volume I, Sections 5.2
Profiling Hazards: §201.6(c)(2)(i)	Volume I, Section 5.3
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
Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(ii)(C)	Volume I, Section 4.0; Section 9 Annexes
Mitigation Strategy	
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
Plan Maintenance Process	
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
Continued Public Involvement: §201.6(c)(4)(iii)	Volume I, Section 7.0

Organization

The Somerset County Hazard Mitigation Plan Update is organized into a two volume plan to facilitate use of this plan as a resource for each participant.

Volume I is intended to be used as a source for ongoing mitigation analysis. Volume II consists of a chapter or 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, updated mitigation strategy. The annexes are intended to provide a concise reference for each jurisdiction for implementation of mitigation projects and future grant opportunities.

Goals and Objectives

As part of the 2019 plan update process, the 2014 Plan goals were reevaluated by each participating jurisdiction. All prior goals were deemed appropriate to carry forward, and one new goal was added. The final goals for inclusion in the 2019 Plan Update are:

- Protect Life
- Protect Property
- Promote a Sustainable Economy
- Protect the Environment
- Increase Public Awareness
- Create Resilient Communities (new goal added during most recent plan update)

These goals, with corresponding objectives that meet multiple goals, serve as a basis for the planning process and to address all hazards of concern.

Hazards of Concern

The County and participating jurisdictions reviewed natural hazards that caused measurable impacts in the planning area and evaluated the risk and vulnerability due to each of the hazards of concern on the assets of each participating jurisdiction. The resulting hazard risk rankings varied for each jurisdiction and the summary risk rankings of low, medium, and high are indicated in each jurisdictional annex. The hazard risk ranks were used to focus and prioritize the individual jurisdictional mitigation strategies.

Plan Integration into Other Planning Mechanisms

It is the intention of this planning process that municipalities shall incorporate findings and recommendation of this plan into future local planning efforts and into overall execution of their land-use planning process (e.g. site plan review, permitting, and code enforcement).

Implementation of the 2014 Plan

The status of the mitigation projects in the 2014 plan are provided in Sections 6 and 9 of the plan. Numerous projects and programs have been implemented that have reduced hazard vulnerability to assets in the planning area. A range of initiatives has been undertaken to integrate the 2014 plan with planning processes in many jurisdictions, and the integration of the 2019 plan continues to be a high priority for the next five year cycle as noted in the plan maintenance procedure. 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 5-year planning period.

The County Mitigation Plan Coordinators (CMPCs) and County Planning Division will continue to encourage all jurisdictions to incorporate hazard mitigation plan aspects into their comprehensive and master plan updates, as well as making specific recommendations, such as having the Floodplain Administrator review all site plan review and zoning permits within the 100-year floodplain and including the hazards map in their plan.

IMPLEMENTATION OF THE PLANNING PROCESS

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

- Established a Mitigation Planning Committee (MPC)
- Reviewed the 2014 Somerset County Hazard Mitigation Plan
- Identified/reviewed hazards of concern to be included in the update
- Profiled these hazards
- Estimated the inventory of at risk properties and assets and potential losses associated with these hazards
- Refined the mitigation goals and objectives that address the various hazards that impact the area
- Reviewed the 2014 mitigation strategy and actions to indicate progress
- Developed new and updated mitigation actions aimed at reducing vulnerability of hazards of concern
- Developed mitigation plan maintenance procedures to be executed after obtaining approval of the plan from NJOEM and FEMA

Based on a hazards identification worksheet and ranking process, subsequent input from the MPC, and review of other available data, the planning process then proceeded to identify, rank and profile those hazards that are of greatest concern to the community (hazards of concern). The hazard profiles include location, extent, previous occurrences and losses, and the probability of future events. The process also included a vulnerability assessment to evaluate what County, borough, township, and organization's assets are exposed or vulnerable to the hazards. The rankings have been updated with respect to the 2014 results primarily due to a more accurate vulnerability analysis.

