



SECTION 1 INTRODUCTION .....1-1

1.1 BACKGROUND.....1-1

1.1.1 CRS Origins.....1-1

1.1.2 Organizations Involved in the Mitigation Planning Effort.....1-2

1.1.3 Multiple Agency Support for Hazard Mitigation.....1-2

1.2 GUIDELINES FOR FLOOD PLANNING.....1-3

1.3 CRS STEPS FOR COMPREHENSIVE FLOOD MANAGEMENT PLAN .....1-3

1.4 IMPLEMENTATION OF THE PLANNING PROCESS.....1-4

1.4.1 Benefits of Mitigation Planning .....1-4

1.4.2 Benefits of Participating in the CRS .....1-5

1.5 HOW TO USE THIS PLAN .....1-5





# SECTION 1 INTRODUCTION

This section provides an introduction to the preparation of the Township of Brick Flood Management Plan.

## 1.1 BACKGROUND

The Township of Brick is vulnerable to flooding and has experienced devastating losses over the years. The Township has developed this Flood Management Plan to identify the Township's known flood problem areas; establish goals, objectives, policies and implementation programs to reduce flooding and flood-related hazards; and to ensure the natural and beneficial functions of the floodplains are protected.

The Township has experienced devastating losses over the years. Since January 1978, residents have submitted \$255,852,114 in flood insurance claims (Federal Emergency Management Agency [FEMA] NFIP Statistics, 2015).

Due to these high losses and the impact of recent severe storm and flooding events, the Township intends to apply for the National Flood Insurance (NFIP) Community Rating System (CRS) as a way to help strengthen floodplain management in the Township and to reduce flood insurance premiums for residents.

The Township of Brick participated in in the 2014 Ocean County Hazard Mitigation Plan, but based on the flood history of the Township and recent major flooding events, the Township supported the development of a township-specific Flood Management Plan to more clearly address reducing its flood vulnerability. The Township has prepared this Flood Management Plan as an up-to-date tool for flood preparedness and flood hazard mitigation. Elements and strategies in this plan were selected because they meet various state or federal program requirements as well as the needs of Township of Brick and its citizens.

This plan identifies resources, information, and strategies for reducing risk from flood hazards. It will help guide and coordinate mitigation activities. The plan was developed to meet the following objectives:

- Meet the needs of Township of Brick as well as state and federal requirements.
- Meet planning requirements allowing the Township to join CRS with an enhanced classification.
- Coordinate existing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented.
- Create a linkage between the Flood Management Plan and other established local, County, and regional plans to ensure the Township, Ocean County, and other regional entities can work together in achieving successful mitigation.

All citizens, businesses, and visitors of the Township of Brick are the ultimate beneficiaries of this plan. Participation in development of the plan by key stakeholders helped ensure that outcomes will be mutually beneficial. The plan's goals and recommendations can lay groundwork for the development and implementation of local mitigation activities and partnerships.

### 1.1.1 CRS Origins

The NFIP provides federally backed flood insurance to encourage communities to enact and enforce floodplain regulations. The NFIP's CRS was implemented in 1990 as a mechanism for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards. The National Flood Insurance Reform Act of 1994 codified the CRS in the NFIP. Under the CRS, flood insurance premium rates

**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 the **Community Rating System** as a program developed by FEMA to provide incentives for those communities in the Regular Program that have gone beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding.



are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

There are 10 CRS classes: class 1 requires the most credit points and gives the largest premium reduction; class 10 receives no premium reduction. A community that does not apply for the CRS or that does not obtain the minimum number of credit points is a class 10 community. The CRS recognizes 18 creditable activities, organized under four categories numbered 300 through 600: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness (An Evaluation of the National Flood Insurance Program's Community Rating System, Federal Emergency Management Agency, October 1998).

The Township of Brick is a Category "10" community (additionally, it also has more than 110 properties on the updated list of repetitive loss properties). As a Category "10" community, in order for the Township of Brick to join the CRS program, it must be in full compliance with the NFIP and then submit an application for the CRS program. The Township must have adopted this Plan in order to receive credit for the Plan once the Township is accepted into the program. Enrolling in the CRS program will help the Township receive a reduction in flood insurance premium for performing activities that reduce the impacts of flooding. This will be a huge benefit to Township residents, as there are currently 4,220 policies in-force, with an annual total premium of \$4,275,299 (FEMA NFIP Statistics, 2015). Joining the CRS program will also encourage the Town to carry out flood mitigation actions on a regular basis.

