

**Monmouth County Multi-Jurisdictional All Natural Hazards Pre-  
Disaster Mitigation Plan  
Annual Progress Report for 2010**

**Reporting Period:**

April 23, 2008 (FEMA approval) through June 1, 2010

**Background:**

Monmouth County and its planning partners have developed the Monmouth County Multi-Jurisdictional All Natural Hazards Pre-Disaster Mitigation Plan (Referred to as HMP-Hazard Mitigation Plan) to provide a guide for reducing risks from all natural hazards by identifying resources, information, and strategies for risk reduction. Following the requirements of the Disaster Mitigation Act of 2000 and funded by a FEMA (Federal Emergency Management Agency) grant, the County began an 18 month planning process that would provide many benefits for the County and its partners from this single planning effort. These benefits are associated with grant funding eligibility. The HMP was adopted by Monmouth County via resolution and was approved by FEMA Region II for compliance with Section 201.6, Chapter 44 of the Code of Federal Regulations (44CFR) on April 23, 2008. By completing this process, the County and its partners have achieved compliance under the Disaster Mitigation Act, and made possible hazard mitigation grant funding opportunities afforded under the Robert T. Stafford Act. Copies of the approved HMP are available at the County Office of Emergency Management, Municipal Offices and also on-line at:

<http://www.co.monmouth.nj.us>

Monmouth County and 52 of its 53 municipalities are partners in this HMP. The Borough of Roosevelt did not participate. All participating jurisdictions have agreed to participate and support the plan via ordinance. These Planning Committee partners are shown in the following table. All points of contact are within each Municipal Office of Emergency Management.

Aberdeen
Allenhurst
Allentown
Asbury Park
Atlantic Highlands
Avon-by-the-Sea

Belmar
Bradley Beach
Brielle
Colts Neck
Deal
Eatontown
Englishtown
Fair Haven
Farmingdale
Freehold Borough
Freehold Township
Hazlet
Highlands
Holmdel
Howell
Interlaken
Keansburg
Keyport
Little Silver
Lake Como
Loch Arbor
Long Branch
Manalapan
Manasquan
Marlboro
Matawan
Middletown

Millstone
Monmouth Beach
Neptune City
Neptune Twp.
Oceanport
Ocean Twp.
Red Bank
Rumson
Sea Bright
Sea Girt
Shrewsbury Borough
Shrewsbury Twp.
Spring Lake
Spring Lake Heights
Tinton Falls
Union Beach
Upper Freehold Twp.
Wall Twp.
West Long Branch

**Purpose:**

The purpose of this report is to provide the County, municipal partners, stakeholders and the citizens an annual update on the implementation of the action plan identified in the Monmouth County Multi-Jurisdictional All Natural Hazards Pre-Disaster Mitigation Plan (HMP). This report has been prepared, reviewed and confirmed by the Steering Committee in accordance with Section 9 of the Plan. The Steering Committee discussed this progress report at their annual meeting held July 21, 2010. The objective of this annual evaluation is to ensure that there is a continuous planning process that will keep the plan dynamic and responsive to the needs and capabilities of the planning partners. This report will discuss the following:

- A. Natural Hazard Events that have occurred within the last year**
- B. Changes in risk exposure within the planning area**
- C. Mitigation Proposals**
- D. Review of the action plan(s)**
- E. Changes in capability within the planning area that could impact plan implementation**
- F. Recommendations for changes/enhancement**

A Steering Committee was assembled to oversee the development of the HMP, consisting of representatives from numerous Monmouth County Departments/Offices/Agencies, including: OEM (Office of Emergency Management), Planning Board, Public Works & Engineering, Highway, (GIS) Geographic Information Systems, Mosquito Commission, Park System, Health, Buildings & Grounds, as well as the Manasquan River Regional Sewage Authority and four (4) representatives from participating jurisdictions. The Steering Committee was charged with the following:

- Establish Plan development goals;
- Establish a timeline for completion of the Plan;
- Ensure that the Plan meets the requirements of DMA 2000 and FEMA and NJOEM guidance;
- Solicit and encourage the participation of regional agencies, a range of stakeholders, and citizens in the Plan development process;
- Assist in gathering information for inclusion in the Plan, including the use of previously developed reports and data;
- Organize and oversee the public involvement process;
- Develop, revise, adopt, and maintain the Plan.

