

In September 2006, the Borough of Avalon completed the five-year update of its Flood Mitigation Plan (FMP). The FMP describes the flood mitigation planning efforts of the Borough, following FEMA's Community Rating System (CRS) 10-step planning process. This evaluation report is prepared in accordance with the procedures established in Section V of the FMP ("Plan Maintenance").

On September 22, 2008 the Flood Mitigation Planning Committee conducted a Plan Review Meeting to review the current plan, assess progress and effectiveness of the plan objectives, and compile and discuss suggested changes or additions to the plan. The following members of the Flood Mitigation Planning Committee, Borough representatives, and members of the public attended the meeting:

- ❑ Salvatore DeSimone, Construction Official (CRS Coordinator)
- ❑ Thomas Thornton, PE, Hatch Mott MacDonald, Borough Engineer
- ❑ William Macomber, Acting Public Works Director
- ❑ Ed Dean, Chief, Avalon Fire Department
- ❑ Paul Short, Sr., Avalon Planning Board Secretary, Deputy Emergency Management Coordinator
- ❑ John Tracy, Avalon Construction Office, Building Sub Code Official
- ❑ David Torroni, Avalon Resident

In accordance with the schedule contained in the Flood Mitigation Plan, the Flood Mitigation Planning Committee conducted a Plan Revision Meeting on October 15, 2008 to review the revisions to the draft evaluation report. This document constitutes the draft evaluation report required by the FMP to be completed in September and revised per the above referenced Flood Mitigation Planning Committee review meetings. Based on the discussions at these meetings, proposed revisions to the FMP will consist of minor updates to the ongoing flood mitigation activities conducted by the Borough, and an updated list of Planning Committee Members. Although these changes are minor, the FMP will be updated in accordance with the Plan Maintenance schedule outlined in Section V of the FMP. This process includes: preparing the evaluation report and draft revisions; conducting a plan revision meeting to review evaluation report and draft revisions; providing the evaluation report to the media and making it available to the public; conducting a public meeting to obtain input from Borough Council and the public; finalizing the revised plan; and adopting the changes to the FMP by Borough Council.

Since the report is not scheduled to be finalized until January 2009, the evaluation report and draft revisions will be submitted to FEMA under the annual Community Rating System (CRS) Recertification under Activity 510. The final copy of the report will be forwarded to FEMA upon completion.

Progress on the four major elements of the FMP were reviewed, including: 1) Planning Process, 2) Risk Assessment, 3) Mitigation Strategy, and 4) Plan Maintenance.

Planning Process

This section of the FMP addresses the process of implementing the Borough's Flood Mitigation Plan. The Borough continues to implement the FMP in accordance with FEMA's 10-step process as described in this section. Membership of the Flood Mitigation Planning Committee has changed since the 2006 FMP revisions. The list of members contained in Section II.A of the FMP should be revised as follows:

- ❑ Salvatore DeSimone, Construction Official (CRS Coordinator)
- ❑ Martin L. Pagliughi, Mayor and Emergency Management Coordinator
- ❑ Harry deButts, Senior Deputy Emergency Management Coordinator
- ❑ William Macomber, Acting Public Works Director
- ❑ Thomas Thornton, PE, Hatch Mott MacDonald, Borough Engineer
- ❑ Richard Dean, Borough Council Member
- ❑ Ed Dean, Chief, Avalon Fire Department
- ❑ Paul Short, Sr., Avalon Planning Board Secretary, Deputy Emergency Management Coordinator
- ❑ John Tracy, Avalon Construction Office, Building Sub Code Official

Risk Assessment

This section of the FMP assesses both the hazards facing the Borough and the vulnerability of the Borough to those hazards. The hazards facing the Borough – wind, storm surge, and rain – have not changed. Due to the nature of these hazards, the Borough's overall vulnerability remains the same, although the Borough's continuing implementation of specific projects (described in the following section) mitigates the potential damage from the hazards.

Mitigation Strategy

This section of the FMP presents the Borough's strategy to mitigate the damage from the applicable hazards by: outlining the goals and strategies adopted by the Borough to mitigate the effects of the hazards; reviewing possible flood mitigation activities; and presenting an Action Plan consisting of activities (both proposed and ongoing) that will support the Borough's flood mitigation goals and strategies. The following list of activities indicates the Borough's compliance with the Action Plan, and includes both ongoing activities, completed activities listed in the Action Plan, and new or proposed activities. The activities are listed in order of the general outline of the Action Plan:

Preventative

1. The Borough continues to conduct the following preventative programs and activities:
 - a. Monitoring and surveying of the beaches
 - b. Enforcement of the Stormwater Management Ordinances
 - c. Pursuit of opportunities to preserve open space
 - d. Enforcement of building codes and continual re-evaluation of ordinances for potential positive amendments
 - e. Regular beach and dune maintenance activities
2. To minimize flooding, in February 2008 the Borough adopted an ordinance (27:7.3.u) requiring that all roof runoff from new construction be recharged to the ground through direct connection to subsurface stone trenches.

