

**APPENDIX E –  
PARTICIPATING JURISDICTIONS IMPLEMENTATION STRATEGY SHEETS**



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Monmouth County

| Priority | Mitigation Action                                | What hazards does the action address?      | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| HIGH     | Project # 1 – Storage of Critical Equipment      | Flooding, Storms, Nor'easter & Storm Surge | Existing  | Dept. of Public Works & Engineering & Building & Grounds  | Capital Improvement Program   | 2009-2010                               | 1.5 Million                               | PDMP, FMAP, County Budget                               |
| MED      | Project # 2A – Hydrological and Drainage Studies | Flooding, Storm Surges                     | Existing  | Various County & Municipal Agencies   | State Permits, Property Easements & Stormwater Mgmt Plan                                    | 2009 – 2010                             | \$500,000                                 | PDMP, FMAP & County Budget                              |
| LOW      | Project # 2B – Sediment Management Site          | Flooding, and Storm Surge                  | Existing  | Various State, County & Municipal Agencies  | State Permits & Property Acquisition  | 2012 – 2013                             | 6.5 Million                               | PDMP, FMAP, State, County & Municipal Funds             |

Please attach additional pages as needed.



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Monmouth County

| Priority | Mitigation Action                 | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|-----------------------------------|---|---|---|---|---|---|---|
| MED      | Project # 3 – Utility Protection  | Flooding, Hurricanes, Nor'easter, High Wind & Fire            | Existing  | County OEM, Utility Companies   | State permits, OEM Planning   | 2010                                    | 2.5 Million                               | PDMP, FMAP, Utilities & County Budget                   |
| MED      | Project # 4 – Purchase Properties | Floods, Nor'easter & Hurricanes                               | Existing  | County Parks, other County Agencies & Non profit conservation agencies  | Open Space Plan   | 2009 – 2013                             | 15 Million                                | PDMP, FMAP, State, County, Municipalities & Non Profit  |
| MED      | Project # 5 – Roads and Bridges   | Floods, Storm Surge, Dam Failure, Wind Nor'easter & Hurricane | Existing  | County Dept. of Public Works & Engineering, & Municipal agencies  | Capital Improvement Program, State Permits, OEM Planning                                    | 2009 – 2013                             | 17.7 Million                              | PDMP, FMAP, State, County                               |

Please attach additional pages as needed.



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Monmouth County

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|----------|---------------------------------|---|---|---|---|---|---|---|
| HIGH     | Project # 6 – Shelter Hardening | Floods, Wind, Winter Storms, Tornado, Nor'easter, Hurricanes & Excessive Heat | Both  | County Health Department & County OEM   | Special Needs Plan, Shelter Plan  | 2011                                    | 2 Million                                 | PDMP, FMAP, EMPG, & HLS                                 |
|          |                                 |   |   |   |   |   |   |   |
|          |                                 |   |   |   |   |   |   |   |

Please attach additional pages as needed.



## MONMOUTH COUNTY PROJECTS FOR PRE-DISASTER MITIGATION PLAN

### 1. RETROFIT EXISTING FACILITIES FOR STORAGE OF CRITICAL EQUIPMENT PRESENTLY HOUSED AT FLOOD-PRONE HIGHWAY DISTRICT GARAGES

Highway districts #1 (Belford) and #8 (Hazlet)

Monmouth County stores equipment at regional Highway District Garages. There are flooding problems at County Highway District #1, in the Belford section of Middletown and at County Highway District #8, in Hazlet. Critical equipment necessary to prepare for, respond to and recover from natural disasters would be moved to other Highway District Garages or other County facilities. These other existing facilities need to be retrofitted and expanded to provide adequate storage.

### 2. REGIONAL STORMWATER MANAGEMENT (Phase 1 $\mu$ Hydrological and Drainage Studies ----- Phase 2 $\mu$ Acquisition/Construction of Sediment Management Site)

2A. Phase 1: Identify and Prioritize critical stream segments and receiving water bodies most often flooded, Develop and Secure Permits to clean, dredge, widen and otherwise improve water flow to reduce flooding impacts and flooded areas.

2B. Phase 2: Acquire Properties for Regional Dredge Management Site(s), Design and Secure Permits to construct appropriate facilities for acceptance, storage and reuse of the materials removed from impacted streams and lakes. Construct Facilities.

### 3. PROTECTIVE MEASURES FOR UTILITY RIGHTS-OF-WAY

Upgrade existing power line, natural gas, water supply and sewer easements served by unimproved dirt roads or trails to assure ready access by emergency response and repair vehicles, in cooperation with local utilities. (Many Utility ROW have become impassable without 4WD vehicles and on-the-spot cut and fill; and severely impede timely storm preparation or repairs.)

### 4. PURCHASE OF FLOOD-PRONE PROPERTIES

Acquisition and deed restriction of properties Monmouth County and locally active conservation organizations have identified for preservation which are located in flood-prone areas.

### 5. UPGRADE CRITICAL COUNTY ROADS AND BRIDGES IMPACTED BY FLOODING

Under this project, Monmouth County will investigate and prioritize roadways and bridges with history of flooding with negative implications to public safety with respect to the drivers and/or nearby residents' mobility. Once they have been prioritized, County will then develop a schedule to proceed with the design of improvements to the specific critical County facility to safeguard the infrastructure as well as the general public utilizing the said critical County facility.

- An example of a critical Monmouth County facility upgrade which may fall under this project is the Monmouth County Route 7, Palmer Avenue, on the Holmdel-Middletown

border, just north of State Route 35. The roadway, which has a history of frequently flooding, is a two lane arterial which serves as a direct link between SR35, CR516 and SR36 to the north. Residents on a local residential street, Billingsgate Drive, are essentially trapped when Palmer Avenue floods since the only access to the neighborhood is via Palmer Avenue. Specifically, the roadway floods in two areas:

- o South of Billingsgate Drive which floods for a length of several hundred feet. The low point of the roadway is at the headwaters of a tributary branch of the Waackaack Creek.
- o North of Billingsgate Drive in the vicinity of a Monmouth County bridge (H-5) where CR7, Palmer Avenue, crosses a tributary of the Waackaack Creek. While this area floods less frequently than the first area, it is of concern.

Potential means to address the flooding in the first area is de-silting & de-snagging the tributary branch and/or raising the roadway to be above the common flood elevation. Correcting the flooding at the second area will require investigation of alternatives and their impacts to the surrounding area. With funding, alternatives will be investigated, moved to final design, and construction of remedial repairs and reconstruction Palmer Avenue and the bridge may be performed.

- Another example of critical facilities that may fall under this project is the bridges and roadways that are associated with high hazard potential (Class I) dams in the County. By NJDEP Dam Safety Standards, high hazard potential dams are those dams, the failure of which may cause the probable loss of life or extensive property damage.

While we understand that the primary dam structure, i.e. the spillway system, is not a fundable project, the bridge and roadway, which are linked to the dam due to the spillway system being just upstream of the bridge and associated roadway, are eligible. It is imperative that when a high hazard dam is rehabilitated to safely discharge the State required rainfall event between the 100-year storm event and the Probable Maximum Precipitation event, the bridge and roadway will also have to be upgraded or the safety problem is just being transferred to the adjoining bridge and roadway. The safety problem may be from the bridges and roadways flooding due to inadequate capacity to safely pass the flow being discharged through the spillway and/or the structural integrity of the bridge and roadways being compromised by the spillway discharge.

This is a major issue for the County as generally speaking, Monmouth County does not own the primary dam structure but owns the adjoining properties in the form of a bridge and roadway. There are currently four (4) high hazard potential dams of which three (3) require major rehabilitation to maintain its integrity for public safety. They are:

- o Monmouth County Bridge U-12 and County Route 539, Main Street, are connected to the spillway system of Allentown Dam. The County has recently completed the design for rehabilitation of the dam, bridge, and roadway by partnering with the local owner, the municipality. County is currently proceeding to advertisement, award, and the construction of the necessary rehabilitation work to maintain the

integrity of the dam. The associated bridge is being reconstructed and the associated roadway is being upgraded to ensure safe passage of the necessary spillway discharge as per NJDEP Dam Safety Standards.

- o Monmouth County Bridge MN-10 and County Route 527, Sweetman Lane, are connected to the spillway system of Millhurst Mill Dam. The bridge and roadway will need to be upgraded when the dam is rehabilitated to be in compliance with the NJ Dam Safety Standards to ensure public safety.
- o Monmouth County Bridge U-18 and County Route 526, Church Street, are connected to the spillway system of Indian Lake Dam. The bridge and roadway will need to be upgraded when the dam is rehabilitated to be in compliance with the NJ Dam Safety Standards to ensure public safety.
- Other examples of critical facilities are bridges susceptible to scour as a result of nor'easters or hurricanes. In particular, Monmouth County Bridge W-43 carries a coastal roadway immediately adjacent to the Atlantic Ocean. The substructures are exposed to direct tidal and storm flow. The substructures can be easily undermined by significant natural events (and have been in the past):
  - o The bridge currently has suffered from scour conditions because a seawall was breached by a barge collision thereby exposing the south abutment to scour. A major storm event could compromise the structure.
  - o The rip rap seawall immediately west of the bridge has suffered the same fate and further undermining could affect adjacent residential properties.

Monmouth County owns and operates three (3) other coastal bridges that are also susceptible to wave, tidal and storm surge damage. Each of these would require a form of armoring to limit damage.

## 6. SPECIAL NEEDS SHELTER HARDENING

Retrofit, harden and make structural improvements to the four (4) regionally designated Special Needs Population Evacuation Shelters that are located outside of flood prone and other high hazard areas and are considered critical infrastructure.

Based on the list of approved American Red Cross Shelters, four (4) regional critical infrastructure sites will be identified as Regional hub (supply distribution) and Special Needs Shelters. The hardening of these shelters would include making them resistive to high winds and flooding from Nor'easters and hurricanes. It would also harden them against the adverse conditions of tornados, winter storms, and utility outages protecting against extreme temperature differences. The project will include fire resistive construction products that will aid in protection from wildfires and lightning strikes. None of these critical infrastructure sites are located in such an area that is susceptible to storm surge, wave action, coastal erosion or dam failure. These sites are located in the municipalities of Neptune, Holmdel, Tinton Falls and Colts Neck.



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Aberdeen Township \_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address?                   | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.  | What is the target date for completion? | How much is the action estimated to cost?             | What funding source(s) will be used to fund the action?  |
|----------|---|---|---|---|--|---|---|--|
| High     | Create a mitigation outreach program that helps residents prepare for disasters.  | All   | Both  | Office of Emergency Management  | Local Emergency Planning Committee   | 2009                                    | Minimal cost. Use existing resources.                 | Municipal operating budget   |
| Medium   | Develop specific mitigation solutions for flood-prone roadways, specifically State Highway 35 at Long Neck Creek, Lakeshore Drive and Greenwood Ave., and Amboy Ave., under the leadership of NJDOT. Develop a work plan for when sites will be surveyed and what role can the local government play in selection and implementation of mitigation activities (e.g. any monetary or contextual support through the local capital improvement plan). | Flooding caused by floods, hurricanes, and nor'easters. | Existing  | Township Manager, Township Engineer, NJDOT, Monmouth County Highway Dept.                                     | Coordination with municipal, county, and state agencies. Plans for improvements to Highway 35 have been in development for many years. | Unknown                                 | Unknown, although probably significant capital costs. | Combination of local, state, and county capital improvement budgets, plus grants if available. |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) ALLENHURST BOROUGH NJ0130100