The following list acknowledges the members of the Steering Committee at the time of the plan's approval.

## Steering Committee Members:

Margaret Murnane	MC OEM
Michael Oppegaard	MC OEM
Robert Swannack	MC OEM
Teri O'Connor	MC Administrator's Office
Vicki Thompson	MC Mosquito Commission
Andrea Plotnick	MC Health Dept
Bill Simmons	MC Health Dept
Eric Anderson	MC GIS
John Tobia	MC Public Works & Eng
Ken Elmer	MC Highway
Larry Zaayenga	MC Planning Board
Vic Terwillger	MC PW & E
Dave Compton	MC Parks System
Inkyung Engelhart	MC Engineering
Joseph Ettore	MC Engineering
Robert Lahey	MC B&G
Turner Shell	MC Planning Board
Jerry Cevetello	MRRSA
Capt. Mauro Baldanza	Oceanport OEM
Charlie Rogers	Middletown OEM
Ron Sanasac	Howell OEM
Mike Bascom	Neptune OEM

### **A. Natural Hazard Events within the Planning Area**

During the reporting period, there were several significant natural hazard events that had measurable impacts on people and/or property within the planning area. Monmouth County felt the effects of several winter snow storms and coastal storms. There were several Presidential Declarations in the State. Monmouth County was included in the Presidential Declaration for the March coastal storm event. HMGP (Hazard Mitigation Grant Program) funding became available to the entire State. *Spring Lake* is the only Monmouth County jurisdiction that applied for *HMGP* funding in order to mitigate flooding issues at Wreck Pond. This project will also benefit three other jurisdictions affected by Wreck Pond flooding issues, they are: Sea Girt, Spring Lake Heights and Wall Township.

## **B. Changes in Risk exposure within the Planning Area**

A total of six natural hazards of concern were identified as significant hazards affecting the entire planning area:

- Windstorm
- Coastal Storm
- Hurricane
- Flood
- Severe Storms
- Snow

Other natural hazards of concern have occurred within Monmouth County, but have a low potential to occur and/or result in low impacts within the County. Therefore, these hazards were not addressed. During the reporting period, there were several natural hazard events within the planning area. These events do not change the probability of occurrence, or ranking of risk for the natural hazards previously addressed by the HMP (Hazard Mitigation Plan).

## **C. Mitigation Proposals**

During the planning period, no grants were received from FEMA during the reporting period. Seven Monmouth County jurisdictions, as well as the County, are actively formulating project ideas or seeking funding for potential project grants. All are in various stages of the process. These jurisdictions are: Atlantic Highlands, Marlboro, Neptune Township, Ocean Township, Sea Bright, Keansburg, Union Beach and the County.

### **1.) ATLANTIC HIGHLANDS:**

During the March 13, 2010 rain/nor'easter event, we had several properties that were damaged by the amount of rain water that flowed from the highest portion of their property to the bottom of the slope where there is open space. The wash out caused deck, patio and structural issues for several homes which are located on Ocean Blvd in Atlantic Highlands. The area where these homes are located is a high bluff/hill which overlooks the Atlantic Highlands Marina, the municipal dredge pit and the Bayshore Trail. Our municipal harbor is one of five that are owned and operated by a municipality in New Jersey. The Bayshore Trail, a.k.a. Henry Hudson Trail, is a unique trail that runs from Aberdeen (Monmouth County) to Highlands / Sandy Hook (Monmouth County). The Homeowners have hired a consultant to perform the BCA (Benefit Cost Analysis). If the BCA is a 1.0 or higher, the Borough of Atlantic Highlands will work with the same consultant and apply and submit a project application for FY2011 on the behalf of the homeowners.

