# 9.16 Town of East Hampton

This section presents the jurisdictional annex for the Town of East Hampton.

## 9.16.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

| Primary Point of Contact | Alternate Point of Contact |
|---|---|
| Bruce A. Bates, Emergency Preparedness Coordinator<br>159 Pantigo Road<br>East Hampton, NY 11937<br>Phone: 631-324-1736<br>E-mail: scdfc905@optonline.net | Kimberly Shaw, Environmental Protector Director<br>159 Pantigo Road<br>East Hampton, NY 11937<br>Phone: 631-324-0496<br>Email: kshaw@ehamptonny.gov |

## 9.16.2 Municipal Profile

This section provides a summary of the community.

### Population

According to the U.S. Census, the 2010 population for the Town of East Hampton was 21457.

### Location

The Town of East Hampton is the easternmost town on Long Island. It encompasses a land area of 70 square miles on Long Island's South Fork and has almost 70 miles of waterfront on three sides. The Town is bordered by the Town of Southampton to the West, the Atlantic Ocean to the East and South, and Gardiner's Bay to the North.

### Brief History

The Town of East Hampton was established in 1788 by the State as a separate entity vested with independent taxing and debt authority. The first settlement within the present jurisdiction of the Town was made in 1639, but organized settlement did not take place until 1648. The original name of the Town was Maidstone and fourteen years later became known as East Hampton.

### Governing Body Format

The legislative power of the Town is vested in the Town Board, which consists of five people, including the Town Supervisor.

### Growth/Development Trends

The Town of East Hampton continues to experience a modest increase in its year-round population, and the seasonal population shows larger increases. The significant change from off-season to in-season population is attributable to second homeowners, renters, & tourists. The seasonal population taxes the emergency services assets & general infrastructure town-wide. Our seasonal guests have significantly changed the complexion of East Hampton, and the cost of living here has become an issue for full-time residents. Measures have already been taken to provide affordable housing for senior residents and the work force employees, and plans to construct the new Green Hollow Affordable Housing subdivision have been approved. The Town, in an effort to retain open space and maintain the rural character of East

Hampton, regularly purchases properties that will remain vacant, or forego further development. The Town's abilities to manage and deal with future growth and development are illustrated in the Capability Assessment of this annex.

The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five (5) years in the municipality. Refer to the map in Section 9.16.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.16-1. Growth and Development**

| Property Name | Type (Residential or Commercial) | Number of Structures | Location (address and/or Parcel ID) | Known Hazard Zone* | Description / Status |
|---|---|---|---|---|---|
| St. Michael's Senior Citizen Affordable Apts. | Res. | 40 Apts. | 486 Montauk Highway, Amagansett | None | Complex opened in 2013 & is mostly occupied |
| "555" Complex | Res. | 79 units | 555 Montauk Highway, Amagansett | None | Proposed complex on 24 acres, subject to planning approval etc. |

* *Only location-specific hazard zones or vulnerabilities identified. With the exception of flood, wildlife, landslides, and land subsidence/sinkholes, all locations in Suffolk County are exposed to the natural hazards addressed in this plan.*

## 9.16.3 Natural Hazard Event History Specific to the Municipality

Suffolk County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The table below presents a summary of natural events that have occurred to indicate the range and impact of natural hazard events in the community. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2008, refer to Volume I, Section 5.0 of this plan.

**Table 9.16-2. Hazard Event History**

| Dates of Event | Event Type | FEMA Declaration # (If Applicable) | County Designated? | Summary of Damages/Losses |
|---|---|---|---|---|
| March 18-19, 2013 | Winter Storm | N/A | N/A | Yes, costs not determined |
| March 6-8, 2013 | Winter Storm | N/A | N/A | Yes, costs not determined |
| February 8-9, 2013 | Severe Winter Storm and Snowstorm | DR-4111 | Yes - PA (Public Assistance) | Yes, $394,122.00 |
| December 26-27, 2012 | Nor'Easter | N/A | N/A | Yes, costs not determined |
| November 7, 2012 | Nor'Easter | N/A | N/A | Yes, costs not determined |
| October 27-November 8, 2012 | Hurricane Sandy | DR-4085 | Yes – IA (Individual Assistance) and PA | Yes, $1,964,501.46 |
| August 26 – September 5, 2011 | Hurricane Irene | EM 3328<br>DR 4020 | Yes – IA and PA | Yes, costs not determined |
| December 11-31, 2008 | Severe Winter Storm | EM 3299<br>DR 1827 | No | Yes, costs not available |

*EM* *Emergency Declaration (FEMA)*
*FEMA* *Federal Emergency Management Agency*
*DR* *Major Disaster Declaration (FEMA)*
*IA* *Individual Assistance*
*N/A* *Not applicable*
*PA* *Public Assistance*

## 9.16.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Town of East Hampton. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

### Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for Town of East Hampton.

**Table 9.16-3. Hazard Risk/Vulnerability Risk Ranking**

| Hazard Ranking | Hazard type | Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard [a, c, e] | Probability of Occurrence[b] | Risk Ranking Score (Probability x Impact) |
|---|---|---|---|---|
| 5 | Coastal Erosion | RCV in CEHA: $646,964,308 | Frequent | 21 |
| 10 | Drought | Damage estimate not available | Rare | 3 |
| 7 | Earthquake | 500-Year MRP: $5,170,138<br>2,500-Year MRP: $73,580,755 | Rare | 16 |
| 9 | Expansive Soils | Damage estimate not available | Rare | 6 |
| 6 | Flood | 1% Annual Chance: $125,364,697<br>0.2% Annual Chance: $252,373,192 | Frequent | 18 |
| 8 | Groundwater Contamination (natural) | Damage estimate not available | Occasional | 14 |
| 4 | Hurricane | Category 1 SLOSH: $246,921,879<br>Category 2 SLOSH: $1,045,826,802<br>Category 3 SLOSH: $1,739,885,090<br>Category 4 SLOSH: $2,372,615,112 | Occasional | 36 |
| 8 | Infestation | No measurable impact to property | Occasional | 14 |
| 1 | Nor'Easter | 100-Year RCV: $720,975,178<br>500-Year RCV: $5,868,525 | Frequent | 54 |
| 3 | Severe Storm | 100-Year RCV: $720,975,178<br>500-Year RCV: $5,868,525 | Frequent | 48 |
| 2 | Severe Winter Storm | 1% of GBS: $94,596,537<br>5% of GBS: $472,982,683 | Frequent | 54 |
| 8 | Shallow Groundwater Flooding | Damage estimate not available | Occasional | 14 |
| 9 | Wildfire | Estimated RCV in Interface/Intermix: $12,409,281,550 | Rare | 6 |

*a. Building damage ratio estimates based on FEMA 386-2 (August 2001)*

*b. The valuation of general building stock and loss estimates was based on the custom inventory developed for Suffolk County and probabilistic modeling results and exposure analysis as discussed in Section 5.*