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| HIGH     | Action 2B Mitigation Outreach   | ALL                                   | BOTH  | OEM   | Borough Administration  | 12/31/09                                | \$850.00                                  | Borough   |
| HIGH     | Action 11A Purchase NOAA Weather Radios for critical facilities.      | ALL                                   | NEW   | POLICE  | OEM   | 7/15/09                                 | \$250.00                                  | Borough   |
| MEDIUM   | Action 11B Educate residents about Winter driving and Winter hazards. | Winter Storm Related Hazards          | New   | OEM & POLICE  | POLICE  | 11/15/09                                | \$200.00                                  | Borough   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Allentown Borough

| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|--|---|---|---|---|---|
| 1        | Educate residents about what to do before, during and after a flood.   | Flooding                              | Both   | O.E.M.<br>&<br>Deputy O.E.M.  | With Allentown Borough Mayor and Council Approval.  | 7-08                                    | Minimal                                   | Municipal Funding                                       |
| 2        | Develop an inventory of addresses that could be affected by a wild fire. Use inventory and develop a route alerting system.  | Wildfires                             | Existing   | O.E.M.<br>&<br>Deputy O.E.M.  | With Allentown Borough Mayor and Council Approval.  | 9-08                                    | Minimal                                   | Municipal Funding                                       |
| 3        | Reconstruct an existing dam that runs below County Route 539. Dam failure cause major private and public property damage. This would also greatly affect & damage municipal sewer plant. | Dam Failures                          | Both   | O.E.M.<br>&<br>Deputy O.E.M.  | Local Planning & Zoning Board with Mayor & Council Approval.                                | Unknown                                 | High                                      | Municipal & County Funding                              |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) City of Asbury Park\_\_\_\_\_

| Priority | Mitigation Action                       | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| Medium   | Repair Damages Storm Drains             | Flooding                              | Both  | City Engineer   | City Engineer/Engineering   | 2010                                    | \$500,000                                 | Unknown   |
| High     | Replace Bulkhead and Dredge Sunset Lake | Flooding                              | Existing  | City Engineer   | City Engineer/Engineering   | 2010                                    | \$1,200,000                               | Unknown   |
| High     | Replace Bulkhead and Dredge Wesley Lake | Flooding                              | Existing  | City Engineer   | City Engineer/Engineering   | 2010                                    | \$200,000,000                             | Unknown   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Atlantic Highlands \_\_\_\_\_

| Priority  | Mitigation Action                                    | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|-----------|--|---------------------------------------|---|---|---|---|---|---|
| #1 High   | Project #1<br>Hillside Road μ Phase II               | Flooding/Erosion                      | Both  | Mayor & Council   | Boro Administrator & Engineer, OEM Shelter Plan & Evacuation                                | 2010/2011                               | \$500,000<br>+/-<br>High                  | Budget/Grant<br>PDMP<br>FMAP                            |
| #2 Medium | Project #2<br>Fireman's Field                        | Flooding                              | Existing  | Mayor & Council,<br>Atlantic Highlands<br>Fire Department   | Boro Administrator & Engineer,<br>Fire Department representative                            | 2011/2012                               | \$1.5m<br>High                            | Boro & Fire<br>Dept Budget<br>& Grants<br>PDMP<br>FMAP  |
| #3 Medium | Project #3<br>Bayside Drive Erosion<br>Stabilization | Erosion                               | Both  | Mayor & Council   | Boro Administrator & Engineer,<br>OEM Shelter Plan & Evacuation                             | 2012/2013                               | \$1.5m<br>High                            | Budget/Grants<br>PDMP<br>FMAP                           |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

Avon By The Sea \_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost?       | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| Medium   | Continue outreach efforts to residents & businesses through the quarterly Boro newsletter and Borough website   | Flooding<br>Windstorm<br>Winter Storms | BOTH  | OEM Coordinator   | Borough Newsletter which is distributed Quarterly   | Summer 2008 and Ongoing                 | Free μ newsletter already printed regularly     | Existing Funds  |
| Medium   | Establish a resource library at the Boro Library to include printed materials as well as electronic data from the internet related to natural disasters                                   | Flooding<br>Windstorm<br>Winter Storms | Both  | Librarian<br>OEM Coordinator  | Library Staff will develop based on guidance from OEM                                       | Summer 2008                             | Collection of Data - Free                       | Funds from the Library Board of Trustees                |
| High     | Evaluate vulnerabilities of existing emergency facilities including the Municipal Building (PD & FD HQ) EMS HQ and Water Treatment Plant. Develop action plan for deficiencies identified | Flooding<br>Windstorm<br>Winter Storms | Both  | OEM Coordinator<br>Construction Department  | OEM will work with code office for evaluations  | Spring 2009                             | Assessment Free μ corrective actions \$10,000 + | Assessment from Municipal Staff culture action TBD      |

*Please attach additional pages as needed.*



| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names)          | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action?            |
|----------|--|---------------------------------------|---|--|---|---|---|--|
| Low      | Expand upon the lake management efforts for the Sylvan lake to reduce damage from flooding. Include additional wall replacement and dredging activities to remove silt from streams feeding the lake | Flooding                              | Existing  | Sylvan Lake Commission a joint agency of the Borough of Avon By The Sea & Bradley Beach wher Lake serves as the border | Sylvan Lake Commission with plans developed through grant funds from the NJ DEP             | Fall 2009 - 2010                        | \$250,000 + as area of dredging expands   | Funds from Avon & Bradley Beach as well as DEP Grant obtained 2007 |
|          |  |                                       |   |  |   |   |   |  |
|          |  |                                       |   |  |   |   |   |  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Belmar\_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| Medium   | Continue to implement projects identified in the Capital improvement plan and seek grant funding when possible to offset project costs. | All Hazards                           | Existing and New  | Belmar DPW  | Capital Improvement Fund  | Ongoing                                 | -   | Capital Improvement Fund                                |
| Medium   | Stabilization of Shoreline  | Coastal Erosion                       | Existing  | Belmar DPW  | Capital Improvement Fund  | Ongoing                                 |   | Capital Improvement Fund                                |
| High     | Lake Como Flooding Mitigation Project   | Flooding                              | Existing and New  | Belmar DPW  | Capital Improvement Fund  | 2008-2011                               | \$325K                                    | Capital Improvement Fund                                |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Bradley Beach Borough

| Priority | Mitigation Action   | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---|---|---|---|---|---|---|
| Medium   | Continue to implement measures to mitigate ocean and lake flooding due to hurricanes and large storms. This includes the new installation of outfall pipes and bulk-heading around Fletcher Lake, bulk-heading around Sylvan Lake and continued maintenance of the dunes which run along the entire beachfront. | Flooding due to hurricanes, coastal flooding and large storms | Both  | Mayor, Council, and Fletcher and Sylvan Lake Commissions  | Borough Administrator, Lake Commissions and Public Works Department                         | 2008                                    | High                                      | Budget and grants                                       |
| Medium   | Action 14.A μ Conduct evaluations of emergency facilities to determine the level of protection from flooding and wind damage.   | All   | Both  | Mayor and Council, Office of Emergency Management   | Borough Administrator, Emergency Management Coordinator                                     | 2008                                    | Low                                       | Budget  |
| Medium   | Continue to support and fund the Borough's Community Emergency Response Team  | All   | Both  | Mayor, Emergency Management Coordinator   | Emergency Management Coordinator  | 2008                                    | Medium                                    | Budget  |
| Medium   | Action 14.D μ Continue to implement the best management practices for floodplain areas.   | Flooding  | Both  | Mayor, Council, Borough Administrator, Borough Engineer   | Borough Engineer  | 2008                                    | Medium                                    | Budget  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Borough of Brielle

| Priority | Mitigation Action   | What hazards does the action address?   | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---|---|---|---|---|---|---|
| High     | Reinforce the First Aid Building to be used as an emergency shelter | Hurricanes, Loss of Power, Winter Storms, Nor-Easter's, Heat Wave, Flooding, Storm Surge. | New   | Brielle O.E.M.<br>Mayor and Council   | Brielle O.E.M.  | 2009                                    | \$15,000.00                               | P.P.M.P.<br>F.M.A.P.<br>Municipal Budget                |
| Medium   | Bulkhead restoration on Ocean Ave                                   | Flooding, Storm Surge, Hurricanes, Nor-Easter   | Existing  | Brielle O.E.M.<br>Mayor and Council   | Borough Engineer  | 2011-2012                               | \$75,000.00                               | P.P.M.P.<br>F.M.A.P.<br>Municipal Budget                |
|          |   |   |   |   |   |   |   |   |

Please attach additional pages as needed.

OCEAN AVENUE BULKHEAD MITIGATION:

The Ocean Avenue Bulkhead is deteriorating due to age and the pressure of the tides. At present the Borough is maintaining the bulkhead by adding stone on the landward side, but as the tide ebbs and flows the stones are being gradually displaced.

Unless the outer bulkhead is replaced, the end of the roadway will eventually collapse. This will undermine the adjacent properties and can cause flooding in particular during a period of high tide. Any storm that creates a tidal surge would then pose a severe threat to the area and further undermine Ocean Avenue.

## SPECIAL NEEDS FOR SHELTER RESTRUCTURING

Retrofit and make improvements to a dedicated Emergency Shelter located outside of the flood prone areas. The improvements would make the shelter resistive to loss of power during Hurricanes, Nor-easters and other high wind storms. It would also harden the structure against utility outages due to extreme temperature differences.



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction)

### Colts Neck Township

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| Medium   | Action 2A μ Expand and disseminate GIS and other hazard information on the internet.                      | All                                   | Both  | Township Administration   | Township OEM and Web-Site Coordinator   | 2009                                    | Low (administrative)                      | Budget  |
| Medium   | Action 2B μ Create mitigation outreach program that helps residents and businesses prepare for disasters. | All                                   | Both  | Township Administration   | Township OEM in coordination with other local emergency services.                           | 2010                                    | Low (administrative)                      | Grants, Budget  |
| Medium   | Action 11B μ Educate residents about driving in winter storms and handling winter related health effects. | Winter Storms and Nor'easters         | Both  | Township Administration   | Township Police in coordination with other local emergency services.                        | 2009                                    | Low (administrative)                      | Grants, Budget  |
| Medium   | Action 11C μ Promote ice and windstorm resistant trees and trimming to reduce tree related hazards.       | Winter Storms and Nor'easters         | Both  | Township Administration   | Township OEM in coordination with local Shade Tree Committee.                               | 2008                                    | Low (administrative)                      | Grants, Budget  |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Borough of Deal

**This form should ONLY be completed AFTER your jurisdiction has considered the full range of possible mitigation actions set forth in the Risk Assessment Interim Deliverable (completed in February 2008), selected a subset of the actions that your jurisdiction would like to implement, and prioritized those actions using the Prioritization of Actions worksheet. This worksheet is intended to document how you will implement your selected actions and is REQUIRED for each municipality participating in the planning process. You should complete this worksheet AFTER the Prioritization of Actions worksheet. This worksheet must be received by URS no later than April 30, 2008 in order to be included in the Plan (send to: Anna Foley, URS, 201 Willowbrook Blvd., 3<sup>rd</sup> Floor, Wayne, NJ 07470-7005. Phone: 973-785-0700 ext. 339. Fax: 973-812-0985. Email: [anna\\_foley@urscorp.com](mailto:anna_foley@urscorp.com)). A Working Session of the Core Planning Group will be held in April 2008 where the URS Team will walk you through completion of this form and will be available to answer questions.**

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | Set up detention Pond and berm system to prevent future flooding for Popular Brook between Norwood Ave and Ocean Ave | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami | Both  | Business Admin, DPW, OEM, Boro Engineer, Army Corp, State DEP   | To be included in Storm water Management Plan and flood plain ordinance                     | 2009-2010                               | 6 million dollars                         | Federal, Green Acres (State), County, Municipal         |
| High     | Widen coverts under roadways in three different streets for Popular Brook (Norwood Ave, Alymar Ave, Ocean Ave)       | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami | Both  | Business Admin, DPW, OEM, Boro Engineer, Army Corp, State DEP, County Bridge Dept, State DOT                  | To be included in Storm water Management Plan and flood plain ordinance                     | 2009-2010                               | 5 million dollars                         | Federal, Green Acres (State), County, Municipal         |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **Borough of Eatontown**

| Priority                      | Mitigation Action  | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action?        |
|-------------------------------|--|---|--|---|---|---|---|--|
| <b>Priority 1-<br/>High-</b>  | Dredge Husky brook that run through town. Fix Lewis Street Public Works yard from flooding | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | Existing-PW Yard; DPW<br>All bridges that cross over Husky Brook                             | Mayor/Council;<br>Boro Engineer   | Mayor and Council/Committee or Commission   | 2010                                    | 500K                                      | Capital Improvement;<br>State Grants                           |
| <b>Priority 2-<br/>Medium</b> | Add Generators to shelters for emergency power and telecommunications                      | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | Existing Boro Hall, Fire Station and DPW<br>All Board of Education Schools                   | Mayor/Council<br>Board of Education<br>Boro Engineer  | Mayor and Council/Board of Education  | 2010                                    | 500-700K                                  | Capital Improvement;<br>State Grants;<br>Federal Grants/Progs. |
| <b>Priority 3<br/>Medium</b>  | Purchase NOAA Radios and educate residents about storms                                    | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | none   | OEM Coordinator   | OEM Coordinator   | 2009                                    | 5-10K                                     | Budget and/or Capital Improvements                             |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) ENGLISHTOWN

| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br><i>(indicate: Existing, New, or Both)</i> | Who is responsible for implementing the action? <i>(List Title, Department, or Office – please do not use names)</i> | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|--|--|---|---|---|---|
| High     | Conduct Routine Stream Maintenance Program and seek financial assistance to clean out stream segments with heavy sediment deposits, Weamaconk Creek and McGellairds Brook | Flooding, Heavy Rain Events, Nor'easters and Hurricanes, Spring Thaw (Snow Melt) | Existing Streams   | Mayor Council  | Storm Water Management Plan, Master Plan  | 2010 - 2011                             | Medium                                    | Local Budget, Available Grants                          |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) BOROUGH OF FAIR HAVEN

| Priority | Mitigation Action  | What hazards does the action address?                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|---|---|---|---|
| 1        | PLACE POWER TRANSMISSION LINES UNDER GROUND                                  | DOWNED POWER LINES DURING WIND OR ICE STORMS          | PREVENT LOSS OF POWER AND THE HAZARDS OF DOWNED HIGH VOLTAGE POWER LINES                    | JCP&L   | BOROUGH ORDINANCE COULD MANDATE ALL POWER LINES BE PLACED UNDERGROUND                       | 10 YEARS                                | \$5,000,000 +                             | GRANTS  |
| 2        | REPLACE OLDER DAMAGED UTILITY POLES WITH NEWER UP TO DATE POLES              | DOWNED POWER LINES DURING WIND OR ICE STORMS          | PREVENT LOSS OF POWER AND THE HAZARDS OF DOWNED HIGH VOLTAGE POWER LINES                    | VERIZON   | BOROUGH ORDINANCE COULD MANDATE REPLACEMENT OF OLDER UTILITY POLES                          | 10 YEARS                                | UNKNOWN                                   | GRANTS  |
| 3        | REMOVE OR TRIM TREES THAT WOULD HAVE THE POTENTIAL OF FALLING DURING A STORM | THREAT OF INJURY TO THE PUBLIC AND DAMAGE TO PROPERTY | PREVENT LOSS OF POWER AND THE HAZARDS OF DOWNED HIGH VOLTAGE POWER LINES                    | DPW<br>JCP&L  | BOROUGH ORDINANCE COULD MANDATE REMOVAL OF TREES  | 10 YEARS                                | UNKNOWN                                   | GRANTS  |