## 2.) NEPTUNE TOWNSHIP:

Neptune Township is proposing to install Tide Flex valves and bulkheads along the Shark River to reduce flooding in residential and business districts. The Township will match funds through capital appropriations.

The two proposed project application(s) for 2010 will be submitted, one under FMA (Flood Mitigation Assistance) and one under PDM-C (Pre-Disaster Mitigation – Competitive). For the proposed 2011 project, Neptune will be applying for one project under PDM-C.

### Worksheet # 1: Progress Report

Progress Report Period: \_\_\_\_\_ to 7-14-2010  
(date) (date)

Project Title: Township of Neptune Outfall Valve Installation Project ID#: NJ – 2010 – 005

Responsible Agency: Township of Neptune

Address: 25 Neptune Boulevard

City/County: Neptune Township, Monmouth County

Contact Person: Michael Bascom Title: CMFO/CTC

Phone #(s): 732-988-5200 ext. 241 e-mail address: mbascom@neptunetownship.org

List Supporting Agencies and Contacts: \_\_\_\_\_

\_\_\_\_\_

Total Project Cost: \$694,206.00 Anticipated Cost Overrun/Underrun: \_\_\_\_\_

\_\_\_\_\_

Date of Project Approval: \_\_\_\_\_ Start date of the project: \_\_\_\_\_

Anticipated completion date: \_\_\_\_\_

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Milestones	Complete	Projected Date of Completion


**Plan Goal(s)/Objective(s) Addressed:**

Goal: \_\_\_\_\_

Objective: \_\_\_\_\_

**Indicator of Success** (e.g., losses avoided as a result of the acquisition program):

*In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.*

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**Status** (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

(1) ☐ Project on schedule

(2) ☐ Project completed

(3) ☐ Project delayed\*

\*explain: \_\_\_\_\_

(4) ☐ Project canceled

Project Cost Status

(1) ☐ Cost unchanged

(2) ☐ Cost overrun\*

\*explain: \_\_\_\_\_

(3) ☐ Cost underrun\*

\*explain: \_\_\_\_\_

**Summary of progress on project for this report:**

A. What was accomplished during this reporting period?

B. What obstacles, problems, or delays did you encounter, if any?

C. How was each problem resolved?

**Next Steps:** What is/are the next step(s) to be accomplished over the next reporting period?

**3a.) MARLBORO:** Proposes stream cleaning of 3 streams/brooks within its jurisdiction.

**Worksheet # 1: Progress Report**

Progress Report Period: January 1, 2010 to July 16, 2010  
(date) (date)

Project Title: Deep Run Stream Cleaning Project ID#: 1

Responsible Agency: Marlboro Township Public Works

Address: 1979 Township Drive

City/County: Marlboro / Monmouth

Contact Person: Bob DiMarco Title: Public Works Superintendent

Phone #(s): 732-536-0188 e-mail address: bdimarco@marlboro-nj.gov

List Supporting Agencies and Contacts: CME (Township Engineer) Joe Giddings; 732-462-7400, ext. 119

Total Project Cost: \$ Undetermined to date Anticipated Cost Overrun/Underrun: Not expected

Date of Project Approval: 2004 Start date of the project: Spring 2004

Anticipated completion date: October 2011

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

Clear streambed of sediment and obstructions as permits are allocated through NJDEP.

Milestones	Complete	Projected Date of Completion
Cleared and desilted 1000' of 1 tributary	XX	June, 2005
Cleared and desilted 500' of 2 <sup>nd</sup> tributary	XX	August, 2009
Received permits for cleaning 2 sections	XX	July, 2010
Clear areas under current permits		Fall, 2010
Submit applications for additional areas to be cleared		Spring, 2011