*c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages and the Tribes within the Town boundary.*

*d. Frequent = Hazard event that occurs more frequently than once in 10 years; Occasional = Hazard event that occurs from once in 10 years to once in 100 years, Rare = Hazard event that occurs from once in 100 years to once in 1,000 years; None = Hazard event that occurs less frequently than once in 1,000 years*

*e. The estimated potential losses for Nor'Easter and Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.*

*CEHA = Coastal Erosion Hazard Area*
*GBS = General building stock*
*MRP = Mean return period*
*RCV = Replacement cost value*

## National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

### Table 9.16-4. NFIP Summary

| Municipality | # Policies (1) | # Claims (Losses) (1) | Total Loss Payments (2) | # Rep. Loss Prop. (1) | # Severe Rep. Loss Prop. (1) | # Policies in 100-year Boundary (3) | # Polices in 500-Boundary (3) | # Policies Outside the 500-year Flood Hazard (3) |
|---|---|---|---|---|---|---|---|---|
| Town of East Hampton | 3,009 | 761 | $6,979,997 | 40 | 2 | 433 | 119 | 2,457 |

*Source: FEMA Region 2, 2014*
*Note (1): Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of January 31, 2014. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents the number of claims closed by January 31, 2014.*
*Note (2): Total building and content losses from the claims file provided by FEMA Region 2.*
*Note (3): The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file. FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.*

## Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

### Table 9.16-5. Potential Flood Losses to Critical Facilities

| Name | Type | Exposure | | Potential Loss from 1% Flood Event | | | Potential Loss from 0.2% Flood Event | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1% Event | 0.2% Event | Percent Structure Damage | Percent Content Damage | Days to 100-Percent[(2)] | Percent Structure Damage | Percent Content Damage | Days to 100-Percent[(2)] |
| Montauk | Airport | A | X | | | | | | |
| NYS DOT East Hampton | DPW/DOT | | X | | | | 0.0 | 0.0 | |
| Marketspan Combustion Turbine Generator | Electric Power Facility | A | X | | | | | | |
| Montauk-9u | Electric Power Substation | A | X | | | | | | |
| East Hampton Commercial Dock | Ferry | V | X | | | | | | |
| East Hampton Commercial Dock | Ferry | | X | | | | | | |
| Montauk | Rail | A | X | | | | | | |
| East Hampton Harbor Master/Marine | SC Gov't Facility | V | X | | | | | | |
| Wainscott School | School | | X | | | | 6.2 | 33.6 | 480 |

*Source: HAZUS-MH 2.1*
*Note: T = Town; V = Village.*
*x = Facility located within the 0.2-percent annual chance flood boundary.*
*Please note it is assumed that wells have electrical equipment and openings are three-feet above grade.*
*(1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).*
*(2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type.*

## Other Vulnerabilities Identified by Municipality

None identified at this time.

## 9.16.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

### Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the municipality.

**Table 9.16-6. Planning and Regulatory Tools**

| Tool / Program (code, ordinance, plan) | Do you have this? (Y/N) | Authority (local, county, state, federal) | Dept. /Agency Responsible | Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.) |
|---|---|---|---|---|
| Building Code | Y | Local and County (1) | EHT Building Dept. | International Building Code, 2003 |
| Zoning Ordinance | Y | Local and County (1) | EHT Zoning Board & Planning Dept. | Zoning (Ch 255) initially adopted 1957, frequently amended and updated. |
| Subdivision Ordinance | Y | Local and County (1) (2) | EHT Zoning Board & Planning Dept. | Open Space Preservation (Ch 193); Subdivision of Land (Ch 220) |
| Special Purpose Ordinances | Y | Local | EHT Town Board & Planning Board | Flood Hazard Overlay District (§ 255-3-40 to 47) |
| Growth Management | Y | Local | EHT Town Board, Planning, Zoning, Natural Resources Depts., & EH Town Trustees | Airport (Ch 75)<br>Community Preservation (Ch 112)<br>Environmental Quality Review (Ch 128)<br>LWRP Consistency Review (Ch 150)<br>Community Preservation Plan, August 2003<br>Overlay Districts (§ 255-3-10) |
| Floodplain Management / Basin Plan | N | | | |
| Stormwater Management Plan/Ordinance | Y | Local and County | EH Town Board & Natural Resources Dept. | The Town is in the process of developing a Stormwater Management Plan in accordance with the New York State MS4 Phase II implementation of the Clean Water Act. Progress has been made on the plan and Inter-Municipal agreements with other Towns are set for approval within 30 days |
| Comprehensive Plan / Master Plan | Y | Local | EH Town Board & Planning Board | Town of East Hampton Comprehensive Plan, most recently adopted May 2005 |
| Capital Improvements Plan | Y | Local | EH Town Board | Reviewed Annually |
| Site Plan Review Requirements | Y | Local | EHT Planning Board | Site Plan Review (§ 255-6) |
| Habitat Conservation Plan | Y | Local | EH Town Board, Planning, Natural Resources Depts., & Town Trustees | Nature Preserves (Ch 182)<br>Open Space Preservation (Ch 193);<br>Water Recharge Overlay District (§ 255-3-60)<br>Harbor Protection Overlay District (§ 255-3-70)<br>Protection of Natural Resources (§ 255- |
| Economic Development | Y | County | Suffolk Co. | |

| Tool / Program (code, ordinance, plan) | Do you have this? (Y/N) | Authority (local, county, state, federal) | Dept. /Agency Responsible | Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.) |
|---|---|---|---|---|
| Plan | | | | |
| Emergency Response Plan | Y | Local and County | Suffolk DFRES, EH Town Emergency Preparedness Dept., EHTPD, EH Town Chief's Assoc. | Hurricane/Coastal Storm Plan, 1985-updated regularly<br>Emergency Plan & Emergency Medical Services Disaster Plan for the Town of East Hampton, NY 1989<br>Emergency Action Plans, 2001-updated as needed. Plans have been updated/amended since recent Hurricanes, Nor'Easters, & severe snow events |
| Shoreline Management Plan | Y | Local, County, and State | NYSDEC, Suffolk Co., EH Town Board, Natural Resources, Planning, & Building Depts., and Town Trustees | Coastal Erosion Overlay District (§ 255-3-80)<br>Protection of Natural Resources (§ 255-4-10)<br>Wetland setbacks (§ 255-4-30)<br>Coastal bluff & barrier dune setbacks (§ 255-4-40) |
| Post Disaster Recovery Plan | Y | Local and County | Suffolk DFRES & EHT Emerg. Prep. Dept. | As contained in the Hurricane/Coastal Storm Plan. Updated/amended 2013 |
| Post Disaster Recovery Ordinance | Y | Local and County | Suffolk & EHT Planning/Building Depts. | As contained in the Local Waterfront Revitalization Plan |
| Real Estate Disclosure req. | N | N | | Are considering this requirement |
| Other (e.g. steep slope ordinance, local waterfront revitalization plan) | Y | Local | EH Town Board, Planning, Zoning, and Building Depts. | Local Waterfront Revitalization Plan adopted Q4 2007. Adopted after info for initial Mitigation Plan was submitted |
| NFIP Flood Damage Protection Ordinance | N | N | | Are considering this type of ordinance |
| Freeboard | Y | State | | State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other |
| Cumulative Substantial Damages | N | N | | |
| Coastal Erosion Control Districts | N | N | | Working on a plan for the Montauk area |

## Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of East Hampton.