*Please attach additional pages as needed.*



## FARMINGDALE IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Farmingdale

| Priority | Mitigation Action   | What hazards does the action address?        | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| M        | Harden existing shelters for storm resistance                 | All  | Both  | HTOEM   | EOP Shelter Annex   | 9/08                                    | 120,000                                   | PDMP, FMAP, EMPG & HLS                                  |
| M        | Increase shelter in place capabilities                        | All  | Both  | HTOEM   | EOP Shelter Annex   | 8/08                                    | 60,000                                    | PDMP, FMAP, EMPG, HLS & Local Budget                    |
| L        | Purchase raise or address repetitive flood areas & properties | NorEaster, winter storms, tornado, hurricane | Both  | HTOEM   | Town Master Plan  | 2012                                    | 3,000,000                                 | PDMP, FMAP, EMPG & HLS                                  |

*Please attach additional pages as needed.*



# FARMINGDALE

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| High     | Redundant dispatch & EOC upgrade                          | All                                   | Both  | HTOEM<br>HTPD   | EOP<br>COMM,<br>EOC,<br>ANNEX   | 12/08                                   | 300,000                                   | Local Budget<br>PDMAP<br>FMAP<br>EMPG &<br>HLS          |
| High     | Stand by power for emergency needs                        | All                                   | Both  | HTOEM<br>HTPD<br>HTDPW  | EOP<br>EMERGENCY<br>RESPONSE<br>ANNEX   | 7/08                                    | 60,000                                    | Local Budget<br>PDMAP<br>FMAP<br>EMPG<br>HLS            |
| High     | Back up water purification for shelter and utility outage | All                                   | Both  | HTOEM<br>HEALTH   | EOP<br>SHELTER<br>&<br>PUBLIC<br>HEALTH<br>ANNEX  | 6/08                                    | 35,000                                    | Local Budget<br>PDMAP<br>FMAP<br>EMPG<br>HLS            |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) FREEHOLD BOROUGH

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|--|---|---|---|---|---|
| High     | Planning & funding to Update Communications & back-up power systems in The EOC                  | All                                   | Both   | Mayor, Council & Business Administrator   | Business Administrator, CFO   | 2010                                    | \$50,000.00                               | Bond Ordinances Budgetary item                          |
| High     | Emergency generators installed in our grammar schools that are designated as Evacuation centers | All                                   | Both   | Mayor & Council<br>Local school board   | Mayor & Council   | 2012                                    | \$150,000.00                              | Bonds & budget items                                    |
| Low      | Create an outreach program to help residents plan for disasters                                 | All                                   | Both   | OEM, Mayor & Council  | OEM   | 2010                                    | \$5000.00                                 | Budget items  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **FREEHOLD TOWNSHIP**

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | <b>Action 4-F:</b><br>Conduct routine stream maintenance program to identify areas prone to flooding and seek financial assistance to clean out problem segments.  | Flooding<br>Heavy Rain Event   | Existing  | OEM<br>Public Works<br>County, State and Federal agencies   | Storm Water Management Plan; Mon. Cnty. Mosq. Comm. Regulations; Public Works Initiatives   | 2012                                    | Low                                       | Grants, Local Match, County Budget                      |
| High     | <b>Action 2-B:</b><br>Create mitigation and preparedness outreach program by providing information that helps residents and property owners prepare for disasters. | Drought, heavy rain and wind events, earthquakes, lightning strikes, dam failures, wildfires, winter storms, tornadoes, extreme temperatures | Both  | OEM   | Emergency Operations Plan; Pre-Disaster Mitigation Plan                                     | 2008 & Ongoing                          | Low                                       | Local and Available Grants                              |
| High     | <b>Action 11-B:</b><br>Educate public about driving in winter storms and preparing for winter-related health hazards.  | Winter Storms  | Both  | OEM   | Emergency Operations Plan; Pre-Disaster Mitigation Plan                                     | 2009 & Ongoing                          | Low                                       | Local and Available Grants                              |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) HAZLET TOWNSHIP

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action?<br>(List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|--|---|---|---|---|
| High     | 10.A Develop a mapping of wildland/urban interface areas with assistance of the NJFFS.                            | Wildland Fires                        | Existing  | OEM and Fire Chiefs  | Board of Fire Chiefs  | 2008                                    | Minimal, grant from NJFS                  | New Jersey Forestry Service.                            |
| High     | 10.B Put together a list of addresses for route alerting during wildfire emergencies that require public warning. | Wildland Fires                        | Existing.   | OEM  | OEM   | 2008                                    | Negligible                                | None  |
| Medium   | 10.I Mitigation for Streets, Highways and roads that provide key fire access and fuelbreaks.                      | Wildland Fires                        | Both  | Hazlet Public Works  | Hazlet Public Works   | 2010                                    | ?   | Unknown at this time.                                   |
| Medium   | 10.J With assistance of NJFFS, widen all paths in the wildland area for better access.                            | Wildland Fires                        | Both  | OEM. NJFFS   |   | 06/01/09                                | ?   | New Jersey Forestry Service.                            |

*Please attach additional pages as needed.*



**- 1 Highlands**

**Page 1      6/9/2008  
IMPLEMENTATION STRATEGY**

(Name of Jurisdiction) Highlands Draft\_\_\_\_\_

| <b>Priority</b> | <b>Mitigation Action</b>  | <b>What hazards does the action address?</b>  | <b>What community assets will be impacted by the action?<br/>(indicate: Existing, New, or Both)</b> | <b>Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names)</b> | <b>Identify an existing local planning mechanism through which the action will be implemented.</b> | <b>What is the target date for completion?</b> | <b>How much is the action estimated to cost?</b>  | <b>What funding source(s) will be used to fund the action?</b> |
|-----------------|---|---|---|--|--|--|---|--|
| High            | Action (1.E) Update Highlands Flood Mitigation Plan 1999. Use existing flood damage prevention ordinance 0-98-12, flood ID survey results, surface flooding drainage study, and repetitive loss survey results. Include damage surveys and repair cost estimates  | Flooding  | Both  | Mayor and Council  | Boro Engineering Planning Board Code Enforcement Emergency Management                              | 2008   | \$25,000  | Grant/ Local Budget  |
| High            | Action (4.E) Use flood ID Survey results in Highlands Mitigation plan to mitigate damage and losses due to flooding. Specifically undersized drainage pipes pumping stations and bulkheads. Storm water runoff from hill sections, tidal conditions and coastal flooding create severe flooding conditions. | Flooding Due to Storm water run off, tidal flooding, and Coastal Floods, Hurricanes and Nor'easters | Both  | Mayor and Council  | Boro Engineering Planning Board Code Enforcement Emergency Management State and Federal            | 2011   | Planning and Engineering \$500k<br><br>Pumps \$1.5m<br><br>Storm Drain replacement and repair \$21M | Federal State Grants Local Match                               |

*Please attach additional pages as needed.*



**- 2 Highlands**

**Page 2**

**6/9/2008**

| <b>Priority</b> | <b>Mitigation Action</b>  | <b>What hazards does the action address?</b>                          | <b>What community assets will be impacted by the action?<br/>(indicate: Existing, New, or Both)</b> | <b>Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names)</b> | <b>Identify an existing local planning mechanism through which the action will be implemented.</b> | <b>What is the target date for completion?</b> | <b>How much is the action estimated to cost?</b>                      | <b>What funding source(s) will be used to fund the action?</b> |
|-----------------|---|---|---|--|--|--|---|--|
| High            | Action (7.B) Reduce the possibility of damage and losses due to coastal erosion and wave action.  | Flooding Due to Inland and Coastal Floods, Hurricanes and Nor'easters | Both  | Mayor and Council  | Boro Engineering Planning Board Code Enforcement Emergency Management State and Federal            | 2012   | Planning and Engineering \$100 k<br><br>Bulkhead Warve repairs \$750k | Federal State Grants Local Match                               |
| High            | Action (9.D) Reduce the possibility of damage and losses due to landslides. Highlands has specific areas identified (9.A) prone to landslides. Damage as a result of a landslide currently has Bayside Drive closed | Landslides due to Steep Slopes and Slump Blocks                       | Both  | Mayor and Council  | Boro Engineering Planning Board Code Enforcement Emergency Management State and Federal            | 2010   | Planning and Engineering \$350 k<br><br>\$3M                          | Federal State Grants Local Match                               |
| Medium          | Action 2C Planning for and Funding Improvements to Telecomm and Electrical Systems at Critical Facilities including Facilities used For EOC and as local shelters   | All types of manmade and natural disasters                            | Both  | Mayor and Council  | Boro Administrator Emergency Management School BOE   | 2009   | \$100k est for Emergency Power and Telecomm upgrades                  | Grants Local Budget  |

*Please attach additional pages as needed.*



| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|---|---|---|---|---|---|
| Medium   | Action (13.E) Install hurricane clips and wind shutters on existing development particularly emergency facilities and shelters built before existing codes were adopted to offer some degree of protection | All critical facilities               | Both  | Mayor and Council   | Boro Administrator<br>Emergency Management<br>School BOEŃ                                   | 2012                                    | Unknown                                   | Grants<br>Local Budget                                  |
| Medium   | Action (14.A) Reduce the possibility of damage to emergency facilities by conducting an evaluation to determine Existing level of protection, particularly to flooding, and implementing recommendations.  | All critical facilities               | Both  | Mayor and Council   | Boro Administrator<br>Emergency Management<br>LEPC Business improvement<br>District         | 2010                                    | Unknown                                   | Grants<br>Local Budget                                  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction)

Holmdel Township

| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| High     | Retrofit Existing Sewer Pump Stations with Hurricane Clips/Straps as needed.                | Reduce possibility of loss of municipal sewer service due to windstorms/hurricanes | Existing  | Township Administrator  | Building Ordinance  | 6/1/2009                                | Low cost μ less that \$20,000             | Municipal   |
| High     | Require mulch on or adjacent to commercial shopping area parking lots to be fire resistant. | Fire and public safety   | Both  | Township Committee  | Municipal Ordinance   | 3/1/2009                                | Low cost                                  | Private   |
|          |   |  |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## HOWELL IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Howell

| Priority | Mitigation Action   | What hazards does the action address?        | What community assets will be impacted by the action?<br><i>(indicate: Existing, New, or Both)</i> | Who is responsible for implementing the action? <i>(List Title, Department, or Office – please do not use names)</i> | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|--|--|---|---|---|---|
| M        | Harden existing shelters for storm resistance                 | All  | Both   | HTOEM  | EOP Shelter Annex   | 9/08                                    | 120,000                                   | PDMP, FMAP, EMPG & HLS                                  |
| M        | Increase shelter in place capabilities                        | All  | Both   | HTOEM  | EOP Shelter Annex   | 8/08                                    | 60,000                                    | PDMP, FMAP, EMPG, HLS & Local Budget                    |
| L        | Purchase raise or address repetitive flood areas & properties | NorEaster, winter storms, tornado, hurricane | Both   | HTOEM  | Town Master Plan  | 2012                                    | 3,000,000                                 | PDMP, FMAP, EMPG & HLS                                  |

*Please attach additional pages as needed.*



# HOWELL

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| High     | Redundant dispatch & EOC upgrade                          | All                                   | Both  | HTOEM<br>HTPD   | EOP<br>COMM,<br>EOC,<br>ANNEX   | 12/08                                   | 300,000                                   | Local Budget<br>PDMap<br>FMAP<br>EMPG &<br>HLS          |
| High     | Stand by power for emergency needs                        | All                                   | Both  | HTOEM<br>HTPD<br>HTDPW  | EOP<br>EMERGENCY<br>RESPONSE<br>ANNEX   | 7/08                                    | 60,000                                    | Local Budget<br>PDMap<br>FMAP<br>EMPG<br>HLS            |
| High     | Back up water purification for shelter and utility outage | All                                   | Both  | HTOEM<br>HEALTH   | EOP<br>SHELTER<br>&<br>PUBLIC<br>HEALTH<br>ANNEX  | 6/08                                    | 35,000                                    | Local Budget<br>PDMap<br>FMAP<br>EMPG<br>HLS            |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Interlaken