**Plan Goal(s)/Objective(s) Addressed:**

Goal: Reduce possibility of damage due to flooding\_\_\_\_\_

Objective: Clear streambed of debris and obstructions\_\_\_\_\_

**Indicator of Success** (e.g., losses avoided as a result of the acquisition program):

*In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.*

Work previously completed on other sections has improved drainage in these areas and reduced the  
Severity and occurrences of riverine flooding  
 \_\_\_\_\_

**Status** (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

(1) ☐ Project on schedule

(2) ☐ Project completed

(3) ☒ Project delayed\*  
 \*explain: permitting process has taken\_  
Longer than anticipated

(4) ☐ Project canceled

Project Cost Status

(1) ☐ Cost unchanged

(2) ☐ Cost overrun\*  
 \*explain: \_\_\_\_\_  
 \_\_\_\_\_

(3) ☐ Cost underrun\*  
 \*explain: \_\_\_\_\_  
 \_\_\_\_\_

**Summary of progress on project for this report:**

- D. What was accomplished during this reporting period? Obtained DEP permits for 2 additional areas to be cleared.
- E. What obstacles, problems, or delays did you encounter, if any? Extended time period for permitting to be completed.
- F. How was each problem resolved? Perseverance and continuous follow-ups through engineering.

**Next Steps:** What is/are the next step(s) to be accomplished over the next reporting period? Complete cleaning the currently permitted areas and file for the next sections to be cleared.

**Other comments:**

**3b.) MARLBORO (con't):**

**Worksheet # 1: Progress Report**

Progress Report Period: January 1, 2010\_\_\_\_\_ to July 16, 2010\_\_\_\_\_  
(date) (date)

Project Title: Melvins Brook Cleaning Project ID#: 2\_\_\_\_\_

Responsible Agency: Marlboro Township Public Works\_\_\_\_\_

Address: 1979 Township Dr\_\_\_\_\_

City/County: Marlboro / Monmouth\_\_\_\_\_

Contact Person: Bob DiMarco\_\_\_\_\_ Title: Public Works Superintendent\_\_\_\_\_

Phone #(s): 732-536-0188\_\_\_\_\_ e-mail address: bdimarco@marlboro-nj.gov\_\_\_\_\_

List Supporting Agencies and Contacts: CME (Township Engineer) Joe Giddings 732-462-7400, ext 119\_\_\_\_\_  
\_\_\_\_\_

Total Project Cost: \$\_\_\_\_\_ undetermined Anticipated Cost Overrun/Underrun: \_\_\_\_\_  
\_\_\_\_\_

Date of Project Approval: January, 2010\_\_\_\_\_ Start date of the project: Spring, 2010\_\_\_\_\_

Anticipated completion date: 2012\_\_\_\_\_

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

Desilt and clear streambed of obstructions from the Marlboro Township Municipal Complex through Manalapan Township to its deposit in McGelliards Brook  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Milestones	Complete	Projected Date of Completion
Application for initial permits filed	XX	
Desilt and clear permitted areas		Fall, 2010
File for DEP Permits for remaining sections		Spring 2011

**Plan Goal(s)/Objective(s) Addressed:**

Goal: Reduce the possibility of damage due to flooding\_\_\_\_\_

Objective: Clear streambed of sediment and debris\_\_\_\_\_

**Indicator of Success** (e.g., losses avoided as a result of the acquisition program):

*In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.*

This will be the first areas completed for this project. We anticipate greatly improved drainage throughout the Area.

**Status** (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

(1) ☒ Project on schedule

(2) ☐ Project completed

(3) ☐ Project delayed\*

\*explain: \_\_\_\_\_

(4) ☐ Project canceled

Project Cost Status

(1) ☒ Cost unchanged

(2) ☐ Cost overrun\*

\*explain: \_\_\_\_\_

(3) ☐ Cost underrun\*

\*explain: \_\_\_\_\_

**Summary of progress on project for this report:**

G. What was accomplished during this reporting period? Reviewed project with Township Engineer; Filed for initial DEP Permits

H. What obstacles, problems, or delays did you encounter, if any? None at this time.

I. How was each problem resolved?

**Next Steps:** What is/are the next step(s) to be accomplished over the next reporting period? Complete clearing initial areas if not done; continue filing permits for remainder of sections yet to be done.