### Table 9.16-7. Administrative and Technical Capabilities

| Staff/ Personnel Resources | Available (Y or N) | Department/ Agency/Position |
|---|---|---|
| Planner(s) or Engineer(s) with knowledge of land development and land management practices | Y | East Hampton Planning Department |
| Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure | Y | Town Engineer<br>Chief Building Inspector |
| Planners or engineers with an understanding of natural hazards | Y | East Hampton Planning Department<br>East Hampton Natural Resources Department |
| NFIP Floodplain Administrator | Y | Chief Building Inspector |
| Surveyor(s) | Y | Outside Contractor by contract |

| Staff/ Personnel Resources | Available (Y or N) | Department/ Agency/Position |
|---|---|---|
| Personnel skilled or trained in "GIS" applications | Y | Office of Information Technology, GIS Supervisor<br>East Hampton Planning Department<br>East Hampton Natural Resources Department |
| Scientist familiar with natural hazards in the municipality. | Y | East Hampton Planning Department<br>East Hampton Natural Resources Department |
| Emergency Manager | Y | Emergency Preparedness Coordinator (1) |
| Grant Writer(s) | Y | Grant Applications Specialist (1) |
| Staff with expertise or training in benefit/cost analysis | N | EHT hired a full-time CPA for the position 2009 |
| Professionals trained in conducting damage assessments | | |

## Fiscal Capability

The table below summarizes financial resources available to the Town of East Hampton.

### Table 9.16-8. Fiscal Capabilities

| Financial Resources | Accessible or Eligible to Use (Yes/No/Don't Know) |
|---|---|
| Community Development Block Grants (CDBG) | Yes, with income restrictions |
| Capital Improvements Project Funding | Yes |
| Authority to Levy Taxes for specific purposes | Yes |
| User fees for water, sewer, gas or electric service | No |
| Impact Fees for homebuyers or developers of new development/homes | No |
| Incur debt through general obligation bonds | Yes |
| Incur debt through special tax bonds | Yes |
| Incur debt through private activity bonds | No |
| Withhold public expenditures in hazard-prone areas | Yes |
| Mitigation grant programs | Yes. NYS grants; have used in past |
| Other | |

## Community Classifications

The table below summarizes classifications for community program available to the Town of East Hampton.

### Table 9.16-9. Community Classifications

| Program | Classification | Date Classified |
|---|---|---|
| Community Rating System (CRS) | NP | |
| Building Code Effectiveness Grading Schedule (BCEGS) | 4/3 | 2004 |
| Public Protection | 4/9 | 2003 |
| Storm Ready | YES | 2003 |
| Firewise | NP | |

*N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.*

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's

capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at http://www.isomitigation.com/ppc/0000/ppc0001.html
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at http://firewise.org/

## National Flood Insurance Program

The following section provides details on the National Flood Insurance Program (NFIP) as implemented within the municipality:

NFIP Floodplain Administrator: Tom Prieato, Chief Building Inspector

### Program and Compliance History

Town of East Hampton joined the NFIP on September 30, 1976 , and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated September 25, 2009. The Town is currently considering a Flood Damage Prevention Ordinance.

As of January 31, 2014 there are 3,009 policies in force, insuring $968,772,300 of property with total annual insurance premiums of $3,484,072. Since January 31, 2014, 761 claims have been paid totaling $6,979,997. As of January 31, 2014 there are 40 Repetitive Loss and 2 Severe Repetitive Loss properties in the community.

The community is currently in good standing in the NFIP and has no outstanding compliance issues. Town of East Hampton has completed Community Assistance Visits (CAV), with the most recent visit completed in 2012. Additional input and communication from FEMA would be greatly welcomed.

### Loss History and Mitigation

As of January 31, 2014 there are 40 Repetitive Loss and 2 Severe Repetitive Loss properties in the community.

Approximately 12 homes were damaged in Hurricane Sandy, with one home being completely washed away. All homeowners who sustained damaged are interested in mitigation. The source of funding is unknown as there has not been much activity. Some have used flood insurance and paid out of pocket at this time. No homes received Substantial Damage determinations. Substantial Damage Estimates are interpreted and then reviewed for code compliance.

### Planning and Regulatory Capabilities

The Town is currently considering a Flood Damage Prevention Ordinance.

Floodplain management regulations and ordinances meet FEMA and New York State requirements. In 2009 an additional ordinance was adopted where foundations elevated more than 4 feet because of flood risk flood did not count as a story. In the past if more than 4 feet of the foundation was out of the ground, it counted as a story.

### Administrative and Technical Capabilities

The Chief Building Inspector is identified as the local NFIP Floodplain Administrator, currently Tom Prieato, for which floodplain administration is an auxiliary duty.

In addition to the NFIP FPA, the community has supplementary staff for which NFIP is an auxiliary duty; personnel include the Planning Department.

Duties and responsibilities of the NFIP Administrator are permit review, inspections, appraisers assessment of damage, maintaining records in "GOVERN" system for flood-related claims.

No homes received Substantial Damage determinations. Substantial Damage Estimates are interpreted and then reviewed for code compliance.

The Village is working on a more thorough process of inventorying flood-damaged properties.

Tom Prieato feels he is adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator. Tom Prieato is not certified in floodplain management, however attends regular continuing education programs for code enforcement.

### Public Education and Outreach

In the Town of East Hampton the following educational and/or outreach activities related to the NFIP: personal meetings with property owners, permit review, inspections, appraisers assessment of damage, maintaining records in "GOVERN" system for flood-related claims.

### Actions to Strengthen the Program

Barriers to running an effective floodplain management program in the Town of East Hampton include the current height restrictions code on homes in the floodplain. Currently, the pyramid law is used for homes to become flood compliant and it is very strict. Relaxing this code and granting variances would alleviate much stress for homeowners. Receiving further information on the Community Rating System and additional professional training on floodplain management is something being considered.

## Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

**Land Use Plans –** maintain the Comprehensive Plan, growth management plan, habitat management plan, local waterfront revitalization plan, and shoreline management plan to minimize risk in hazard areas. Updates will include a review of the HMP to ensure that hazard areas are identified in the respective plans.