### **1.1.2 Organizations Involved in the Mitigation Planning Effort**

The Township of Brick intends to implement this Plan with the participation of its various departments, organizations and governing body, as well as by coordinating with relevant Federal and state 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.

### **1.1.3 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 the State of New Jersey, the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Office of Emergency Management (NJOEM) provided hazard mitigation planning assistance to the Township.

Additional input and support for this planning effort was obtained from a range of agencies and through public involvement (as discussed in Section 3). Oversight for the preparation of this plan was provided by the Planning Committee, which includes representatives from:

- Brick Township Council
- Brick Township Department of Public Works
- Brick Township Engineer/Floodplain Administrator
- Brick Township Office of Land Use and Planning
- Brick Township Planning Board



- Brick Township Building Department
- Brick Township Office of Emergency Management (OEM)
- Brick Township Municipal Utilities Authority (MUA)
- Barnegat Bay Partnership
- Jacques Cousteau National Estuarine Research Reserve
- Members of the public

The Brick Township Office of Land Use and Planning provides oversight on land use and comprehensive planning. Additionally the Brick Township Construction Code Official (of the Building Department) is responsible for enforcing codes within the Town limits. Finally, the floodplain administrator is one and the same with the Township Engineer and provides oversight for all floodplain related issues.

In addition, a representative from FEMA attended committee meetings as available and contributed to the public discussion and a member of the press attended selected committee and public meetings and supported the dissemination of information on the planning process to the public.

This Flood Management Plan was prepared in accordance with the following regulations and guidance:

- 44 Code of Federal Regulations part 78.5 - Flood Management Plan Development in accordance with the National Flood Insurance Act of 1968 (42 U.S.C. 4104c et seq.
- CRS Coordinator’s Manual (FIA-15/2013)
- 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>.

## 1.2 GUIDELINES FOR FLOOD PLANNING

The first priority for this plan is to benefit the citizens of the Township of Brick by providing the greatest possible protection against the hazard posed by potential flooding. In addition, the plan has been developed to follow as closely as feasible the guidelines for flood planning presented by FEMA for CRS program credits.

## 1.3 CRS STEPS FOR COMPREHENSIVE FLOOD MANAGEMENT PLAN

Developing a comprehensive flood management plan is among the activities that earn CRS credits toward reduced flood insurance rates. To earn CRS credit for a flood management plan, the community’s process for developing the plan must include at least one item from each of 10 steps (see Appendix B for details):

- Planning process steps:
  - Step 1, Organize
  - Step 2, Involve the public



- Step 3, Coordinate
- Risk assessment steps:
  - Step 4, Assess the hazard
  - Step 5, Assess the problem
- Mitigation strategy steps:
  - Step 6, Set goals
  - Step 7, Review possible activities
  - Step 8, Draft an action plan
- Plan maintenance steps:
  - Step 9, Adopt the plan
  - Step 10, Implement, evaluate and revise.

## 1.4 IMPLEMENTATION OF THE PLANNING PROCESS

To support the planning process to develop this Flood Management Plan (FMP), the Township of Brick has accomplished the following:

- Developed a FMP Committee
- Profiled the Flood Hazard
- Estimated the inventory at risk and potential losses from flood hazards
- Perform a comprehensive review of mitigation alternatives
- Developed mitigation actions and goals that address the various hazards that impact the area
- Developed mitigation plan maintenance procedures to be executed after adoption of plan.

To address the requirements of CRS and better understand their potential vulnerability to and losses associated with hazards of concern, the Township of Brick used the Hazards U.S. – Multi-Hazard (HAZUS-MH) software package (discussed in greater detail later in this Plan) supplemented by local data, as feasible, 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 FMPs.

As required by CRS, the planning process has engaged the public throughout providing 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 Flood Management Plan documents the process and outcomes of the Township's 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.