**Other comments:**

**3c.) MARLBORO (con't):**

**Worksheet # 1: Progress Report**

Progress Report Period: January 1, 2010 to July 16, 2010  
(date) (date)

Project Title: Yellow Brook Stream Cleaning Project ID#: 3

Responsible Agency: Marlboro Township Public Works

Address: 1979 Township Drive

City/County: Marlboro / Monmouth

Contact Person: Bob DiMarco Title: Public Works Superintendent

Phone #(s): 732-536-0188 e-mail address: bdimarco@marlboro-nj.gov

List Supporting Agencies and Contacts: CME (Township Engineer) Joe Giddings, 732-462-7400, ext. 119

Monmouth County Mosquito Commission; Vince Poulsen, 732-542-3630

Total Project Cost: \$Undetermined Anticipated Cost Overrun/Underrun:

Date of Project Approval: Spring, 2010 Start date of the project: Spring, 2010

Anticipated completion date: Spring, 2012

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

Desilt and clear area of the streambed and its tributaries from its inception near Dutch Lane Road through its deposit into Bucks Pond in Colts Neck Township.

Milestones	Complete	Projected Date of Completion
Reviewed project with Township Engineer and Monmouth County Mosquito Commission. County agreed to do first phase.	XX	
County acquiring permits for initial phase		Fall 2010
Clear areas as allowed with initial permit		Fall 2010 / Spring 2011
File for permits to clear remaining areas		Spring / Summer 2011
Clear areas as allowed with DEP Permits		Fall 2011 / Spring 2012

**Plan Goal(s)/Objective(s) Addressed:**

Goal: Reduce the possibility of damage due to flooding. \_\_\_\_\_

Objective: Clear streambed of silt and debris. \_\_\_\_\_

**Indicator of Success** (e.g., losses avoided as a result of the acquisition program):

*In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.*

This will be the first work accomplished on this project. We anticipate a reduction in street flooding and  
Infrastructure damage upon completion of the project.  
\_\_\_\_\_

**Status** (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

(1) ☒ Project on schedule

(2) ☐ Project completed

(3) ☐ Project delayed\*

\*explain: \_\_\_\_\_

(4) ☐ Project canceled

Project Cost Status

(1) ☒ Cost unchanged

(2) ☐ Cost overrun\*

\*explain: \_\_\_\_\_

(3) ☐ Cost underrun\*

\*explain: \_\_\_\_\_

**Summary of progress on project for this report:**

- J. What was accomplished during this reporting period? Reviewed project with Twp. Engineer and County representatives. Permits filed for initial project areas.
- K. What obstacles, problems, or delays did you encounter, if any? Permitting process is time consuming.
- L. How was each problem resolved? Persistent follow-ups through engineering.

**Next Steps:** What is/are the next step(s) to be accomplished over the next reporting period? Complete clearing initial sections as permits allow. File for additional permits for remaining sections.

#### 4.) OCEAN TOWNSHIP:

##### Worksheet # 1: Progress Report

Progress Report Period: \_\_\_\_\_ to \_\_\_\_\_  
(date) (date)

Project Title: Poplar Brook Mitigation Project Project ID#: \_\_\_\_\_

Responsible Agency: Twp of Ocean

Address: 399 Monmouth Rd,

City/County: Oakhurst, Monmouth

Contact Person: Tom Caruso Title: Director of Emergency Management

Phone #(s): 732-531-5000 x378 e-mail address: otoem@optonline.net

List Supporting Agencies and Contacts: \_\_\_\_\_

Total Project Cost: \$ 4,461,499.59 Anticipated Cost Overrun/Underrun: \_\_\_\_\_

Date of Project Approval: \_\_\_\_\_ Start date of the project: \_\_\_\_\_

Anticipated completion date: \_\_\_\_\_

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

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Milestones	Complete	Projected Date of Completion