**Land Use Plans** – continue to provide input into the Suffolk County Economic Development Plan. Information on hazard areas in the Town, described in the HMP, will be incorporated into the economic development plan.

**Building Code, Ordinances, and Enforcement** – review planned development against the hazard areas identified in the HMP during zoning and subdivision reviews.

**Building Code, Ordinances, and Enforcement** – enhance existing codes to reduce the impact of natural hazards on structures & property

**Building Code, Ordinances, and Enforcement** – maintain NFIP flood damage prevention ordinance.

**Stormwater Management Plan** – Planned flood mitigation actions and their intended effect will be reflected in the Stormwater Management Plan.

**Floodplain Management** - attend a CRS workshop and consider participation in incentive-based programs such as CRS

**Emergency Response Plan** – the Town developed and adopted an Emergency Response Plan in order to outline in detail the functions and responsibilities of each Town department during a large scale natural or man-made emergency, so that response to emergencies lessens the severity of a disaster on property and the population. This plan includes many pre-event actions that both mitigate disaster losses, and directly supports recovery efforts.

**Emergency Response Plan** - work with DOI, ACOE, NYSDEC, Suffolk County to develop a breach closure plan, focusing on the three locations in East Hampton that are likely to breach (Napeague Beach/Harbor area - location of RR and underground cable, Downtown Montauk, Ditch Plains in Montauk).

**Emergency Response Plan** - consider the development of a post –disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans. The debris management plan will incorporate estimates of debris generated by different hazards, as discussed in the risk assessment portion of the HMP.

**Public Education and Outreach** – Develop and implement a public education/outreach program to increase participation in the NFIP, understanding that some of these activities will earn credit under CRS leading to premium discounts. This program should be coordinated with the Villages. One element of this program should be to increase public awareness of their proximity to identified flood-prone areas (e.g. maps on local website, www.floodsmart.gov). Maintain and expand, as needed, the public education program, which includes hazard preparedness meetings, printed materials, & segments on local TV & radio. Establish a method of hazard education for local businesses, to help reduce property loss, lessen economic impact, and ensure continuity of operation.

## 9.16.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

### Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2008 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.

**Table 9.16-10. Past Mitigation Initiative Status**

| Description | Status | Review Comments |
|---|---|---|
| TEH-1: Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. | Continuous | Numerous permits have been issued by EHT to allow residents to retrofit their structures/property to reduce future losses |
| TEH-2: Consider participation in incentive-based programs such as CRS. | No Progress / Unknown | Concept is still a desired action, lack of staffing to pursue the concept |
| TEH-3: Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 | Continuous | Action moved to Capability |
| TEH-4: Strive to maintain compliance with, and good-standing in the National Flood Insurance program. | Continuous | Action moved to Capability |
| TEH-5: Continue to develop, enhance, and implement existing emergency plans. | Continuous | Action moved to Capability. Numerous plans have been enhanced and implemented since 2008 |
| TEH-6: Create/enhance/ maintain mutual aid agreements with neighboring communities. | Continuous | Action moved to Capability. Agreements have been maintained and new IMA's & MOU's are pending |
| TEH-7: Support County-wide initiatives identified in Section 9.1 of the County Annex. | | |
| TEH-8: Consider the development of a post – disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans. | Continuous | Action moved to Capability. Components of both plans have been developed and tested; multiple changes of personnel have prevented finalization of written plans |
| TEH-9: Support future LIDAR survey efforts to basemap/inventory coastal resources (beaches, sand, dunes, etc.), and monitor/measure change after coastal erosion events. | Continuous | Still support the efforts |
| TEH-10: Develop data collection and organization program to improve the documentation of hazard events. This may include recording high-water marks, documenting beach erosion, compiling and archiving loss data. | Continuous | Reduction in EHT personnel has hindered this action. EHT is considering the possibility of some engineered beaches |
| TEH-11: Convert data collected on vulnerable populations (add other types of data) into more widely useable and distributable forms, including GIS and electronic spreadsheet (Excel) formats. This effort should be coordinated with EHV and SH to develop consistent, comprehensive datasets. | Continuous | Action moved to Capability. EHT IT personnel have been working on GIS layering of important data and distributing the info via cartography. EHV has also been compiling critical emergency resource data and creating GIS layers. We are working on methods to share all this data more readily with those that need it |

| Description | Status | Review Comments |
|---|---|---|
| TEH-12: Consider relocation of the Ft. Pond Electric Substation out of flood prone area | No Progress / Unknown | The facility is owned by LIPA and while there have been discussions with EHT, no action has been taken yet |
| TEH-13: Retrofit the Emergency Operations Center with storm shutters & wind resistant roofing materials | 50% Completed | Motorized shutters have been installed on the glass entry doors |
| TEH-14: Retrofit the East Hampton High School (ARC designated shelter) with impact resistant windows/shutters, & install generator | 70% Completed | Addition/partial renovation was completed 2010, which included the installation of a generator system and impact resistant windows |
| TEH-15: Work with DOI, ACOE, NYSDEC, Suffolk County to develop a breach closure plan, focusing on the three locations in East Hampton that are likely to breach (Napeague Beach/Harbor area - location of RR and underground cable, Downtown Montauk, Ditch Plains in Montauk). | In Progress / Continuous | Action moved to Capability. The ACOE has studied the Montauk area and offered potential solutions which are being considered by EHT. EHT is still working on a plan for Napeague, as there was a partial breach during Sandy |
| TEH-16: Include beach nourishment & replenishment priorities of five South Shore Towns in the Fire Island to Montauk Point Reformulation Study (FIMP) | Continuous | Action moved to Capability. EHT was not overwhelmed with the information presented to date and are continuing to request more action |
| TEH-17: Develop and implement a public education/outreach program to increase participation in the NFIP, understanding that some of these activities will earn credit under CRS leading to premium discounts. This program should be coordinated with the Villages. One element of this program should be to increase public awareness of their proximity to identified flood-prone areas (e.g. maps on local website, www.floodsmart.gov). | Continuous | Action moved to Capability. Reduced EHT staffing has hampered this action, but public education on the topic has continued, and the Suffolk County storm surge mapping tool has been added to the EHT website, along with FloodSmart links. |
| TEH-18: Consider relocation of the DPW substation, near the Ft. Pond substation, out of flood prone area. | No Progress / Unknown | Action is still a consideration but funding has been problematic since the original plan |
| TEH-19: Develop a post-disaster Damage Assessment program. This program will identify and engage a sufficient number of qualified damage assessors, provide or obtain training as necessary, and develop tools and protocols for managing data and preparing claims. | 80% Complete | Action moved to Capability. A Damage Assessment Team was established and a plan devised, however, reductions and changes in EHT personnel require additional work |
| TEH-20: Work with various state and regional stakeholders (NWS, NOAA, NYSEMO, others) to improve Hazard early warning and notification systems. | Continuous | Action moved to Capability. EHT continues to be NOAA/NWS StormReady. EHT also encourages residents to register for the Suffolk County Code Red system, and the information is available on the EHT website |
| TEH-21: Identify access roads to higher risk wildfire areas, and develop and implement a maintenance program to assure access (e.g. maintain defensible space). | Continuous | Access roads have been mapped by EHT IT using GIS. Have not completed a maintenance program to date |
| TEH-22: Establish a network of medical professionals willing to provide care at an Urgent Medical Facility in E.H. during events that isolate E.H. from the nearest hospital. | Continuous | Doctors and Nurses have been identified and have agreed to assist in the Montauk area. Still working with Southampton Hospital & EH Healthcare Foundation to locate Medical personnel for the remainder of EHT |
| TEH-23: Maintain and expand, as needed, the public education program, which includes hazard preparedness meetings, printed materials, & segments on local TV & radio. | Continuous | Action moved to Capability. Have continued public education activities and appointed a Citizen Emergency Preparedness Committee, which has helped with development, printing, and distribution of EHT emergency preparedness brochures |