**This form should ONLY be completed AFTER your jurisdiction has considered the full range of possible mitigation actions set forth in the Risk Assessment Interim Deliverable (completed in February 2008), selected a subset of the actions that your jurisdiction would like to implement, and prioritized those actions using the Prioritization of Actions worksheet. This worksheet is intended to document how you will implement your selected actions and is REQUIRED for each municipality participating in the planning process. You should complete this worksheet AFTER the Prioritization of Actions worksheet. This worksheet must be received by URS no later than April 30, 2008 in order to be included in the Plan (send to: Anna Foley, URS, 201 Willowbrook Blvd., 3<sup>rd</sup> Floor, Wayne, NJ 07470-7005. Phone: 973-785-0700 ext. 339. Fax: 973-812-0985. Email: [anna\\_foley@urscorp.com](mailto:anna_foley@urscorp.com)). A Working Session of the Core Planning Group will be held in April 2008 where the URS Team will walk you through completion of this form and will be available to answer questions.**

| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|--|---|---|---|---|---|
| High     | Develop mitigation steps to reduce damage and losses due to flooding through control of stormwater runoff and more efficient drainage and discharge to ocean waters | Nor'easters, hurricanes, flooding caused by inland and coastal floods, storm surge | Both   | Mayor and Council, Deal Lake Commission   | Deal Lake Commission Stormwater Management Plan   | 2010                                    | \$300,000.00                              | Grants and local match from surrounding municipalities  |
|          |   |  |  |   |   |   |   |   |
|          |   |  |  |   |   |   |   |   |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Keansburg \_\_\_\_\_

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|--|---|---|---|---|---|
| High     | 1A) Enact hazard zoning ordinances.  | Flooding   | New  | Mayor and Council<br>Zoning Board<br>Planning Board<br>Code Officials   | New zoning code plan  | 2010                                    | Low<br>(administrative)                   | Municipal Funds   |
| High     | 1b) Specifically allow variances on foundations of newly built structures.   | Flooding due to inland and coastal floods, hurricanes, nor easters and storm surges. | New  | Mayor and Council<br>Zoning Board<br>Planning Board<br>Code Officials   | New zoning code plan  | 2010                                    | Low<br>(administrative)                   | Municipal Funds   |
| High     | Develop mitigation steps to reduce damage and losses due to flooding, through the control of water flow and a more efficient damage. | Flooding due to inland and coastal floods, hurricanes, nor easters and storm surges. | Both   | Mayor and Council<br>Borough Manager<br>Water Plant<br>Borough Engineer<br>Public Works                       | Capital Improvement   | 2010-2015                               | High                                      | Municipal Funds<br>Available grants                     |

*Please attach additional pages as needed.*



| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| High     | Create a outreach program to help resident prepare for disasters.                 | Flooding due to inland and coastal floods, hurricanes, nor easters and storm surges. | Both  | Mayor and Council<br>Borough Manager<br>OEM Coordinators  | Emergency<br>Operation Plan<br><br>Capital<br>Improvement                                   | 2010                                    | Medium                                    | Municipal<br>Funds<br><br>FMAP                          |
| High     | Develop a plan and seek funding for back-up electric in critical care facilities. | Flooding due to inland and coastal floods, hurricanes, nor easters and storm surges. | Both  | Mayor and Council<br>Borough Manager<br>OEM Coordinators  | Emergency<br>Operation Plan<br><br>Capital<br>Improvement                                   | 2010                                    | Medium                                    | Municipal<br>Funds<br><br>FMAP                          |
| Low      | Reduce water use for landscaping by imposing mandatory water use restrictions.    | Droughts   | Both  | Mayor and Council<br>Borough Manager<br>OEM Coordinators<br>Water Dept.<br>Supervisor<br>Public Works         | Capital<br>Improvement<br><br>Water<br>Ordinances   | 2009                                    | Low                                       | Municipal<br>Funds                                      |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Keyport

| Priority | Mitigation Action  | What hazards does the action address?                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|---|---|---|---|
| High     | Fireman's Park Bulkhead Extension from Bulkhead (Elevation 8.1) to Monmouth County Bridge on W. Front Street | Bayfront flooding; Storm wave action; Property damage | Both  | Mayor & Council   | Borough Supt. Of Engineering, OEM Coordinator, Borough Administrator                        | 2012 \$2.9 million                      |   | Grants, possible NJDEP Coastal Funding, Local Matching  |
| High     | Raising of Green Grove Avenue at Chingarora Creek culvert crossing to alleviate storm flooding               | Roadway flooding of a coastal evacuation route        | Both  | Mayor & Council   | Borough Supt. Of Engineering, OEM Coordinator, Borough Administrator                        | 2010 \$450,000                          | Grants                                    |   |
|          |  |   |   |   |   |   |   |   |

Please attach additional pages as needed.



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Lake Como

| Priority | Mitigation Action  | What hazards does the action address?                                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.      | What is the target date for completion? | How much is the action estimated to cost?   | What funding source(s) will be used to fund the action?   |
|----------|--|---|---|---|--|---|---|---|
| High     | Action 1C Enact Hazard Zoning/Ordinances on height of homes in flood areas to place foundations above flood plain.   | Flooding  | Both  | Mayor & Council   | Boro Administrator<br>Planning Board<br>Building official<br>Code Enforcement                    | 2008                                    | Low (mostly administrative work)  | Budget  |
| High     | Develop mitigation steps to reduce damage and losses due to flooding caused by Inland & Coastal Floods (Hurricanes & Nor'easters), which impact Lake Como. This would be achieved by controlling the water flow by a more efficient drainage system into the ocean. Specifically by utilizing pumps at Lake Como to control floodwaters. | Flooding due to inland and costal floods, Hurricanes and Nor'easters. | Both  | Mayor & Council   | Office of Emergency Management in coordination with other local municipalities, county and state | 2010                                    | \$250,000 to \$300,000 for pump and piping to ocean.<br>\$25,000 to \$30,000 for maintenance. | This would be a joint project between Lake Como and Belmar. We would be looking for Grants and Local match. |
|          |  |   |   |   |  |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

Borough of Little Silver\_\_\_\_\_

| Priority | Mitigation Action  | What hazards does the action address?                                       | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|---|---|---|---|
| High     | Action 4E: Develop mitigation steps to reduce damage and losses due to flooding caused by coastal flooding, hurricanes, nor'easters at the end of Little Silver Point Rd. (Howard's Beach) specifically by new outfall structure for storm drainage system | Flooding due to coastal storms, hurricanes, nor'easters, and storm surge    | Both  | Mayor and Council   | Boro Administrator, Engineer, Storm Water Management Plan                                   | 2009-10                                 | \$45,000.00                               | Local Budget, Available FEMA Grants                     |
| Medium   | Action 4F: Reduce the possibility of flood damage by conducting a stream maintenance plan.   | Flooding due to heavy rain events, hurricanes, nor'easters, and storm surge | Both  | Mayor and Council   | Boro Administrator, Engineer, Storm Water Management Plan                                   | 2009-10                                 | \$100,000.00                              | Local Budget, Available FEMA Grants                     |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) VILLAGE OF LOCH ARBOUR

| Priority | Mitigation Action  | What hazards does the action address?                                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.   | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|---|---|---|---|
| High     | Action 4E. Develop mitigation steps to reduce damage and losses caused by inland and coastal floods, hurricanes and nor'easters at Deal Lake through control of water flow and more efficient drainage to the Atlantic Ocean by electrification of Deal Lake Flume gates.<br>Note: The Village is a member of NFIP and has implemented a local warning system. | Flooding due to inland and coastal floods, hurricanes and nor'easters | Existing  | Deal Lake Commission, DEP, area municipal governing bodies  | Deal Lake Commission, Village Clerk, Office of Emergency Management in coordination with other local municipalities, county and state | 2009                                    | \$40,000                                  | Grants and local funds of multiple jurisdictions        |
| High     | Action 4F. Reduce the possibility of flood damage by conducting stream maintenance and clearing sediment from Deal Lake and surrounding streams in the watershed.  | Flooding due to inland and coastal floods, hurricanes and nor'easters | Existing  | Deal Lake Commission, DEP, area municipal governing bodies, county and state                                  | See above   | 2012                                    | Unknown                                   | Grants and local funds of multiple jurisdictions        |
| High     | Action 4H. Reduce possibility of flooding at the eastern terminus of Deal Lake by implementing stormwater retention projects identified by the Deal Lake Commission in the Regional Stormwater Management Plan for the Deal Lake Watershed   | Flooding due to inland and coastal floods, hurricanes and nor'easters | Existing  | See above   | See above   | 2015                                    | Unknown                                   | Grants and local funds of multiple jurisdictions        |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

## City of Long Branch

| Priority | Mitigation Action  | What hazards does the action address?                                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost?   | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|---|---|---|---|
| High     | Enact updated Hazard Zoning/ Ordinances.<br><br>Specifically to conform to FEMA's new FIRM program.  | Flooding  | Both  | Mayor and Council   | City Administration<br><br>Construction Official  | 2009                                    | Low   | Budget  |
| High     | Develop mitigation steps to reduce damage and losses due to flooding caused by Inland and Coastal Floods, Hurricanes and Nor'easters. Through control of water flow and through more efficient drainage to ocean and river.<br>Specifically, install drainage and storm water pipe to control flood waters and increase strategic locations to control flow. | Flooding Due to Inland and Coastal Floods, Hurricanes and Nor'easters | Both  | Mayor and Council   | Office of Emergency Management in coordination with Department of Public Works              | 2010                                    | Planning \$300,000<br><br>Pipe and inlets \$2.5 M<br><br>Recurring maintenance \$25,000 | Grants  |



| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.     | What is the target date for completion? | How much is the action estimated to cost?                               | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | Develop mitigation steps to reduce damage and losses due to flooding caused by excessive precipitation in areas surrounding City Hall from Broadway to Morris Avenue | Flooding Due to excessive precipitation and improper pipe sizing for increased development | Both  | Mayor and Council   | Office of Emergency Management Environmental Committee with other municipalities, county, state | 2012                                    | Planning \$65,000<br>Pipe and install \$200,000                         | Grants  |
| Medium   | Reduce the likelihood of flood damage by creating and executing a Stream & Lake Maintenance Plan   | Inland and Coastal Flooding.   | Both  | State DEP<br>Mayor and Council  | Office of Emergency Management in coordination with Department of Public Works                  | 2013                                    | \$40M   | Grants  |
| Medium   | Develop and implement a mitigation plan to control flash flooding condition under NJ Transit Railroad trestle near train station.                                    | Poor elevation and complicated by poor drainage and improper pitch of roadways             | Both  | Mayor and Council   | Office of Emergency Management in coordination with Department of Public Works                  | 2015                                    | Planning \$20,000<br>Pipe, pump and improved pitch of roadway \$350,000 | Grants  |
|          |  |  |   |   |   |   |   |   |

\*\*\* The City of Long Branch is currently working with FEMA with the implementation of the new FIRM maps. The maps are expected to be finalized within the next few months and while we have attempted to document all foreseeable problems once the final maps are issued new projects may have to be added to this project.