**Plan Goal(s)/Objective(s) Addressed:**

Goal: To prevent flooding in senior citizens residences

Objective: \_\_\_\_\_

**Indicator of Success** (e.g., losses avoided as a result of the acquisition program):

*In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.*

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**Status** (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

(1) ☐ Project on schedule

(2) ☐ Project completed

(3) ☐ Project delayed\*

\*explain: \_\_\_\_\_

(4) ☐ Project canceled

Project Cost Status

(1) ☐ Cost unchanged

(2) ☐ Cost overrun\*

\*explain: \_\_\_\_\_

(3) ☐ Cost underrun\*

\*explain: \_\_\_\_\_

**Summary of progress on project for this report:**

M. What was accomplished during this reporting period?

N. What obstacles, problems, or delays did you encounter, if any?

O. How was each problem resolved?

**Next Steps:** What is/are the next step(s) to be accomplished over the next reporting period?

## 5.) SEA BRIGHT:

### Worksheet # 1: Progress Report

Progress Report Period: \_\_\_\_\_ to \_\_\_\_\_  
(date) (date)

Project Title: BULKHEAD AND PUMP PROJECT  
Project ID#:   

Responsible Agency: BORO OF SEA BRIGHT \_\_\_\_\_

Address: 1167 OCEAN AVE \_\_\_\_\_

City/County: SEA BRIGHT, NJ / MONMOUTH \_\_\_\_\_

Contact Person: PATRICK S. MASON JR. \_\_\_\_\_ Title: OEM COORDINATOR \_\_\_\_\_

Phone #(s): 732-842-0099 \_\_\_\_\_ e-mail address: seabrightoem@gmail.com \_\_\_\_\_

List Supporting Agencies and Contacts: \_\_\_\_\_

Total Project Cost: \$ \_\_\_\_\_ Anticipated Cost Overrun/Underrun: \_\_\_\_\_

Date of Project Approval: \_\_\_\_\_ Start date of the project: \_\_\_\_\_

Anticipated completion date: \_\_\_\_\_

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase).

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Milestones	Complete	Projected Date of Completion

**Plan Goal(s)/Objective(s) Addressed:**

Goal: \_\_\_\_\_

Objective: \_\_\_\_\_

**Indicator of Success** (e.g., losses avoided as a result of the acquisition program):

*In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.*

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**Status** (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

(1) ☐ Project on schedule

(2) ☐ Project completed

(3) ☐ Project delayed\*

\*explain: \_\_\_\_\_

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(4) ☐ Project canceled

Project Cost Status

(1) ☐ Cost unchanged

(2) ☐ Cost overrun\*

\*explain: \_\_\_\_\_

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(3) ☐ Cost underrun\*

\*explain: \_\_\_\_\_

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**Summary of progress on project for this report:**

P. What was accomplished during this reporting period?

Q. What obstacles, problems, or delays did you encounter, if any?

R. How was each problem resolved?

**Next Steps:** What is/are the next step(s) to be accomplished over the next reporting period?

## 6.) KEANSBURG:

ELEVEN TINDALL ROAD, MIDDLETOWN, NJ 07748-2792  
(732) 671-6400 \* fax (732) 671-7365 \* www.tandmassociates.com



**Borough of Keansburg**  
**Monmouth County**  
**Project Narrative – FEMA Storm Damage Funding Request**  
**Project No. 4 – Creek Road/Seeley Avenue Bulkhead Repair**  
**Dated August 3, 2010 (KNBG-00770)**

The existing failed timber bulkhead was constructed many years ago and recently suffered severe damage during the storms of March 12, 2010 and April 15, 2010. This bulkhead directly supports the adjacent municipal paved roads (Creek Road and Seeley Avenue), public utility mains located within the roadways, the adjacent Monmouth County bridge (County Structure R-11) and shore line stabilization along Waackaack Creek (State open waters, navigable waterway).

In its damaged condition, the bulkhead is an immediate threat to the health and welfare of Borough residents, public roadways, public utilities and a navigable waterway.