| Description | Status | Review Comments |
|---|---|---|
| TEH-24: Continue program to acquire open space, with emphasis on high-hazard areas (e.g. unimproved waterfront land) through the Community Preservation Fund. | Continuous | CPF Program continues to exist, the recent economic downturn has hampered the success of the program |
| TEH-25: Support and upgrade the existing Town-wide Emergency Communications & Alerting System, including enhancements to reduce response times | Continuous | Action moved to Capability. EHT and EHV have worked with, and supported the East End Ambulance Coalition efforts to comply with Suffolk County EMS response time criteria. EHT is exploring ways to assist with the dramatic increase in EMS calls during the Summer season |
| TEH-26: Retrofit E.H. Town Governmental Critical Facilities with storm resistant features (shutters, generators, etc.) | Continuous / In Progress | Generators have been installed for the Montauk PD Precinct and the Montauk communications tower. Generators have been purchased for installation at the Montauk Play House and Noyac communications tower, awaiting issuance of permits |
| TEH-27: Annual ICS & NIMS Training for Town Response Personnel to become/remain compliant | Continuous | Action moved to Capability. ICS/NIMS training classes for EHT personnel were presented in 2012 and are continuing |
| TEH-28: Continue to study and install drainage systems to alleviate street & property flooding | Continuous | EHT worked with NYS to install a drainage system to eliminate road and property flooding in Hansom Hills, off Route 114. EHT Highway Dept. has also installed numerous catch basins along EHT roadways. |
| TEH-29: Develop a plan to protect against invasive species to reduce storm debris, & exclude and eradicate invasive insects, disease and weeds | No Progress / Unknown | Action moved to Capability. Reduced EHT staffing and personnel changes have impacted this effort |
| TEH-30: Perform a feasibility study for, and possibly implement, the concept of burying existing overhead utility wires along Old Montauk Highway (in Montauk)., to complement the environment, and help reduce damage during wind events. | In Progress | EHT has submitted a grant application to study the feasibility of this project |
| TEH-31: Establish a method of hazard education for local businesses, to help reduce property loss, lessen economic impact, and ensure continuity of operation | Continuous | Action moved to Capability. Discussions with local Chambers of Commerce and the EHT Business Alliance have been well received, reduced EHT staffing has delayed progress |
| TEH-32: Establish a mechanism to review proposed mitigation projects, prior to and throughout implementation, to ensure that all possible objectives are met in the most cost effective manner | No Progress / Unknown | Reduced EHT staffing and changes of personnel have delayed this effort |
| TEH-33: Investigate, and possibly implement, incentives for residents who own property in high risk areas & demonstrate smart land use to avoid loss | No Progress / Unknown | Reduced EHT staffing and changes of personnel have delayed this effort |
| TEH-34: Consider enhancement of existing codes to reduce the impact of natural hazards on structures & property | No Progress / Unknown | EHT supports this action, but reduced EHT staffing and changes of personnel have delayed this action |

## Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

Since the initial Suffolk County Hazard Mitigation Plan was adopted in 2008, the Town of East Hampton has addressed one new mitigation measure and four completed projects.

The proposed projects include:

- Assess and prioritize the options available to construct a coastal barrier for Downtown Montauk, and implement as funding becomes available

The completed projects include:

- Coastal flooding study for the South side of Downtown Montauk. This project focused on finding solutions to flooding issues seen in Downtown Montauk.
- A grant application was submitted to allow for the construction of a seawall along Gerard Drive. This road is susceptible to repetitive losses both to the road infrastructure and private structures.
- A joint project with NYSDOT and East Hampton Town Highway Department has been implemented along Route 114. The project is expected to severely reduce roadway and private property flooding during severe rain events.
- Individual residents have submitted applications to harden portions of their coastal properties. The applications are reviewed for code compliance and approved if compliant.

## Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of East Hampton identified mitigation initiatives they would like to pursue in the future. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Table 9.16-11 identifies the municipality's updated local mitigation strategy.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.16-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