To address the requirements of DMA 2000 and better understand their potential vulnerability to and losses associated with hazards of concern, Hazards U.S. – Multi-Hazard (HAZUS-MH or HAZUS) software package (discussed in greater detail later in this Plan) supplemented by local data, as feasible, was used to support the risk assessment and vulnerability evaluation. HAZUS-MH assesses risk and estimates potential losses for natural hazards. It produces outputs that will assist state and local governments, communities, and the private sector in implementing emergency response, recovery, and mitigation programs, including the development of HMPs.

As required by DMA 2000, Somerset 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 Multi-Jurisdictional Hazard Mitigation Plan documents the process and outcomes of the County and jurisdictions' efforts. Additional information on the planning process is included in Section 3, Planning Process. Documentation that the prerequisites for plan approval have been met is included in Section 2, Plan Adoption.

Benefits of Mitigation Planning

The planning process will help citizens and government agencies to identify and implement mitigation measures in advance of hazard events that will reduce their damage-causing impacts; minimize emergency response and recovery times and costs; and take steps to remove and keep vulnerable people and property out of harm's way. Also, mitigation planning allows Somerset County and its boroughs, townships, and organization's 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 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 damages to human health, structures and the environment; and reduced repair costs

Organization of this Mitigation Plan

This Plan was organized in accordance with FEMA and NJOEM guidance. The structure of this Plan follows the four-phase planning process recommended by FEMA and summarized in Figure 1-2. The Plan is organized into two volumes: Volume I includes all information that applies to the entire planning area (Somerset County); and Volume II includes participating jurisdiction-specific information. The basic organization of the 2014 Plan has been maintained for the 2019 Plan Update.

Volume I of this Plan includes the following sections:

Section 1: Introduction: Overview of participants and planning process

Section 2: Plan Adoption: Information regarding the adoption of the Plan by Somerset County and each participating jurisdiction.

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

Section 4: County Profile: An overview of Somerset 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. Includes estimates of the probability of occurrence, impact of hazard events on life, safety and health; general building stock; critical facilities and the economy.