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) MANALAPAN TOWNSHIP

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br><i>(indicate: Existing, New, or Both)</i> | Who is responsible for implementing the action? <i>(List Title, Department, or Office – please do not use names)</i> | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|--|--|---|---|---|---|
| High     | Action #1 Holiday Lake Dredging Project. Temporary dewatering and removal of sediment, stream bank stabilization. Construction of an outlet control structure (sluice gate) between gate & existing headwall. | Flooding<br>Nor'easters<br>Hurricanes | Both   | Township Committee<br>Municipal Engineer   | Storm Water Management Plan   | 2011                                    | \$200,000.                                | Capital Budget & Available Grants                       |

*Please attach additional pages as needed.*



MANASQUAN BOROUGH  
IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **MANASQUAN BOROUGH**

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|--|---|---|---|---|---|
| High     | <b>Increase Public Warning Capabilities:</b><br>Upgrade existing AM Radio Station, increase warning siren coverage, implement Reverse911 system, install electronic sign system.                        | All Hazards                           | Both   | Office of Emergency Management with approval from governing body  | OEM / Local Emergency Planning Committee  | 2009                                    | \$100k                                    | Unknown   |
| High     | <b>Develop Residential Mitigation Strategies:</b><br>Develop specific hazard mitigation actions that home/business owners can undertake that will reduce property damage resulting from coastal storms. | Flooding, Wind and lightning Damage   | New  | Office of Emergency Management with approval from governing body  | OEM / Local Emergency Planning Committee  | 2010                                    | \$50k                                     | Unknown   |

*Please attach additional pages as needed.*



# MANASQUAN BOROUGH

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| High     | <b>Develop Public Outreach Program:</b><br>Implement a public outreach program that includes hazard identification, public warning systems and mitigation activities that home/business owners can undertake. | All Hazards                           | New   | Office of Emergency Management  | OEM / Local Emergency Planning Committee  | 2009                                    | \$0                                       | n/a   |
| High     | <b>Develop Digital GIS Flood Inundation Mapping:</b><br>Develop inundation mapping based upon aerial topographic mapping and incorporating the latest SLOSH values from the US Army Corps.                    | Flooding                              | Existing  | Office of Emergency Management with approval from governing body  | OEM / Local Emergency Planning Committee  | 2010                                    | \$60k                                     | Unknown   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Township of Marlboro

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|--|---|---|---|---|---|
| High     | Action 2D: Establish a stream cleaning program for Deep Run and its tributaries into Old Bridge Township to its deposit into the New Jersey American Water facility in Old Bridge Township. | Flooding                              | Both   | Engineering   | Engineering Public Works  | 2010                                    | \$500,000                                 | Grants, Local Funds of Multiple Jurisdictions           |
| High     | Action 2D: Establish a stream cleaning program for the Yellow Brook and its tributaries up to Buck's Pond in Colts Neck Township.   | Flooding                              | Both   | Engineering   | Engineering Public Works  | 2010                                    | \$250,000                                 | Grants, Local Funds of Multiple Jurisdictions           |
| High     | Action 2D: Establish a stream cleaning program for the Barclay Brook and its tributaries through Old Bridge Township to its deposit in the Matchaponix Brook.                               | Flooding                              | Both   | Engineering   | Engineering Public Works  | 2012                                    | \$1,000,000                               | Grants, Local Funds of Multiple Jurisdictions           |

*Please attach additional pages as needed.*



| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| High     | Action 2D: Establish a stream cleaning program for Melvins Brook and its tributaries through Manalapan Township to its deposit in McGellairs Brook. | Flooding                              | Both  | Engineering   | Engineering and Public Works  | 2012                                    | \$2,000,000                               | Grants, Local Funds of Multiple Jurisdictions           |
| High     | Action 4A: Increase public awareness relating to the risks associated with severe weather events and the importance of personal preparedness.       | All                                   | Both  | Administration  | Administration Office of Emergency Management   | 2009                                    | Minimal μ Administrative                  | Local Budget  |
| High     | Action 1D: Improve the Townships ability to alert and warn the public in the event of impending severe events.                                      | All                                   | Both  | Office of Emergency Management  | Administration Police Department Office of Emergency Management                             | 2010                                    | unknown                                   | Local Budget  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **Borough of Matawan**

| Priority | Mitigation Action  | What hazards does the action address?                                   | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action?        |
|----------|--|---|--|---|---|---|---|--|
| Low      | Replacement of the Lake Lefferts Dam   | Flooding due to Inland flooding, Hurricanes and Nor'easters             | Existing   | Mayor/Council;<br>Monmouth County Engineering Dept.   | Monmouth County Freeholder and Mayor and Council  | 2012                                    | \$16 Mil.                                 | Monmouth County participation, 2004 NJDEP Dam Restoration Loan |
| Low      | Replacement of the Lake Matawan Dam  | Flooding due to Inland flooding, Hurricanes and Nor'easters             | Existing   | Mayor/Council;<br>Monmouth County Engineering Dept.   | Monmouth County Freeholder and Mayor and Council  | 2015                                    | \$16 Mil.                                 | Monmouth County participation, NJDEP Dam Restoration Loan.     |
| Medium   | Reduce flooding frequency of Aberdeen Road- downstream from Lake Lefferts- elevate roadway | Flooding due to Inland and Coastal flooding, Hurricanes and Nor'easters | Existing   | Mayor/Council;<br>Borough Engineer  | Mayor and Council   | 2016                                    | approx \$1 -2 Mil                         | State and Local  |

*Please attach additional pages as needed.*



MIDDLETOWN  
IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_MIDDLETOWN\_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
|          | <p>Action 1C Enact Hazard Zoning/ Ordinances. Township recently amended ordinance for height flexibility. Height can be measured after the lot is filled to place foundations above flood plain</p> <p>Note: Township is member of NFIP (1A) and has a Storm water Management Plan (1E)</p> | 100 year flood                        | Both  | Planning and Building Department  | Planning and Zoning Department  | 2008                                    | Low                                       | Local funds   |
|          | Within the flood hazard areas, raise dwelling units one feet above base flood elevation   | 100 year flood                        | Existing  | State DEP and Planning Department   | Construction and Planning Department  | 2015                                    | \$ 30 M                                   | Grants  |

*Please attach additional pages as needed.*



# MIDDLETOWN

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names)    | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|--|---|---|---|---|
|          | Action 4F Conduct a routine stream and ditch maintenance program in flood prone areas | Mosquito Control                      | <i>Existing</i>   | In conjunction with Monmouth County Mosquito Control Commission- Regular program of Stream and Ditch Maintenance | Public Works  | 2010                                    | Low                                       | Local and County Funds                                  |
|          | Wetlands Maintenance and Removal of invasive plant species                            | Flooding and Fire Hazards             | <i>Existing</i>   | Mayor and Township Committee   | Public Works and Fire Department  | 2012                                    | \$ 1 M                                    | Grants  |
|          | Maintenance and upgrade of storm water management structures and facilities           | Flood and Mosquito Control            | <i>Both</i>   | Mayor and Township Committee   | Public Works and Engineering Department   | 2015                                    | \$ 5 M                                    | Grants  |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) MILLSTONE TOWNSHIP

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action?      |
|----------|--|--|--|---|---|---|---|--|
| HIGH     | Develop mitigation steps to reduce damage and losses due to flooding through control of storm water runoff and more efficient drainage and discharge to five major streams | Severe thunderstorms, hurricanes, Nor'easters, Storm Surge                                     | Both   | Mayor and Township Committee and OEM Coordinator  | OEM Coordinator   | 2011                                    | \$400,000                                 | Grants both State and Federal and some in-kind services      |
| HIGH     | Develop mitigation steps to reduce significant damage from losses to do wild fires.  | Wild Fires, thunderstorms, fallen electrical wires, plane crashes, and motor vehicle accidents | Both   | Mayor and Township Committee and OEM Coordinator  | OEM Coordinator   | 2011                                    | \$200,000                                 | Grants both from State and Federal and some in-kind services |
|          |  |  |  |   |   |   |   |  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) BOROUGH OF MONMOUTH BEACH

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|--|---|---|---|---|---|
| HIGH     | Install drainage to relieve flooding from flood prone areas.<br>Example; Johnson St./Anderson St./Drew Ct./Valentine St. | High Tide Flooding<br>Northeast Storms<br>Flash Flooding due to heavy rains.<br>Hurricane.<br>Snow Event | Existing   | Local Government  | Storm Water Management Plan adopted as a local Ord.   | 2008-2012                               | \$500,000.00                              | Local Funding in addition to available grants           |
|          |  |  |  |   |   |   |   |   |
|          |  |  |  |   |   |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_Neptune City\_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|--|---|---|---|---|---|
| High     | Action 2.C Implement a public awareness campaign on the use of grounded electric outlets and surge protectors     | Lighting Strikes                      | Both   | Office of Emergency Management  | LEPC  | 2009                                    | \$200                                     | Local budget  |
| High     | Action 11.B Implement a public awareness campaign on driving in winter storms and handling related health effects | Winter storms                         | Both   | Office of Emergency Management  | LEPC  | 2009                                    | \$200                                     | Local Budget  |
| Medium   | Action 2.C Develop a plan and seek funding for backup electric for shelters                                       | All                                   | Both   | Mayor and Council   | LEPC  | 2009                                    | \$100,000                                 | Grants and local budget                                 |

*Please attach additional pages as needed.*



NEPTUNE TOWNSHIP  
IMPLEMENTATION STRATEGY

(Name of Jurisdiction) TOWNSHIP OF NEPTUNE

| Priority | Mitigation Action   | What hazards does the action address?      | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|--|---|---|---|---|---|
| High     | Identify outfalls to Category One waterways and other receiving bodies, retrofit with Tideflex or equivalent and install stormceptors prior to discharge to waterbody | Flooding<br>Environmental<br>Wind<br>Storm | Existing Emergency Management<br>Existing Public Roadways                                    | Township Committee<br>Engineering   | Township Committee  | 6/9                                     | +/-750,000                                | Local/State/Federal                                     |
| High     | Seek funding for dredging of Shark River. Coordination with adjoining municipalities.   | Flooding<br>Environmental<br>Storm         | Existing Public Marina<br>Existing Roadways<br>Emergency Management                          | Township Committee<br>Engineering   | Township Committee  | Current-ongoing                         | Unknown at this time                      | Local/State   |
| High     | Seek funding for replacement of bulkhead along Shark River  | Flooding<br>Storm<br>Environmental         | Existing Roadways<br>Existing Public Marina<br>Emergency Management                          | Township Committee<br>Engineering<br>Public Works   | Township Committee  | Current-ongoing                         | 3.5 million                               | Local/State   |

*Please attach additional pages as needed.*



# NEPTUNE TOWNSHIP

| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| High     | Implement GIS Based Hazard Data on the Neptune Website and through publications made available to the public  | Flooding<br>Wind<br>Storm              | Building<br>Construction  | Township Committee<br>Building<br>Construction  | Township<br>Committee<br>Zoning   | 9/09                                    | Unknown at this time                      | Local   |
| High     | Encourage Public to build/modify to be more disaster resistant building. Further educate construction department to aid public in same                              | Flooding<br>Storm<br>Wind<br>Hurricane | Building<br>Construction  | Township Committee<br>Building<br>Construction<br>Zoning  | Township<br>Committee<br>Building<br>Construction   | 9/09                                    | Unknown at this time                      | Local   |
| High     | Include in Neptune Day a public awareness information booth. Preparation of informational packets for safety, mitigation, evacuation routes and available resources | Flood<br>Wind<br>Storm                 | Township Committee<br>Building<br>Construction  | Building<br>Construction  | Clerk   | 3/09                                    | Unknown at this time                      | Local   |

*Please attach additional pages as needed.*



# NEPTUNE TOWNSHIP

| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|---|---|---|---|---|---|
| Medium   | Preparation of study of streams and capacity and prioritize. Preparation and analysis of access and plan to desnag/desilt streams and waterways  | Flooding<br>Storm<br>Environmental    | Township Committee<br>Construction  | Township Committee<br>Engineering   | Township<br>Committee   | 9/10                                    | Unknown at this time                      | Local/State   |
| Medium   | Seek funding for Bank Stabilization along Shark River Prepare plan and specifications for Bank Stabilization location, extents and cross-section | Flooding<br>Storm                     | Township Committee<br>Existing Public<br>Roadways<br>Existing Emergency<br>Management       | Township Committee  | Township<br>Committee   | 3/10                                    | Unknown at this time                      | Local/State   |
| Medium   | Seek funding for lake dredging, preparation of plans and specifications for dredging of lake Fletcher/Wesley/Alberta                             | Flooding<br>Storm<br>Environmental    | Township Committee  | Township Committee<br>Environmental   | Township<br>Committee   | 12/10                                   | Unknown at this time                      | Local/State   |

*Please attach additional pages as needed.*



# NEPTUNE TOWNSHIP

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| Medium   | Preparation of plans and specifications for Construction of Salt Dome.  | Storm Environmental                   | Existing Emergency Management   | Township Committee Engineering  | Township Committee  | 9/08                                    | <100,000.00+/-                            | Local   |
| Low      | Preparation of Hazard Overlay Zones   | Storm Flooding                        | Existing Emergency Management<br>Existing Zoning<br>Existing Construction Dept              | Township Committee  | Township Committee Zoning   | 12/10                                   | Unknown at this time                      | Local   |
| Low      | Study to determine extent of beach replenishment at Ocean Grove. Preparation of Plans and specifications for same | Flooding Storm                        | Existing Emergency Management<br>Existing Public Boardwalk                                  | Township Committee Engineering  | Township Committee  | 12/12                                   | Unknown                                   | Local/State/FEMA  |

*Please attach additional pages as needed.*



## OCEAN TWP IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Ocean Twp

**This form should ONLY be completed AFTER your jurisdiction has considered the full range of possible mitigation actions set forth in the Risk Assessment Interim Deliverable (completed in February 2008), selected a subset of the actions that your jurisdiction would like to implement, and prioritized those actions using the Prioritization of Actions worksheet. This worksheet is intended to document how you will implement your selected actions and is REQUIRED for each municipality participating in the planning process. You should complete this worksheet AFTER the Prioritization of Actions worksheet. This worksheet must be received by URS no later than April 30, 2008 in order to be included in the Plan (send to: Anna Foley, URS, 201 Willowbrook Blvd., 3<sup>rd</sup> Floor, Wayne, NJ 07470-7005, Phone: 973-785-0700 ext. 339, Fax: 973-812-0985, Email: [anna\\_foley@urscorp.com](mailto:anna_foley@urscorp.com)). A Working Session of the Core Planning Group will be held in April 2008 where the URS Team will walk you through completion of this form and will be available to answer questions.**