### 1.4.1 Benefits of Mitigation Planning

The planning process will help prepare citizens and government agencies to better respond when disasters occur. Also, mitigation planning allows the Township 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 flood hazards faced by Township of Brick
- 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 and structures and reduced repair costs

### 1.4.2 Benefits of Participating in the CRS

The objective of the CRS is to support the goals of the NFIP. To do this, the CRS provides insurance premium rate discounts to policy holders in recognition that their communities implement activities that work toward its three goals of reducing flood damage, supporting the insurance part of the NFIP, and pursuing a broad approach to floodplain management.

In this process, the “community” part of the CRS program includes state and regional agencies and private organizations that support and assist city, county, and tribal governments that are participants in the NFIP. A closer look at how communities can implement these three goals is as follows:

- 1) Reduce flood damage to insurable property. Communities are encouraged to map and provide regulatory flood data for all their flood hazards. The data should be used in their regulatory programs and shared with all users and inquirers. New buildings in mapped floodplains should be protected from the known local flood hazards, which may require setting standards higher than the minimum national criteria of the NFIP. Communities are encouraged to reduce the exposure of existing buildings to flood damage, especially repetitive loss properties.
- 2) Strengthen and support the insurance aspects of the NFIP. Communities should encourage their residents to be aware of their flood risk and to purchase and maintain a flood insurance policy to protect themselves from the financial impacts of flooding. Communities should also help make the program more financially sound by implementing mapping and information programs that help to evaluate accurately the individual property risk for flood insurance rating purposes, expand the policy base, and reduce repetitive losses.
- 3) Encourage a comprehensive approach to floodplain management. Insurable property is not the only floodplain management concern of communities, so the CRS recognizes efforts that protect lives; further public health, safety, and welfare; and protect natural floodplain functions. The community staff should understand the physical and biological processes that form and change floodplains and watersheds and take steps to deal with flooding, erosion, habitat loss, water quality, and special flood-related hazards. Floodplain management programs need to protect buildings, infrastructure, critical facilities, and natural functions and ensure that new development does not cause adverse impacts on others. A comprehensive approach uses all tools, including public information, planning, regulatory authorities, financial support, public works activities, and emergency management (CRS Coordinator’s Manual, FIA-15/2013).

## 1.5 HOW TO USE THIS PLAN

This Flood Management Plan is organized into the following primary parts, which follow the organization of the CRS steps for floodplain planning.

- Part 1—Planning Process and Project Background
  - **Section 1**, Introduction: Overview and summary of the Township of Brick Flood Management Plan



- **Section 2**, Plan Adoption: Information regarding the adoption of the Plan by the Township of Brick
- **Section 3**, Planning Process: A description of the Plan methodology and development process, FMP Committee and stakeholder involvement efforts, and a description of how this Plan will be incorporated into existing programs.
- Part 2—Risk Assessment
  - **Section 4**, Township Profile: An overview of the Township of Brick, including: (1) general information, (2) population and demographics, (3) general building stock inventory, (4) land use trends, (5) future growth and development, and (6) critical facilities.
  - **Section 5**, Risk Assessment: Documentation of the hazard identification and ranking process, hazard profiles, and results of the vulnerability assessment (estimates of the impact of hazard events on life, safety and health, general building stock, critical facilities, the economy and future growth and development). Description of the status of local data and planned steps to improve local data to support mitigation planning.
- Part 3—Mitigation Strategy
  - **Section 6**, Mitigation Strategy: Information regarding the mission statement, mitigation goals, objectives, capability assessment and mitigation action items identified by the Township in response to priority hazards of concern. Also under this section is a comprehensive review of alternatives considered with an emphasis on strengths, weaknesses, obstacles and opportunities within the community.
- Part 4—Plan Maintenance
  - **Section 7**, Plan Maintenance Procedures: The system established by the Township of Brick to monitor, evaluate, maintain and update the Plan.

Each part includes elements identified in the CRS’s 10 steps. These steps are often cited within each subsection to illustrate compliance with the requirement.

The following appendices provided at the end of the plan include information or explanations to support the main content of the plan:

- Appendix A—A glossary of acronyms and definitions
- Appendix B—Description of CRS Planning Requirements
- Appendix C—Public outreach information, including the questionnaire and summary and documentation of public meetings
- Appendix D—A template for progress reports to be completed as this plan is implemented
- Appendix E—Repetitive Loss Area Maps (Redacted from public document and retained by Township of Office of Land Use and Planning.)
- Appendix F - Resolution to Form Planning Committee
- Appendix G - Natural Beneficial Functions Plan