## Table 9.16-11. Proposed Hazard Mitigation Initiatives

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-1 (previously TEH-1) | Assess and prioritize the options available to retrofit, purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority, and implement as funding becomes available. | Existing | Flood, Nor'Easter, Hurricane, Severe Storm | 2, 7, 13 | Town | High | High | FEMA HMA Grant and Municipality operating budget for cost share | Long-term DOF | Medium | SIP |
| TEH-2 (previously TEH-2) | Attend a CRS workshop and consider participation in incentive-based programs such as CRS. | New & Existing | Flood, Nor'Easter, Hurricane, Severe Storm | 1,2,3,7,13 | NFIP Floodplain Administrator | Medium | Low | Town Budget | Short | High | LPR |
| TEH-3 (previously TEH-9) | Support future LIDAR survey efforts to basemap/inventory coastal resources (beaches, sand, dunes, etc.), and monitor/measure change after coastal erosion events. | NA | Flood, Hurricane, Nor'Easter, Severe Storm Erosion | 1,2,3, | NYSDOS NYSDEC NYSEMO FEMA & OTHER AGENCIES | High | High | SUFFOLK CO. NYSDOS NYSDEC NYSSEMO FEMA | Long Term | Medium | LPR |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-4 (previously TEH-10) | Develop data collection and organization program to improve the documentation of hazard events. This may include recording high-water marks, documenting beach erosion, compiling and archiving loss data. | NA | All Hazards | 1, 3, 7 | County/Town | Medium | Medium | General Fund, County, FEMA Hazard Mitigation Grant Funding | Ongoing-Long Term | Medium | LPR |
| TEH-5 (previously TEH-12) | Assess and prioritize the options available to relocate the Ft. Pond Electric Substation out of flood prone area and implement as funding becomes available. | Existing | Nor'Easter, Severe Storms, Hurricane, Flooding | 2,3,4,16 | National Grid, LIPA, Keyspan | High | High | National Grid, LIPA, Keyspan | Long Term | Low | LPR, SIP |
| TEH-6 (previously TEH-13) | Assess and prioritize the options available to retrofit the Emergency Operations Center with storm shutters & wind resistant roofing materials, and implement as funding becomes available. | Existing | Nor'Easter, Severe Storms, Hurricane | 2,16 | E.H. Town | High | Low | General Fund, FEMA Hazard Mitigation Grants | Short | High | LPR, SIP |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-7 (previously TEH-14) | Assess and prioritize the options available to retrofit the East Hampton High School (ARC designated shelter) with impact resistant windows/shutters, & install generator. Implement as funding becomes available. | Existing | Nor'Easter, Severe Storm, Winter Storm, Hurricane | 2,16 | E.H. School District | High | High | E.H. School District, NYSEMO, FEMA Hazard Mitigation Grants | Long | Medium | LPR, SIP |
| TEH-8 (previously TEH-18) | Assess and prioritize the options available to relocate the DPW substation, near the Ft. Pond substation, out of flood prone area, and implement as funding becomes available. | Existing | Nor'Easter, Hurricane, Flooding | 2,3,16 | E.H. Town | High | High | E.H. Town | Long | Low | LPR, SIP |
| TEH-9 (previously TEH-21) | Develop and implement a maintenance program to assure access (e.g. maintain defensible space) to high-risk wildfire areas. | New and Existing | Severe Storm, Wildfire | 3, 8, 13 | NYSDEC, E.H. Town | Medium | Medium | NYSDEC, FEMA Hazard Mitigation Grants, E.H. Town | Short-ongoing | High | LPR |
| TEH-10 (previously TEH-22) | Establish a network of medical professionals willing to provide care at an Urgent Medical Facility in E.H. during events that isolate E.H. from the nearest hospital. | NA | Nor'Easters, Severe Storms, Winter Storms, Hurricane, Flooding | 2,3 | E.H. Town, Southampton Hospital, E.H. Healthcare Foundation | High | Low | E.H. Town, Southampton Hospital, E.H. Healthcare Foundation | Short-ongoing | High | LPR |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-11 (previously TEH-24) | Assess and prioritize the options available to acquire open space, with emphasis on high-hazard areas (e.g. unimproved waterfront land), and implement as funding becomes available. | Existing | Nor'Easters, Hurricane, Coastal Erosion, Flooding | 2,3,5,6, | E.H. Town | High | High | Community Preservation Fund | Long-ongoing | Low | LPR |
| TEH-12 (previously TEH-26) | Assess and prioritize the options available to retrofit E.H. Town Governmental Critical Facilities with storm resistant features (shutters, generators, etc.), and implement as funding becomes available. | Existing | Nor'Easters, Hurricane, Severe Storms, Winter Storms | 2,16 | E.H. Town | Medium | Medium | FEMA Hazard Mitigation Grants, General Fund | Long-ongoing | High | LPR, SIP |
| TEH-13 (previously TEH-28) | Assess and prioritize the options available to install drainage systems to alleviate street & property flooding, and implement as funding becomes available. | New and Existing | Nor'Easters, Severe Storms, Winter Storms, Hurricane, Flooding, Shallow Groundwater | 2,3,15 | E.H. Town, NYSDEC, NYSDPW | High | High | Capital Fund, NYSDEC, NYSDPW | Long-ongoing | Medium | LPR, SIP |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-14 (previously TEH-30) | Assess and prioritize the options available to bury existing overhead utility wires along Old Montauk Highway (in Montauk), to complement the environment, and help reduce damage during wind events; implement as funding becomes available. | NA | Nor'Easters, Severe Storms, Winter Storms, Hurricane | 2,16 | LIPA/Keyspan/ National Grid/ Verizon/ Cablevision | High | High | LIPA/ Keyspan/ National Grid/ Verizon/ Cablevision/ NYS | Long | Low | LPR, SIP |
| TEH-15 (previously TEH-33) | Assess and prioritize the options available to provide incentives for residents who own property in high risk areas and demonstrate smart land use to avoid loss, and implement as funding becomes available. | New and Existing | All Hazards | 1,2,3,6 | E.H. Town | Medium | Low | General Fund | Short-ongoing | High | LPR, SIP |
| TEH-16 (previously TEH-34) | Enhance existing codes to reduce the impact of natural hazards on structures & property | New and Existing | All Hazards | 1,3,4 | E.H. Town | Medium | Low | General Fund | Short-ongoing | High | LPR |
| TEH-17 | Sandy HMGP LOI #991 - Gerard Drive Causeways #1 and #2 Storm Mitigation | Existing | Flood, Hurricane, Nor'Easters, Severe Storm | 2, 9, 13, 14, 15, 16 | See Action Worksheet (TEH-17 - LOI 991 – 031814) | | | | | | |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-18 (similar to TEH-15) | Assess and prioritize the options available to construct a coastal barrier for Downtown Montauk, and implement as funding becomes available. | New and Existing | Coastal Erosion, Flood, Hurricane, Nor'Easters, Severe Storm | 15, 16 | E.H. Town, Army Corp., NYSDEC | High | High | E.H. Town, Army Corp. FEMA Grants | Long | Medium | LPR, SIP, NRP |
| TEH-19 (similar to TEH-16) | Assess and prioritize options to replenish beaches and minimize beach erosion, and implement as funding becomes available. | N/A | Coastal Erosion, Flood, Hurricane, Nor'Easters, Severe Storm | 3, 5, 6 | E.H. Town, NYSDEC | High | High | E.H. Town, FEMA Grants | Long, ongoing | Medium | LPR, NRP |
| TEH-20 (NEW) | Construct temporary sand dunes where walkways and other paths cross from the shoreline to developed areas. | New and Existing | Coastal Erosion, Flood, Hurricane, Nor'Easters, Severe Storm | 3, 5 | E.H. Town, NYSDEC | Medium | Medium | E.H. Town | Short-ongoing | Medium | NRP |
| TEH-21 (NEW) | Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines. | | | | | | | | | | |
| | See above. | Existing | Severe Storm; Severe Winter Storm; Hurricane; Nor'Easter | 3, 7, 13, 14, 15, 16 | PSEG, County | High | Low-Medium | Local | Short | High | LRP |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-22 (NEW) | Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically:<br>• Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program)<br>• Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities)<br>• County-Wide Debris Management Plan<br>• Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners)<br>• Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build regional, county and local capabilities to manage seismic risk, both pre- and post-disaster)<br>• Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan). | | | | | | | | | | |
| | See above | New and Existing | All Hazards | All Objectives | Suffolk County, as supported by relevant local department leads, | High (comprehensive improvements mitigation and risk-reduction capabilities) | Low-Medium (locally) | Local (staff resources) | Short | High | All |