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | Set up detention Pond and berm system to prevent future flooding for Popular Brook                                   | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami | Both  | Twp Manager, DPW, OEM, Twp Engineer, Army Corp, State DEP   | To be included in Storm water Management Plan and flood plain ordinance                     | 2009-2010                               | 5 million dollars                         | Federal, Green Acres (State), County, Municipal         |
| High     | Widen coverts under roadways in three different streets for Popular Brook  | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami | Both  | Twp Manager, DPW, OEM, Twp Engineer, Army Corp, State DEP, County Bridge Dept, State DOT                      | To be included in Storm water Management Plan and flood plain ordinance                     | 2009-2010                               | 3 million dollars                         | Federal, Green Acres (State), County, Municipal         |
| High     | Build a detention pond to gather more water and prevent large amounts of water to move downstream in Whalepond Brook | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami | Both  | Twp Manager, DPW, OEM, Twp Engineer, Army Corp, State DEP   | To be included in Storm water Management Plan and flood plain ordinance                     | 2011-2012                               | 5 million dollars                         | Green Acres (State), County, Municipal                  |
| High     | Widen coverts under roadways in three different streets for Popular Brook  | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami | Both  | Twp Manager, DPW, OEM, Twp Engineer, Army Corp, State DEP, County Bridge Dept, State DOT                      | To be included in Storm water Management Plan and flood plain ordinance                     | 2011-2012                               | 3 million dollars                         | Green Acres (State), County, Municipal                  |

*Please attach additional pages as needed.*





# OCEAN TWP

| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| Medium   | Planning and Funding Improvements to Telecomm and Electrical Systems at Critical Facilities including Facilities used For EOC and as local shelters | Hurricane, Tropical Storm, Nor'easter, Winter Storm, Flood, Storm Surge, Tsunami, Hail Storm, Wildfire | New   | Twp Manager, DPW, OEM   | Through OEM annexes and emergency services procedures                                       | 2010                                    | \$500,000.00                              | Grant and Local Budget                                  |
|          |   |  |   |   |   |   |   |   |
|          |   |  |   |   |   |   |   |   |
|          |   |  |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## OCEANPORT IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **Borough of Oceanport**

| Priority                                 | Mitigation Action  | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action?                                     |
|--|--|---|---|---|---|---|---|---|
| <b>Priority 1-<br/>High-<br/>Phase 1</b> | Infrastructure-Critical Facility-<br>Relocation of Boro Hall and<br>DPW<br><br>Acquire property for relocation | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | Existing-Old Boro Hall;<br>DPW<br>New- Possible old site<br>for open space                  | Mayor/Council;<br>Boro Engineer   | Mayor and<br>Council/Comm<br>tee or<br>Commission   | 2010                                    | Under \$1 Mil.                            | Capital<br>Improvement;<br>Open Space<br>Fund;<br>State Grants                              |
| <b>Priority 1-<br/>High-<br/>Phase 2</b> | Infrastructure-Critical Facility-<br>Relocation of Boro Hall and<br>DPW<br><br>Construction of New Facility    | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | Existing-Old Boro Hall;<br>DPW<br>New- Possible old site<br>for open space                  | Mayor/Council;<br>Boro Engineer   | Mayor and<br>Council/Comm<br>tee or<br>Commission   | 2014                                    | Est. \$8 Mil.                             | Capital<br>Improvement;<br>Open Space<br>Fund;<br>State Grants;<br>Federal<br>Grants/Progs. |
| <b>Priority 2-<br/>Medium</b>            | Remediation of Turtle Mill<br>Floodway<br>-Stream Cleaning   | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | State and<br>County<br>Roadways in three<br>municipalities                                  | Boro Engineer   | Boro Ord. 36<br>Flood Damage<br>Prevention  | 2010                                    | Under \$1 Mil                             | State, County<br>and Local  |
| <b>Priority 3-<br/>Med-<br/>Phase 1</b>  | Infrastructure- Examination of<br>Storm Water System, Port-au-<br>Peck Section                                 | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | County and Local<br>Roadways  | Boro Engineer   | Boro Ord. 36<br>Flood Damage<br>Prevention/<br>Storm Water<br>Management                    | 2010                                    | \$150,000.00                              | Capital<br>Improvement;<br>State Grants;<br>Federal<br>Grants/<br>Programs                  |

*Please attach additional pages as needed.*



# OCEANPORT

| Priority                                | Mitigation Action   | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action?            |
|---|---|---|---|---|---|---|---|--|
| <b>Priority 3-<br/>Med-<br/>Phase 2</b> | Infrastructure- Remediation of Storm Water System, Port-au-Peck Section                   | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | County and Local Roadways   | Boro Engineer   | Boro Ord. 36<br>Flood Damage Prevention /Storm Water Management                             | 2012                                    | TBD based on above Phase 1 findings       | Capital Improvement; State Transport Grants; Federal Grants/Progs. |
| <b>Priority 4-<br/>Low</b>              | Infrastructure- Remediation Roadway Flooding- Grading, Elevating, or Back flow preventers | Hurricane & T.S-H<br>Nor'easter-H<br>Storm Surge-M<br>Flood-L | County and Local Roadways   | Boro Engineer   | Boro Ord. 36<br>Flood Damage Prevention / Storm Water Management                            | 2015                                    | \$3-5 Mil                                 | State, County and Local Funding                                    |

*Please attach additional pages as needed.*

# IMPLEMENTATION STRATEGY 2008

## Borough of Oceanport

Priority One- Critical Facilities Moving of Borough Hall and DPW out of the flood plain

Phase One- Acquire Property

Phase Two- Construction of New Complex

Priority Two-Remediation of Turtle Mill Floodway

Accepts water from three towns Oceanport, West Long Branch, Eatontown

Recognized Floodway by FEMA, Panel 0192F Map 34025C

Effects State Highway 36, Cty 537 and 11 (Eatontown Blvd and Oceanport Ave.)

Priority Three- Roadway Flooding Problems:

Phase One- Examination of Storm Water System, Port-au-Peck Section

Looking for collapsed pipe, undersize pipes, blockages

Phase Two- Remediation of Storm Water System, Port-au-Peck Section

Corrections, replacements of pipe within system

Install Flow Back preventers on tidally influenced outfall pipes

Priority Four- Elevation, re-grading of

Oceanport Ave (County Route 11)

Between Summerfield Ave and Highway 36

Between Main St and Riverside Ave.

Eatontown Blvd. (County 537) Between Highway 36 and Crescent Pl.

Monmouth Blvd. Between Myrtle and Adrain

Monmouth Blvd. (County 33), Between Myrtle and Shrewsbury

Seneca Pl. and Itaska

Gooseneck Pt. Rd

Shore Rd

Cayuga Ave.

**IMPLEMENTATION STRATEGY**

Borough of Red Bank \_\_\_\_\_

| Priority | Mitigation Action  | What hazards does the action address?                      | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|--|---|---|---|---|---|
| High     | Enact Hazard Zoning/ Ordinances. Specifically allow variances on height of homes in flood areas to place foundations above flood plain | Flooding   | Both   | Mayor and Council   | Boro Administrator<br>Planning Board<br>Code Enforcement                                    | 2008                                    | Low (administrative)                      | Budget  |
| High     | Develop Plans for a Community Emergency Alerting System<br><br>Replacement of existing outdated system                                 | All  | Both   | Mayor and Council<br>Police/Fire/OEM  | Boro Administrator<br>Police/Fire/<br>OEM   | 2010                                    | Unknown                                   | Budget  |
| High     | Develop plans and Mitigation steps to reduce or eliminate flooding and erosion to Marine Park  | Flooding Due to Coastal Floods, Hurricanes and Nor'easters | Both   | Mayor and Council   | Boro Administrator<br>T & M Associates<br>Private Contractor                                | 2010                                    | Unknown                                   | Grants, Local Funds                                     |

*Please attach additional pages as needed.*



| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion?            | How much is the action estimated to cost?                       | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|--|---|---|
| Medium   | Reduce the possibility of flood damage by conducting a Storm Management Maintenance Plan and Cleaning and Maintaining the Existing System                       | All                                   | Both  | Mayor and Council   | Boro Administrator<br>DPW<br>Environmental Committee  | 2009   | Unknown   | Grants/<br>Budget                                       |
| Medium   | Planning for and Funding Improvements to Infrastructure System of the Boro Water and Sewer System   | All                                   | Both  | Mayor and Council   | Boro Administrator<br>T & M<br>Associates<br>DPW  | 2009   | Unknown<br>Engineering<br>Fees<br>Private<br>Contractors<br>DPW | Local<br>Budget   |
| Medium   | Reduce the possibility of damage to emergency facilities by conducting an evaluation to determine existing level of protection and implementing recommendations | All                                   | Both  | Mayor and Council   | Boro Administrator<br>T & M<br>Associates<br>Various<br>Department<br>Heads                 | 2009 for<br>evaluation;<br>Implementat<br>ion 2012 | unknown   | Budget  |

*Please attach additional pages as needed.*



BOROUGH OF RUMSON

## RUMSON IMPLEMENTATION STRATEGY

| Priority       | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------------|---|--|---|---|---|---|---|---|
| 1) Medium      | Implement early flood warning system for Shrewsbury and Navesink Rivers as a shared service with other towns along the rivers | Flooding<br>Nor'easter<br>Hurricane<br>Storm surge                                 | New   | Mayors and Council members of all river towns; Monmouth University; Stephens Institute of Technology          | Emergency Operations Plan   | 2009-2010                               | Low                                       | Grants and local match                                  |
| 2) Medium      | Enact new FEMA flood maps as part of planning and zoning regulations  | Flooding<br>Nor'easter<br>Hurricane<br>Storm surge                                 | New   | Mayor and Council Planning Board<br>Zoning Board  | Master Plan   | 2009                                    | Low; Administration                       | Neutral   |
| 3) Medium      | Implement stream and pond cleaning to speed draining of flood prone areas and follow up with regular maintenance              | Flooding<br>Heavy rain<br>Nor'easter<br>Hurricane<br>Storm surge                   | Existing  | Mayor and Council<br>Public Works<br>Monmouth County<br>Mosquito Commission                                   | Master Plan   | Ongoing                                 | Low                                       | Budget, Borough and County                              |
| 4) <b>HIGH</b> | Upgrade shelter facility located at Rumson Fair Haven Regional High School, including emergency power facility                | Flooding<br>Nor'easter<br>Hurricane<br>Extreme heat<br>Storm surge<br>Winter storm | Existing  | Mayor and Council<br>Board of Education<br>O.E.M.   | Shelter Plan  | 2010                                    | 250k                                      | Grant; Municipal Budget; School Budget                  |

*Please attach additional pages as needed.*



# RUMSON

| Priority           | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost?               | What funding source(s) will be used to fund the action? |
|--------------------|---|--|---|---|---|---|---|---|
| 5) <b>HIGH</b>     | Continue to maintain current warning systems that are already operational including website, AM radio, Reverse 911 calling system and emergency siren alerting system | Nor'easter<br>Hurricane<br>Flooding<br>Storm surge<br>Extreme heat<br>Winter storm | Existing  | Mayor and Council<br>O.E.M. Director<br>Police  | Emergency Operations Plan   | Ongoing                                 | Est. 10-15k annually; all systems less than 2 years old | Municipal Budget;<br>Grants                             |
| 6) Medium/<br>High | Tree maintenance of shade trees along streets in community; increase effectiveness of Public Works to clear trees in event of storm                                   | Wind and rain events;<br>Winter storms   | Existing  | Mayor and Council<br>O.E.M. Director<br>Public Works  | Public Works mandate  | Ongoing equipment purchase in 2009-2010 | 50k for used equipment; could be shared service         | Grants;<br>Municipal and County budgets                 |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Sea Bright \_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| High     | Develop a storm, flood and wind action plan which will include, police, fire and public works volunteer groups, to allow Sea Bright to be methodically protected during a storm or flood event. | Flood<br>Wind<br>Storm                | Existing Emergency Management   | Mayor & Council;<br>Emergency Management  | Mayor & Council   | 12/08                                   | \$5000                                    | Local   |
| High     | Explore and implement a project to elevate private homes in flood prone areas with State or Federal funds.  | Flood<br>Storm                        | Both  | Construction Office   | Zoning  | 2015                                    | Not Known                                 | State<br>Federal  |
|          |   |                                       |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Sea Bright \_\_\_\_\_

| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|---|---|---|---|---|---|
| High     | Support and create a hazardous material response team including training and equipment to protect by the citizens of Sea Bright and the environment, rather than relying on state, federal or county agencies.                                       | Storm Environmental                   | Existing Emergency Management   | Emergency Management  | Mayor & Council   | 12/09                                   | \$25000                                   | Local State   |
| High     | Develop a town wide strategy to aid both local, county, state and federal officials to provide the replacement of sand along the Atlantic Ocean Beach for protection of both the NJSH Route 36 corridor, local residences, businesses and bulkheads. | Storm Environmental                   | Mayor & Council   | Mayor & Council   | Mayor & Council   | Ongoing                                 | Not Known                                 | Local State   |
|          |  |                                       |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Sea Bright \_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| High     | Develop a town wide strategy to aid both local, county, state and federal officials to provide the reconstruction of bulkheads along the Shrewsbury River for protection of both the NJSH Route 36 corridor, local residences, businesses and bulkheads | Storm Environmental                   | Mayor & Council   | Mayor & Council   | Mayor & Council   | Ongoing                                 | Not Known                                 | Local State   |
| Medium   | Encourage citizens and businesses when re-building or modifying their buildings to provide underground utilities in order to promote utilities that are generally not prone to damage during high winds and flooding incidents.                         | Flood Wind Storm                      | Mayor & Council Building Department   | Building Department   | Ongoing   | Not Known                               | Not Known                                 | Municipal FEMA  |
|          |   |                                       |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Sea Bright \_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| Medium   | Include in Sea Bright Day a public education and awareness component for hazard mitigation, citizen safety, include mitigation techniques highlighting our available resources.                         | Flood<br>Wind<br>Storm                | Mayor & Council Clerk   | Mayor & Council Clerk   | Clerk's Office  | 10/20/08                                | \$500                                     | Municipal   |
| Medium   | Provide additional support and training for the Building Department on wind and flood resistance structures, including information on hurricane clips, wind shutters, beyond the minimum Building Code. | Wind<br>Flood                         | Building Department   | Building Department   | Mayor   | 12/2009                                 | Not Known                                 | Municipal   |
|          |   |                                       |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) SEA GIRT, NEW JERSEY

| Priority | Mitigation Action  | What hazards does the action address?                                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.      | What is the target date for completion? | How much is the action estimated to cost?                                  | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|--|---|--|---|
| High     | Enact Hazard Zoning/ Ordinances. Specifically allow variances on height of homes in flood areas to place foundations above flood plain   | Flooding  | Both  | Mayor and Council   | Boro Administrator<br>Planning Board<br>Code Enforcement   | 2008-09                                 | Low<br>(administrative)  | Budget  |
| High     | Develop mitigation steps to reduce damage and losses due to flooding caused by Inland and Coastal Floods, Hurricanes and Nor'easters at local ponds (Wreck Pond ) through control of water flow and through more efficient drainage to ocean. Specifically pumps at Wreck Pond to Control Flood waters and use of weirs in strategic locations to control flow ( all done in conjunction with Spring Lake) | Flooding Due to Inland and Coastal Floods, Hurricanes and Nor'easters | Both  | Mayor and Council   | Office of Emergency Management in coordination with other local municipalities, county and state | 2010-11                                 | Planning \$200k<br>Pumps \$1M,<br>weirs tbd<br>Recurring maintenance \$30k | Grants and local match                                  |

*Please attach additional pages as needed.*



|        |  |  |      |                                |   |  |  |   |
|--------|--|--|------|--------------------------------|---|--|--|---|
| High   | Reduce the possibility of flooding at Wreck Pond by implementing stormwater retention projects identified by the Wreck Pond Regional Stormwater Management Committee in Subregion 12 watershed             | Flooding Due to Inland and Coastal Floods, Hurricanes and Nor'easters                | Both | Mayor and Council              | Office of Emergency Management Environmental Committee with other municipalities, county, state | 2012-3                                   | Unknown  | Grants, Local Funds of Multiple Jurisdictions |
| Medium | Reduce the possibility of flood damage by conducting a Stream Maintenance Plan and cleaning out sediment at Wreck Pond and Black Creek. We will need to work with Spring Lake, SL Heights and Wall on this | Inland and Coastal Flooding. (Has additional impact on health and beach environment) | Both | State DEP<br>Mayor and Council | Office of Emergency Management Boro Administrator Environmental Committee                       | 2015                                     | \$30M  | Grants  |
| Medium | Planning for and Funding Improvements to Communications and Electrical Systems at Critical Facilities including Facilities used For EOC and as local shelters  | All  | Both | Mayor and Council              | Boro Administrator  | 2009                                     | \$100k est for Emergency Power and Telecomm upgrades | Local Budget                                  |
| Medium | Reduce the possibility of damage to emergency facilities by conducting an evaluation to determine existing level of protection, particularly to flooding, and implementing recommendations                 | All  | Both | Mayor and Council              | Local Emergency Planning Committee  | 2009 for evaluation; Implementation 2012 | unknown  | Budget  |

*Please attach additional pages as needed.*



# SHREWSBURY BOROUGH IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_Shrewsbury Borough\_\_\_\_\_

| Priority | Mitigation Action                                  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|--|---|---|---|---|---|
| High     | Upgrade storm water infrastructure on Haddon Ave   | Flooding                              | Existing   | Borough Engineer  | See attached  | 2009/10                                 | \$75,000                                  | Grants  |
| High     | Upgrade storm water infrastructure on Monroe Ave   | Flooding                              | Existing   | Borough Engineer<br>Monmouth County<br>NJDEP oversight  |   | 2009/10                                 | \$150,000                                 | Grants  |
| High     | Upgrade storm water infrastructure on Trafalgar Pl | Flooding                              | Existing   | Borough Engineer  |   | 2009/10                                 | \$100,000                                 | Grants  |

*Please attach additional pages as needed.*



# SHREWSBURY BOROUGH

| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|---|---|---|---|---|---|
| High     | Stream Management  | Flooding                              | Existing  | Borough Engineer/<br>DPW<br><br>NJDEP permits required  | Implementation determined by NJDEP  | 2009/10                                 |   | Grants  |
| High     | Upgrade storm water infrastructure on Newman Springs Rd  | Flooding                              | Existing  | County and Borough Engineer   |   | 2009/10                                 |   | Grants  |
| Medium   | CERT programs and Public Outreach including potable water conservation and drought limitations | Various                               | Existing  | OEM   | Emergency Operations Plan   | 2009/10                                 | \$10,000                                  | Grants  |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Shrewsbury Township\_\_\_\_\_

| Priority | Mitigation Action   | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---------------------------------------|---|---|---|---|---|---|
| Medium   | Action 2.C Planning for funding and improvements to Telecommand Electrical Systems at Critical facilities including EOC and local shelters. | All                                   | Both  | Mayor and Council   | -   | 2009                                    | High                                      | Budget  |
| Medium   | Action 1.E Develop stormwater management plan.  | Health and Environment                | Both  | Mayor and Council   | -   | 2008                                    | Medium                                    | Budget  |
|          |   |                                       |   |   |   |   |   |   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Spring Lake Heights

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | Action 1C: Explore the need for hazard zoning and high risk hazard land use ordinances<br>Raising Utilities, Exceeding Height requirements | Flooding, NorÑ EasterÑs, Hurricane, Storm surge, Heavy Rain event                            | Both  | Mayor and Council   | Municipal Code Book<br>Master Plan  | 2009/2010                               | Minimal                                   | Local Budget  |
| High     | Action 4D: Continue to implement the best mitigation practices for flood plain areas.  | Flooding NorÑ EasterÑs, Hurricane, Storm surge, Heavy Rain event                             | Both  | Mayor and Council   | Municipal Code Book<br>Master Plan  | 2009/2010                               | Unknown                                   | Local Budget/<br>Available Grants                       |
| High     | Action 2B: Create a mitigation outreach program to prepare residents for disaster  | Flooding NorÑ EasterÑs, Hurricane, Storm surge, Heavy Rain Drought extreme heat winter storm | N/A   | Mayor and Council   | No existing planning Mechanism  | 2010/2011                               | Unknown                                   | Local Budget Grants with local match                    |

*Please attach additional pages as needed.*

6/9/2008 16/9/2008 1



## Spring Lake Monmouth County NJ

### IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **Spring Lake Monmouth County NJ**

| Priority | Mitigation Action  | What hazards does the action address?   | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.      | What is the target date for completion? | How much is the action estimated to cost?                                  | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|--|---|--|---|
| High     | Action 1C Enact Hazard Zoning/ Ordinances. Specifically allow variances on height of homes in flood areas to place foundations above flood plain   | Flooding  | Both  | Mayor and Council   | Boro Administrator<br>Planning Board<br>Code Enforcement   | 2008                                    | Low<br>(administrative)  | Budget  |
| High     | Action 4E Develop mitigation steps to reduce damage and losses due to flooding caused by Inland and Coastal Floods, Hurricanes and Nor'easters at local ponds (Wreck Pond and Lake Como) through control of water flow and through more efficient drainage to ocean. Specifically pumps at Wreck Pond and/or Lake Como to Control Flood waters and use of weirs in strategic locations to control flow | Flooding Due to Inland and Coastal Floods, Hurricanes and Nor'easters                   | Both  | Mayor and Council   | Office of Emergency Management in coordination with other local municipalities, county and state | 2010                                    | Planning \$200k<br>Pumps \$1M,<br>weirs tbd<br>Recurring maintenance \$30k | Grants and local match                                  |
| Medium   | Action 4F Reduce the possibility of flood damage by conducting a Stream Maintenance Plan and cleaning out sediment at Wreck Pond and Black Creek   | Inland and Coastal Flooding.<br>(Has additional impact on health and beach environment) | Both  | State DEP<br>Mayor and Council  | Office of Emergency Management<br>Boro Administrator<br>Environmental Committee                  | 2015                                    | \$30M  | Grants  |

*Please attach additional pages as needed.*



## Spring Lake Monmouth County NJ

| Priority                   | Mitigation Action  | What hazards does the action address?                                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented.     | What is the target date for completion?  | How much is the action estimated to cost?            | What funding source(s) will be used to fund the action? |
|----------------------------|--|---|---|---|---|--|--|---|
| High<br>(Highest Priority) | Action 4H Reduce the possibility of flooding and increase early warning of potential flood conditions at Wreck Pond by implementing stormwater retention projects identified by the Wreck Pond Brook Regional Stormwater Management Plan (RSWMP) Committee in Subregion 12 watershed and by implementing sensor systems (preferably USGS) in the watershed | Flooding Due to Inland and Coastal Floods, Hurricanes and Nor'easters | Both  | Mayor and Council   | Office of Emergency Management Environmental Committee with other municipalities, county, state | 2012                                     | Unknown  | Grants, Local Funds of Multiple Jurisdictions           |
| Medium                     | Action 2C Planning for and Funding Improvements to Telecomm and Electrical Systems at Critical Facilities including Facilities used For EOC and as local shelters  | All   | Both  | Mayor and Council   | Boro Administrator  | 2009                                     | \$100k est for Emergency Power and Telecomm upgrades | Local Budget  |
| Medium                     | Action 14 A Reduce the possibility of damage to emergency facilities by conducting a n evaluation to determine Existing level of protection, particularly to flooding, and implementing recommendations  | All   | Both  | Mayor and Council   | Local Emergency Planning Committee  | 2009 for evaluation; Implementation 2012 | unknown  | Budget  |

*Please attach additional pages as needed.*

**IMPLEMENTATION STRATEGY****TINTON FALLS**

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| Priority | Mitigation Action  | What hazards does the action address?                            | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | Action 1.E μ Develop a storm water management plan that includes subdivision regulations to control run-off; both for flood reduction and to minimize saturated soils on steep slopes that can cause landslides.<br><i>Sycamore Ave. storm drainage<br/>Water St. erosion (Pine Brook)</i> | Promote disaster resistant development                           | Both  | Mayor and Council   | Administrator<br>Planning Board<br>Boro. Engineer   | 2008                                    | Low<br>(administrative)                   | Local Funds   |
| High     | Action 11.C μ Ice and windstorm-resistant trees and landscaping practices to reduce related hazards<br><i>Throughout Municipality</i>  | Reduce the possibility of damage and losses due to winter storms | Both  | Mayor and Council   | Administrator<br>OEM<br>Code Enforce.<br>Public Works                                       | 2009                                    | Unknown                                   | Budget  |
| High     | Action 9.B μ Locally identify and map specific areas of potential slope failure and limit future development in these areas.<br><i>Water Street into Pine Brook</i>  | Reduce the possibility of damage and losses due to landslides    | Both  | Mayor and Council   | Administrator<br>OEM<br>Boro. Engineer<br>Environmental Committee                           | 2008                                    | Low<br>(administrative)                   | Local Funds   |

*Please attach additional pages as needed.*



| Priority | Mitigation Action   | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|--|---|---|---|---|---|---|
| High     | Action 4.F - Conduct a routine maintenance program and seek financial assistance to clean out stream segments with heavy sediment deposits.<br><i>Whale Pond Brook</i><br><i>Jumping Brook</i>  | Reduce the possibility of damage& losses due to flooding by hurricanes, severe storms, Nor'easters | Both  | Mayor and Council   | Administrator<br>Boro. Engineer<br>Environmental Committee                                  | 2009                                    | Unknown                                   | Budget  |
| High     | Action 4.G μ Develop specific mitigation solutions for flood-prone roadways and intersections under the leadership of NJDOT. Develop a work plan for when sites will be surveyed and what role Borough can play in selection and implementation of mitigation activities.<br><i>County Hwy 13A</i><br><i>County Hwy 16, Hope Road</i> | Reduce the possibility of damage& losses due to flooding by hurricanes, severe storms, Nor'easters | Both  | Mayor and Council   | NJDOT<br>County Hwy.<br>Administrator<br>Boro. Engineer<br>Environmental Committee          | 2009                                    | Low<br>(administrative)                   | Budget  |
| High     | Action 4.H μ Implement identified storm water recharge, rate or volume projects identified in Regional Storm water Management Plans to decrease flash\$ in streams during/after storm events  | Reduce the possibility of damage& losses due to flooding by hurricanes, severe storms, Nor'easters | Both  | Mayor and Council   | Administrator<br>Boro. Engineer<br>Environmental Committee.                                 | 2010                                    | Unknown                                   | Budget  |