Property Protection

1. The Avalon Construction Office continues to provide informational materials to homeowners, builders, and realtors regarding floodplain management.
2. The Borough continues to implement the Repetitive Loss Reduction Plan.
3. The Borough continues to pursue available funding opportunities to address repetitive loss properties and/or mitigate the impact of flooding.
4. The Borough continues to require one-foot freeboard for new construction, i.e. finished floor elevation of all new construction is required to be one foot above base flood elevation.

Natural Resources Protection

The Borough continues to conduct the following Natural Resources Protection programs and activities:

1. Annual dune grass planting, utilizing volunteers from local civic groups and schools
2. Protection of the high dunes
3. Stream scouring program
4. Illicit connection program
5. Pesticide reduction program

Emergency Services

The Borough is proceeding with the following activities related to Emergency Services:

1. Flood Warning System
 - a. Initiated planning efforts for the expansion of the Borough's existing emergency warning system to include additional sirens to increase coverage and improve effectiveness.
 - b. Established Reverse 911 system.
 - c. Installed additional signs to supplement existing emergency alert system on Borough's AM radio station. In 2008 an additional emergency alert sign was placed along Avalon Boulevard east of the Gravens Thorofare Bridge.
2. Flood response system.
 - a. Continuing to pursue preparation of pre-disaster bid documents for contract with disaster-recovery contractor for debris removal.
 - b. Continuing to pursue preparation of pre-disaster contracts for providing home and family services for emergency personnel during disaster.
 - c. In 2008 Avalon updated their Emergency Operating Plan.
 - d. Cape May County recently awarded a contract for the development of a Multi-Jurisdictional All Hazards Mitigation Plan in accordance with FEMA requirements. Avalon intends to actively participate in this process.

Structural Projects

1. In 2008 the Borough authorized the design of the installation of tide check valves and various stormwater system improvements in the 21st Street and 25th Street island areas. This project is scheduled to be completed in early 2009.
2. In early summer 2008, the Borough, in partnership with the State of New Jersey, completed a beach renourishment project consisting of pumping approximately 225,000 CY of beach-quality sand from the designated borrow area in Townsends Inlet. The project was completed in June 2008. The project provided protection to the public and private properties in the vicinity of the beach between 9th Street and 18th Street, after severe erosion from multiple storm events had left the dune system, stone revetment, and timber oceanfront bulkhead vulnerable to storm damage.
3. Cape May County is currently preparing plans for the reconstruction of Ocean Drive in Avalon, including stormwater system upgrades. It is anticipated that the project will be conducted in the spring of 2009. The County is also planning to complete additional stormwater system improvements, designed by the Borough, which will significantly reduce flooding along Ocean Drive.
4. The Borough is currently replacing the bulkhead along the back bay at 8th Street. The top of the new bulkhead will be established at 7.5' (NGVD 1929). This will provide a significant reduction in flooding at an important transportation route, since the overtopping of the existing bulkhead during high tidal events flooded the intersection of 8th Street and Ocean Drive near the vital connection to Sea Isle City via the Townsends Inlet Bridge. The Borough also plans to replace a deteriorated bulkhead at 5th Avenue immediately north of 20th Street. This project will also reduce flooding in a low-lying area prone to flooding.
5. In 2008 the Borough authorized a major evaluation of the existing stormwater outfall system, bulkheads, and public piers. The study will include: evaluating the condition of these structures; prioritizing deficiencies according to condition, importance, and threat to public safety; and recommendations for systematic upgrades. The study is anticipated to be completed in 2008.
6. In August 2007 the Borough conducted a workshop with leading authorities on beach erosion to discuss the Borough's options on protecting the north-end beaches from storm and erosive forces. Attendees included representatives from the U.S. Army Corps of Engineers, New Jersey Department of Environmental Protection, Hatch Mott MacDonald, and experts from various colleges and universities. It was agreed that the State would authorize a study of the problem by

Stevens Institute of Technology/Davidson Laboratories through the New Jersey Coastal Protection Technical Assistance Program (NJCPTAS).

7. In August 2007, the Borough awarded a contract for a major addition to the Public Safety Building, including significant expansions and upgrades to the Emergency Operations Center. Improvements include: upgrades to meet FEMA standards, updating of radio equipment, and an emergency generator. The project is currently under construction.
8. The replacement of private bulkheads throughout the Borough to the required elevation of 7.5' provides increased flood protection on an ongoing basis. In 2008, the Avalon Construction Office issued eighteen (18) new bulkhead construction permits.

Plan Maintenance

The Flood Mitigation Plan will be updated in accordance with the Plan Maintenance schedule contained in Section V of the FMP. Changes will include updating the list of members of the Flood Mitigation Planning Committee and updating the Action Plan to include the above referenced activities.