*Notes:*
**Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.*

*Acronyms and Abbreviations:*
*DPW Department of Public Works*
*FEMA Federal Emergency Management Agency*
*FMA Flood Mitigation Assistance grant program*
*HMA Hazard Mitigation Assistance grant program (including FMA, HMGP, PDM)*
*HMGP Hazard Mitigation Grant Program*
*N/A Not applicable*
*NFIP National Flood Insurance Program*
*NYSOEM New York State Office of Emergency Management*
*PDM Pre-Disaster Mitigation grant program*
*PSEG Public Service Electric and Gas (formerly LIPA)*

*Costs:*
*Where actual project costs have been reasonably estimated:*
*Low = < $10,000*
*Medium = $10,000 to $100,000*

*High = > $100,000*

*Where actual project costs cannot reasonably be established at this time:*
*Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.*
*Medium = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.*
*High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.*

*Benefits:*
*Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:*
*Low = < $10,000*
*Medium = $10,000 to $100,000*
*High = > $100,000*

*Where numerical project benefits cannot reasonably be established at this time:*
*Low = Long-term benefits of the project are difficult to quantify in the short term.*
*Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.*
*High = Project will have an immediate impact on the reduction of risk exposure to life and property.*

*Timeline:*
*Short = 1 to 5 years*
*Long Term = 5 years or greater*
*OG = On-going program*
*DOF = Depending on funding*

*Mitigation Category:*

- *Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.*
- *Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.*
- *Natural Systems Protection (NRP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.*
- *Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.*

## Table 9.16-12. Summary of Prioritization of Actions

| Mitigation Action / Project Number | Mitigation Action/Initiative | Life Safety | Property Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-1 (previously TEH-1) | Assess and prioritize the options available to retrofit, purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-2 (previously TEH-2) | Attend a CRS workshop and consider participation in incentive-based programs such as CRS. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |
| TEH-3 (previously TEH-9) | Support future LIDAR survey efforts to basemap/inventory coastal resources (beaches, sand, dunes, etc.), and monitor/measure change after coastal erosion events. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-4 (previously TEH-10) | Develop data collection and organization program to improve the documentation of hazard events. This may include recording high-water marks, documenting beach erosion, compiling and archiving loss data. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-5 (previously | Assess and prioritize the options available to | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Low |

| Mitigation Action / Project Number | Mitigation Action/Initiative | Life Safety | Property Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-12) | relocate the Ft. Pond Electric Substation out of flood prone area and implement as funding becomes available. | | | | | | | | | | | | | | | | |
| TEH-6 (previously TEH-13) | Assess and prioritize the options available to retrofit the Emergency Operations Center with storm shutters & wind resistant roofing materials, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |
| TEH-7 (previously TEH-14) | Assess and prioritize the options available to retrofit the East Hampton High School (ARC designated shelter) with impact resistant windows/shutters, & install generator. Implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-8 (previously TEH-18) | Assess and prioritize the options available to relocate the DPW substation, near the Ft. Pond substation, out of flood prone area, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Low |
| TEH-9 (previously TEH-21) | Develop and implement a maintenance program to assure access (e.g. maintain defensible space) to high-risk wildfire areas. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |

| Mitigation Action / Project Number | Mitigation Action/Initiative | Life Safety | Property Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH-10 (previously TEH-22) | Establish a network of medical professionals willing to provide care at an Urgent Medical Facility in E.H. during events that isolate E.H. from the nearest hospital. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |
| TEH-11 (previously TEH-24) | Assess and prioritize the options available to acquire open space, with emphasis on high-hazard areas (e.g. unimproved waterfront land), and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Low |
| TEH-12 (previously TEH-26) | Assess and prioritize the options available to retrofit E.H. Town Governmental Critical Facilities with storm resistant features (shutters, generators, etc.), and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |
| TEH-13 (previously TEH-28) | Assess and prioritize the options available to install drainage systems to alleviate street & property flooding, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-14 (previously TEH-30) | Assess and prioritize the options available to bury existing overhead utility wires along Old Montauk Highway (in Montauk), to complement the | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Low |

| Mitigation Action / Project Number | Mitigation Action/Initiative | Life Safety | Property Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | environment, and help reduce damage during wind events; implement as funding becomes available. | | | | | | | | | | | | | | | | |
| TEH-15 (previously TEH-33) | Assess and prioritize the options available to provide incentives for residents who own property in high risk areas and demonstrate smart land use to avoid loss, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |
| TEH-16 (previously TEH-34) | Enhance existing codes to reduce the impact of natural hazards on structures & property | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | High |
| TEH-17 | Sandy HMGP LOI #991 - Gerard Drive Causeways #1 and #2 Storm Mitigation | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 9 | High |
| TEH-18 (similar to TEH-15) | Assess and prioritize the options available to construct a coastal barrier for Downtown Montauk, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-19 (similar to TEH-16) | Assess and prioritize options to replenish beaches and minimize beach erosion, and implement as funding becomes available. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Medium |
| TEH-20 (NEW) | Construct temporary sand dunes where walkways and other paths cross | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 9 | Medium |

| Mitigation Action / Project Number | Mitigation Action/Initiative | Life Safety | Property Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | from the shoreline to developed areas. | | | | | | | | | | | | | | | | |
| TEH-21 (NEW) | Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 12 | High |
| TEH-22 (NEW) | Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 13 | High |

*Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.*

- *= Prioritization remained the same as the 2008 HMP.*

## 9.16.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

## 9.16.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of East Hampton that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of East Hampton has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

## 9.16.9 Additional Comments

None at this time.