*Please attach additional pages as needed.*



| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| High     | Action 9.D Consider adopting a steep slope ordinance, if one is not already in place, to regulate development on these higher risk areas.<br><i>Water Street/Jumping Brook</i> | Reduce the possibility of damage and losses due to landslides.   | Both  | Mayor and Council   | Administrator Boro. Engineer Environmental Committee.                                       | 2009                                    | Low (administrative)                      | Local Funds   |
| Medium   | Action 2.B - Create a mitigation outreach program that helps residents prepare for disasters   | Build and support local capacity to enable the public to prepare for, respond to and recover from disasters. | Both  | Mayor and Council   | Administrator OEM   | 2009                                    | Unknown                                   | Budget Grants   |
| Medium   | Action 2.E μ Support and Fund Community Response Team (CERT) programs that also include a mitigation component<br><br>NOTE: Borough has existing CERT Program                  | Build and support local capacity to enable the public to prepare for, respond to and recover from disasters  | Both  | Mayor and Council   | Administrator OEM CERT  | 2009                                    | Unknown                                   | Budget Grants   |

*Please attach additional pages as needed.*





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|----------|--|--|---|---|---|---|---|---|
| Medium   | Action 10.A μ In consultation with NJFFS, local fire service, develop mapping of wildland/urban interface areas.   | Reduce the possibility of damage and losses due to wildfires | Both  | Mayor and Council<br>NJFFS  | NJFFS<br>Administrator<br>OEM<br>Fire Service   | 2010                                    | Unknown                                   | Budget<br>Grants  |
| Medium   | Action 10.C - In consultation with NJFFS, local fire service, review local EOPs for possible wildfire components regarding Fire-Rescue, Alert Warning and Communications | Reduce the possibility of damage and losses due to wildfires | Both  | Mayor and Council<br>NJFFS  | NJFFS<br>Administrator<br>OEM<br>Fire Service   | 2010                                    | Unknown                                   | Budget<br>Grants  |
| Medium   | Action 10.E μ Initiate a public outreach program for homeowners to reduce the possibility of damage and losses due to wildfires  | Reduce the possibility of damage and losses due to wildfires | Both  | Mayor and Council<br>NJFFS  | NJFFS<br>Administrator<br>OEM<br>Fire Service   | 2010                                    | Unknown                                   | Budget<br>Grants  |
| Medium   | Action 10.I μ Mitigation for streets. Highways and roads that provide key fire access and fuel breaks.   | Reduce the possibility of damage and losses due to wildfires | Both  | Mayor and Council<br>NJFFS  | NJFFS<br>Administrator<br>OEM<br>Fire Service   | 2010                                    | Unknown                                   | Budget<br>Grants  |

*Please attach additional pages as needed.*





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|----------|--|--|---|---|---|---|---|---|
| Low      | Action 11.A μ Promote (or purchase, for critical facilities) NOAA weather radios.                          | Reduce the possibility of damage and losses due to winter storms | Both  | Mayor and Council   | Administrator<br>OEM  | 2010                                    | Unknown                                   | Budget<br>Grants  |
| Low      | Action 11.B μ Educate residents about driving in winter storms and handling winter-related health effects. | Reduce the possibility of damage and losses due to winter storms | Both  | Mayor and Council   | Administrator<br>OEM  | 2010                                    | Unknown                                   | Budget<br>Grants  |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Union Beach

| Priority | Mitigation Action  | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both.) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---|--|---|---|---|---|---|
| 1        | Raise the Roadway Elevation of the Flood Prone Section of Florence Avenue                      | Reduces the possibility of damage and losses due to flooding. | Existing and new infrastructure; Emergency Services  | Borough Engineer  | Capital Improvement   | 2010                                    | \$315,000                                 | State<br>Federal<br>County<br>Local                     |
| 2        | Raise the Roadway Elevation of the Flood Prone Section of Jersey Avenue                        | Reduces the possibility of damage and losses due to flooding. | Existing and new infrastructure; Emergency Services  | Borough Engineer  | Capital Improvement   | 2012                                    | \$250,000                                 | State<br>Federal<br>County<br>Local                     |
| 3        | Raise the Roadway Elevation of the Flood Prone Intersection of Spruce Street and Center Street | Reduces the possibility of damage and losses due to flooding. | Existing and new infrastructure; Emergency Services  | Borough Engineer  | Capital Improvement   | 2010                                    | \$285,000                                 | State<br>Federal<br>County<br>Local                     |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Union Beach

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| 4        | Relocation of Harris Garden Fire Co. Building to a site outside of Flood Prone Area. | Reduces the possibility of damages to Emergency Facilities due to flooding           | Emergency Services  | Mayor and Borough Council Office of Emergency Management<br>Fire Department                                   | Capital Improvement   | 2015                                    | \$400,000                                 | State<br>Federal<br>County<br>Local                     |
| 5        | Raise the Elevation of the Flood Prone Scholer Park Parking Lot.                     | Reduces the possibility of damage and losses due to flooding                         | Existing and New infrastructure;<br>Emergency Services<br>Recreation                        | Borough Engineer  | Capital Improvement   | 2010                                    | \$210,000                                 | State<br>Federal<br>County<br>Local                     |
| 6        | Maintenance of the existing Shore Protection Features (Bulkhead, Beach Area)         | Reduces the possibility of damage and losses due to Coastal Erosion and Wave Action. | Existing and New Infrastructures;<br>Emergency Services<br>Recreation                       | Borough Engineer;<br>Public Works   | Capital Improvement   | Once Every Two Years                    | \$75,000 Annually                         | State<br>Federal<br>County<br>Local                     |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Union Beach \_\_\_\_\_

| Priority | Mitigation Action  | What hazards does the action address?                         | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---|---|---|---|---|---|---|
| 7        | Cleaning and Maintenance of the Existing Storm Drains and Inlets | Reduces the Possibility of Damages and Losses Due to Flooding | Existing and New Infrastructures; Emergency Services  | Public Works  | Public Works Maintenance of Infrastructure  | Once Every 12 Mths.                     | \$25,000 Annually                         | Local   |
| 8        | Cleaning and Maintenance of Receiving Waterways and Creeks       | Reduces the Possibility of Damages and Losses Due to Flooding | Existing and New Infrastructures; Emergency Services  | Public Works<br>County Mosquito Commission  | Public Works Maintenance of Infrastructure  | Once Every 12 Mths.                     | \$25,000 Annually                         | County  |
| 9        | Installation of Flood Warning Signs in Flood Prone Areas         | Reduces the Possibility of Damages and Losses Due to Flooding | Emergency Services  | Office of Emergency Management  | Emergency Services  | 2010                                    | \$15,000                                  | Local   |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) \_\_\_\_\_ Borough of Union Beach \_\_\_\_\_

| Priority | Mitigation Action  | What hazards does the action address?  | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| 10       | Upgrade Borough's Existing Warning System  | Reduces the Possibility of Damages and Losses Due to Flooding, Coastal Erosion and Wave Action | Emergency Services  | Office of Emergency Management, Police Department   | Emergency Services  | 2012                                    | \$50,000                                  | Local   |
| 11       | Upgrade Emergency Generator at Police Headquarters                                       | Reduces the Possibility of Damages and Losses Due to Flooding, Coastal Erosion and Wave Action | Emergency Services  | Office of Emergency Management, Police Department   | Emergency Services  | 2012                                    | \$50,000                                  | Local   |
| 12       | Implementation of the Army Corps of Engineers Shore Protection and Flood Control Project | Reduces the Possibility of Damages and Losses Due to Flooding, Coastal Erosion and Wave Action | Existing and New Infrastructure; Emergency Services   | Mayor and Borough Council, ACOE, NJDEP  | Capital Improvement   | 2015                                    | \$1.6 Million                             | State<br>Federal<br>County<br>Local                     |

*Please attach additional pages as needed.*



## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Township of Upper Freehold

| Priority | Mitigation Action  | What hazards does the action address?                        | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|--|---|---|---|---|---|---|
| #1 High  | Action 4D-<br>Ellisdale Road-Installation of sheet piling, increase culvert size, construct ditching and reconstruction 700 LF roadway at Bridge U-52.             | Flooding due to inland flooding, hurricanes and nor'easters. | Both  | Township Committee  | Township Engineer   | 2010 or 1 year after funding available. | \$550,000                                 | Grants and local funding                                |
| #2 High  | Action 4F-<br>Cleaning of sediment and debris and removal of fallen trees which block waterways. Examples area at Bridges U-15 Breza Road and U-52 Ellisdale Road. | Flooding due to fallen trees caused by storm drainage.       | Both  | Township Committee  | Office of Emergency Management, Township Engineer and Environmental Commission              | 2010 or 1 year after funding available  | \$150,000                                 | Grants and local funding                                |
| #3 High  | Action 4D-<br>Roadway bank protection at Bridge U-34 Sharon Station Road; Bridge U-53 Provinceline Road; and Bridges U-47 & 48 Walnsmill Road                      | Roadway erosion caused by flooding                           | Both  | Township Committee  | Township Engineer   | One year after funding available.       | \$150,000                                 | Grants and local funding                                |

*Please attach additional pages as needed.*



# WALL TOWNSHIP IMPLEMENTATION STRATEGY

(Name of Jurisdiction) Wall Township

| Priority | Mitigation Action  | What hazards does the action address? | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|--|---------------------------------------|---|---|---|---|---|---|
| Medium   | Action 10. A In conjunction with NJFFS and local Forest Fire Warden, develop mapping of wildland / urban interface areas.  | Wildfire                              | Both  | Township Committee  | Office of Emergency Management in conjunction with NJFFS                                    | 2008                                    | Low - administrative                      | Budget  |
| Medium   | Action 2.B Create a mitigation outreach program. Specifically by using a website and media outreach to assist residents prepare for disasters.   | All hazards                           | Both  | Township Committee  | Office of Emergency Management in conjunction with other emergency service annexes          | 2008                                    | Low - administrative                      | Budget  |
| High     | Action 10.B Develop inventory of addresses for route alerting during wildfire emergencies that require public warning and information. Specifically by implementing reverse telephone notification system. | Wildfire and all hazards              | Both  | Office of Emergency Management, Police Department   | Office of Emergency Management, Police Department   | 2008                                    | \$15,000 annual                           | Budget  |

*Please attach additional pages as needed.*



# WALL TOWNSHIP

| Priority | Mitigation Action   | What hazards does the action address?                                 | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|----------|---|---|---|---|---|---|---|---|
| High     | Action 3.B Develop and adopt an emergency water allocation strategy to be implemented during severe drought.  | Drought   | Both  | Township Committee  | Office of Emergency Management, Dept. of Public Works, Police Department                    | 2010                                    | Low-Administrative                        | Budget  |
| High     | Action 4. H. Reduce the possibility of flooding at Wreck Pond by implementing stormwater retention projects identified by the Wreck Pond Regional Stormwater Management Committee in Subregion 12 watershed | Flooding due to inland and coastal floods, hurricanes, and Noreasters | Both  | Township Committee and Township Engineer  | Office of emergency Management with other municipalities, county, and state                 | 2013                                    | Unknown High                              | Grants, local with surrounding municipalities           |
|          |   |   |   |   |   |   |   |   |

*Please attach additional pages as needed.*





## IMPLEMENTATION STRATEGY

(Name of Jurisdiction) **Borough of West Long Branch**

| Priority                     | Mitigation Action   | What hazards does the action address?        | What community assets will be impacted by the action?<br>(indicate: Existing, New, or Both) | Who is responsible for implementing the action? (List Title, Department, or Office – please do not use names) | Identify an existing local planning mechanism through which the action will be implemented. | What is the target date for completion? | How much is the action estimated to cost? | What funding source(s) will be used to fund the action? |
|------------------------------|---|--|---|---|---|---|---|---|
| <b>Priority 1-<br/>High-</b> | Drainage remediation project servicing West Long Branch, Long Branch, Monmouth County property and Monmouth University property | Hurricane & T.S-H<br>Nor'easter-H<br>Flood-L | Roadways and property in two municipalities and University property                         | Boro Engineer   | Storm Water management Plan   | 2010                                    | \$1.5 Mil                                 | State, County, And Local                                |
| <b>Priority 2-<br/>Med</b>   | Remediation of Turtle Mill Floodway<br>-Stream Cleaning   | Hurricane & T.S-H<br>Nor'easter-H<br>Flood-L | State and County Roadways in three municipalities   | Boro Engineer   | Storm Water management Plan   | 2010                                    | Under \$1 Mil                             | State, County and Local                                 |
|                              |   |  |   |   |   |   |   |   |

*Please attach additional pages as needed.*