As the owner of the bulkhead, the Borough is requesting FEMA Storm Damage Restoration funding to replace the timber bulkhead in-kind in accordance with a Monmouth County Memorandum (2 pages with attachments A-1 through A-20) dated June 8, 2010 (copy attached), from Mr. Timothy R. Ryan, Principal Engineer, of the Monmouth County Department of Public Works, to Mr. James Cerreta, Senior Management Assistant, regarding "Failed Bulkhead Adjacent to Structure R-11, Creek Road at Waackaack Creek, Township of Hazlet and Borough of Keansburg".

The FEMA Storm Damage **Restoration funding** amount requested for the in-kind timber bulkhead replacement includes the following:

A.	Engineer's Estimate – 150 LF Timber Bulkhead Replacement (in-kind) (See County Memorandum attachment A-19)	
	Timber Bulkhead Subtotal:	\$208,525.00
B.	Engineer's Estimate – 150 LF Roadway Repairs Along Bulkhead	
	Reconstruct Concrete Curb: 150 LF x \$24/LF =	\$ 3,600.00
	Reconstruct Roadway Pavement (150' L x 8' W): 1,200 SF x \$12/SF =	\$ 14,400.00
	Roadway Subtotal:	\$ 18,000.00
	<b>In-Kind Timber Bulkhead Total Estimated Construction Costs =</b>	<b>\$226,525.00</b>

In addition, FEMA Storm Damage **Mitigation Funding** is also respectfully requested to construct 300 LF of new steel sheet-piling bulkhead with a steel cap rather than construct a new timber bulkhead. The FEMA Mitigation Funding amount requested for a new steel sheet-piling bulkhead (in lieu of timber) includes the following:

A.	Engineer's Estimate – 300 LF Steel Sheet-Piling Bulkhead (See County Memorandum attachment A-20)	
	Steel Bulkhead Subtotal =	\$377,675.00
B.	Engineer's Estimate – 300 LF Roadway Repairs Along Bulkhead	
	Reconstruct Concrete Curb: 300 LF x \$24/LF =	\$ 7,200.00

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ENGINEERS \* PLANNERS \* LANDSCAPE ARCHITECTS \* ENVIRONMENTAL SCIENTISTS \* SURVEYORS  
CIVIL \* ELECTRICAL \* ENVIRONMENTAL \* MECHANICAL \* MUNICIPAL \* SITE \* SOLID WASTE \* STRUCTURAL \* TRAFFIC \* TRANSPORTATION

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REGIONAL OFFICES in MOORESTOWN, TOMS RIVER and CLIFTON, NJ; and PLYMOUTH MEETING, PA



KNBG-00770  
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Borough of Keansburg  
Monmouth County  
Project Narrative – FEMA Storm Damage Funding Request  
Project No. 4 – Creek Road/Seeley Avenue Bulkhead Repair  
Dated August 3, 2010 (KNBG-00770)

Reconstruct Roadway Pavement (300' L x 8' W): 2,400 SF x \$12/SF =	<u>\$ 28,800.00</u>
Roadway Subtotal =	<u>\$ 36,000.00</u>

<b>New Steel Bulkhead Total Estimated Construction Costs =</b>	<b>\$413,675.00</b>
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## **7.) UNION BEACH:**



**Borough of Union Beach  
Monmouth County  
Project Narrative  
Shore Front Walkway Repair  
FEMA-DR-1897-NJ  
April 6, 2010 (UBCH-G1001)**

During the storms between March 12, 2010 and April 15, 2010, the Borough of Union Beach's Shorefront Walkway suffered severe damage. In its damaged condition, the walkway is an immediate threat to the health and welfare of Borough residents, public roadways, public utilities and a navigable waterway, in that it prevents water from entering the existing drains resulting in flooding of the area.