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

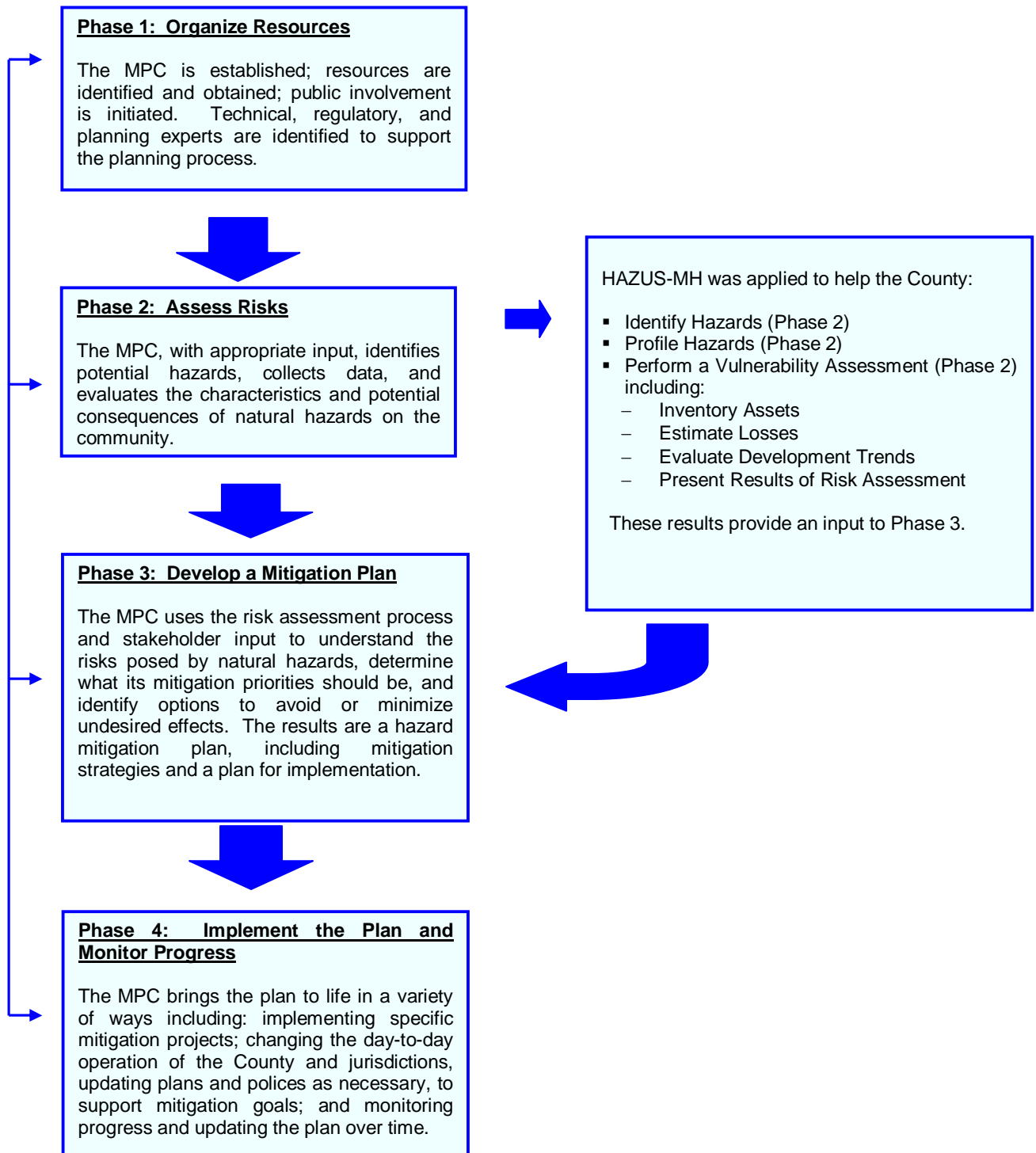
Section 7: Plan Maintenance Procedures: The system established by Somerset County to continue to monitor, evaluate, maintain and update the Plan.

Volume II of this Plan includes the following sections:

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 the County containing their hazards of concern, hazard risk ranking, capability assessments, mitigation actions, action prioritization specific only to the County or that jurisdiction, progress on 2014 mitigation actions, and an overview of 2014 plan integration into local planning processes.

Figure 1-2. Somerset County Hazard Mitigation Planning Process



Appendices –

Appendix A: Applicable Federal and State Regulations: Copies of federal and state acts and regulations that apply to hazard mitigation planning within this jurisdiction.

Appendix B: Jurisdictional Resolutions: Documentation that supports the Plan approval signatures included in Section 2 of this Plan.

Appendix C: Public and Stakeholder Outreach and Comments: Results of Public Survey Public Notices, Public Service Announcements, various newspaper articles to inform the public of the hazard mitigation planning effort in Somerset County and specific public and stakeholder comments received throughout the planning process.

Appendix D: Mitigation Catalog: Comprehensive list of mitigation actions considered by Somerset County and the participating jurisdictions.

Appendix E: Federal Mitigation Programs, Activities, and Initiatives: Summary of federal funding options that could be used to fund mitigation activities.

Appendix F: Jurisdictional Annex Template and Instructions: Template and instructions used by Somerset County and each participating jurisdiction.

Appendix G: FEMA 386-4 Guidance Worksheets

Appendix H: Focus Group and Meeting Results: agendas, minutes, presentation materials and sign-in sheets of major meetings convened during the planning process.

Appendix I: Sample Participation Resolution provided to local jurisdictions summarizing minimum requirements of participation in the planning process.

Appendix J: Flood Resiliency Framework

Appendix K: Energy Resiliency Framework

Appendix L: Climate Adaptation and Mitigation Memo