The Borough is requesting FEMA Storm Damage Restoration funding to repair the existing shorefront walkway in kind. As part of this project, the Borough proposed to mill and hand remove approximately 3,000 linear feet of the existing 10 foot wide bituminous walkway material. The Borough will expose the landward side of the existing bulkhead sheeting for a depth of 6 feet. The existing filter fabric will be removed and replaced to prevent erosion under the existing walkway. The excavated area will be backfilled in lifts to bring the area to the sub-base grade. A minimum 6 inch thick layer of dense graded aggregated will be installed, if and where directed. Finally, a new hot mix asphalt base course and hot mix asphalt surface course will be installed by hand, particularly in and around the bulkhead and the drainage structures and the adjacent area will be restored to its pre-construction condition.

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8.) **Monmouth County:** Monmouth County Regional Shelter Project

Monmouth County OEM currently has a PDM (Pre-Disaster Mitigation) application submitted requesting funds to strengthen, harden and retrofit an existing school building, Holmdel High School and Satz Middle School Complex, to serve as a multiple use, regionally located, general population, domestic pets and special/medical needs public community shelter as a secondary purpose. This project is fully supported and has been designed in cooperation with the American Red Cross, Jersey Coast Chapter who is the lead Mass Care entity within Monmouth County. The project is further supported by Holmdel Township, Holmdel Township Board of Education and the Bayshore Emergency Management Alliance. The shelter will primarily serve the Bayshore area of the county which includes 9 individual towns and a population base of approximately 170,000 year round residents, with an estimated summer population surge of an additional 10% or 17,000 people. This does not include the daily tourist population that also presents an increase to the daily population due to the beach communities and Sandy Hook National Park. This area also includes an estimated special needs population of approximately 40,000 residents. The Special Needs population includes and estimated 7,000 that are considered transportation dependant, thus further justifying the location of the regional shelter and the concept.

The focus of this project is not to actually mitigate the hazard itself, but rather to mitigate the affects of the disaster on the entire population. It is a known fact that we cannot prevent natural disasters from occurring, however we must attempt to lessen the impacts on the affected region and by providing this resource to the residents of Monmouth County, and we will be assisting in this mission.

The application was returned to this office for numerous revisions to the BCA (Benefit Cost Analysis) which are currently being reviewed.

**D. Review of the Action Plan**

At the Annual Evaluation meeting, the Steering Committee reviewed the action plan of each planning partner to attempt to determine the status of each initiative. Of 52 participating jurisdictions, 29 planning partners submitted a progress report for their jurisdiction. Each of these participating jurisdictions attempted some progress in implementing their initiatives, although additional progress was hampered by lack of funds and lack of staff.

## **E. Changes within the Planning area that may impact implementation of the plan**

During the reporting period, there were several significant events that have impacted the planning area. More specifically are the 3 Nor'easters that impacted the County in 2009 and 2010 causing significant beach erosion and damage to docks, bulkheads and other infrastructure in various parts of the county. The results of these events have dramatically increased the urgency of identifying and completing mitigation actions. The technical and regulatory capabilities identified during the plan's development remain consistent throughout the planning area. However, due to the impact of the stated events and the current economic climate facing the county and the municipalities the financial capabilities as stated in the current HMP (Hazard Mitigation Plan), have been reduced drastically, thus increasing the need for the requested funding.

## **F. Recommendations for Changes or Enhancements**

Based on the review of this report by the Steering Committee, the following recommendations will be noted for future updates or revisions to the plan:

- Future plan progress reports will be simplified.
- Monmouth County will apply for an FY11 PDM 9(Pre-Disaster Mitigation) Planning Grant in order to update the plan within the 5 year timeframe.
- Address climate change and its affects on Monmouth County and mitigation efforts.
- Pay particular attention to areas that have been impacted by recent storms in order to determine changes in the vulnerabilities that were addressed in the original HMP (Hazard Mitigation Plan).

***Public review notice:*** *The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. A copy of this report has been posted on the Monmouth County Multi-Jurisdictional Multi-Hazard Mitigation Plan website. Any questions or comments regarding the contents of this report should be directed to:*

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