**Figure 9.16-1. Town of East Hampton Hazard Area Extent and Location Map 1**

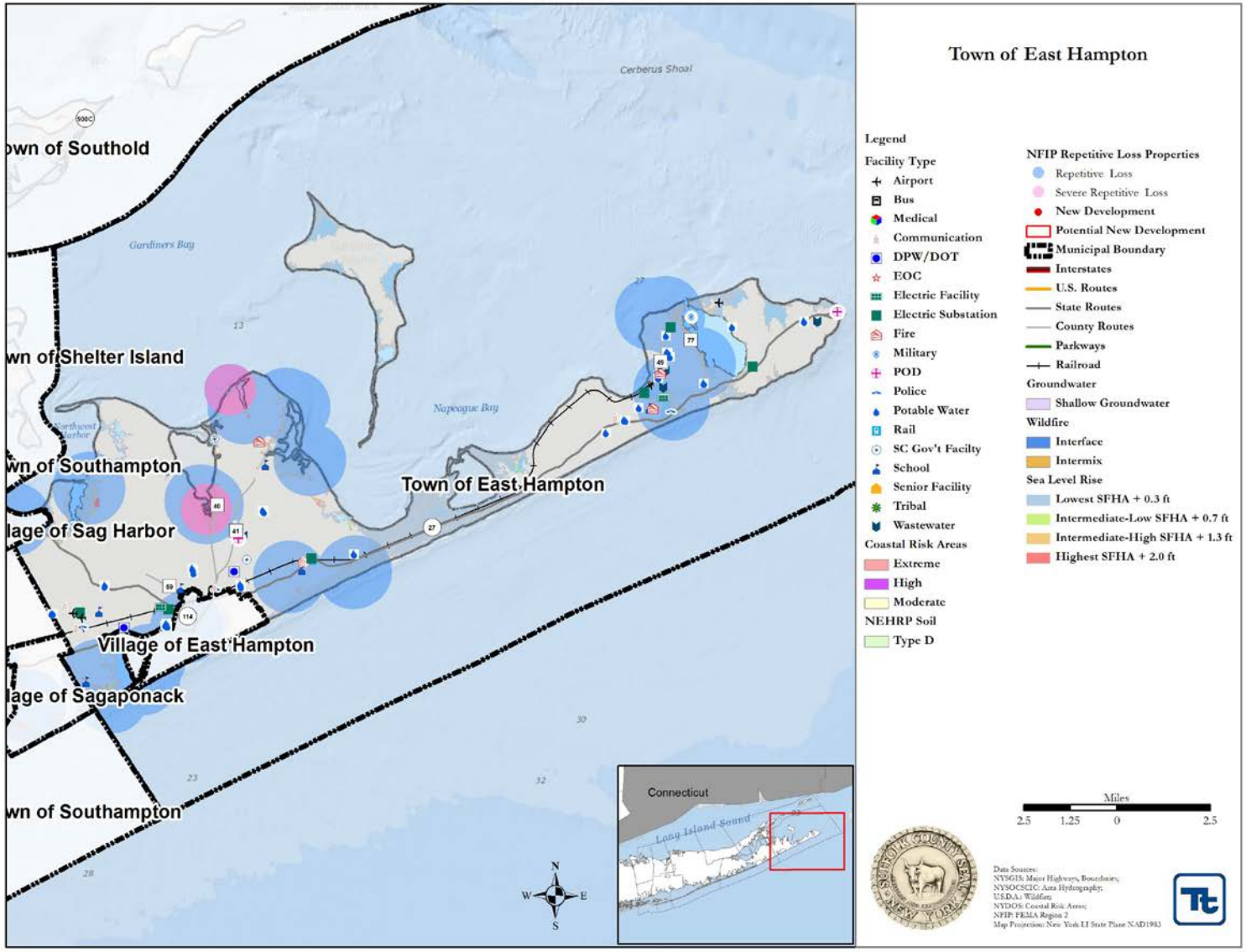
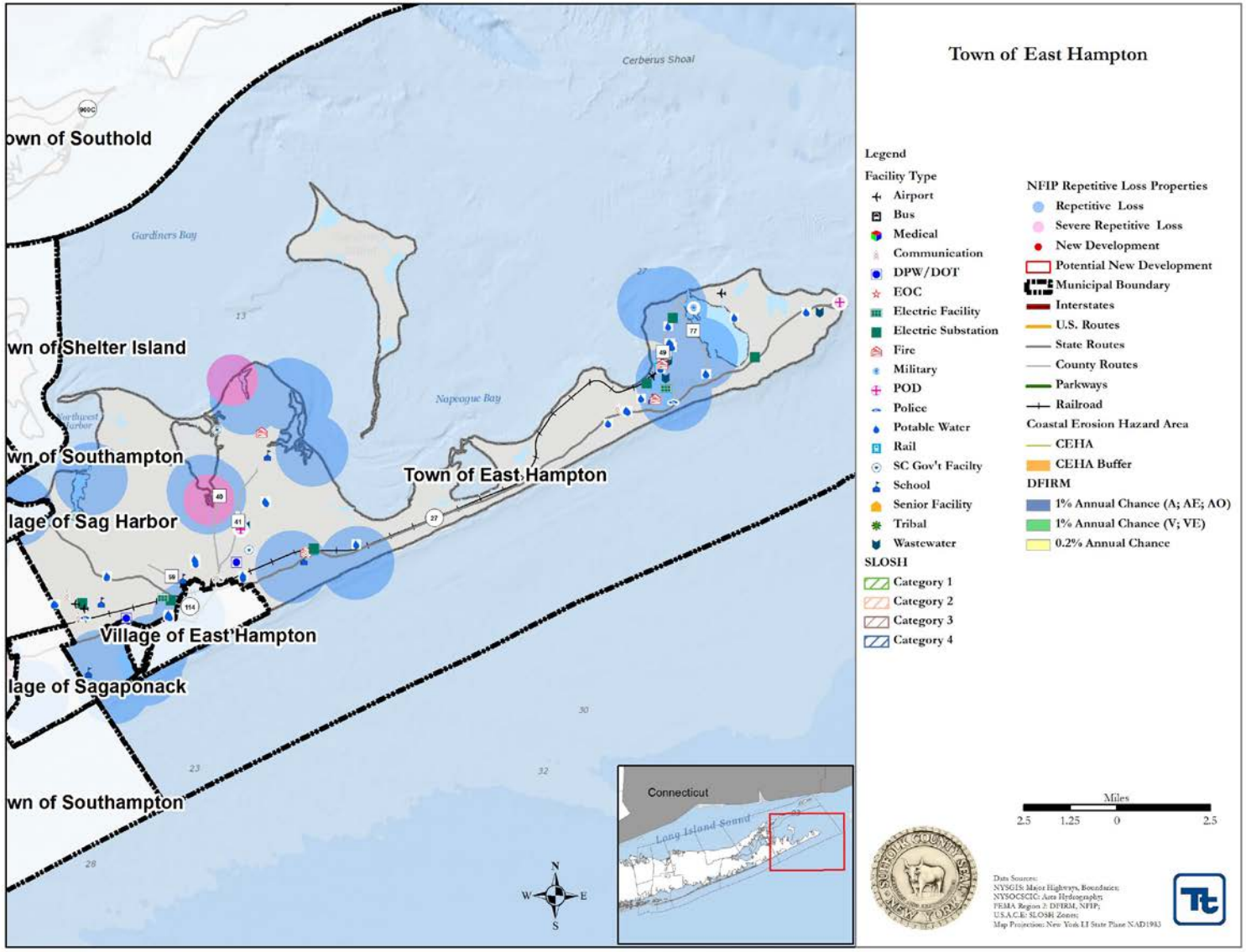


**Figure 9.16-2. Town of East Hampton Hazard Area Extent and Location Map 2**



# Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

**Name of Jurisdiction:** Town of East Hampton
**Number:** Sandy HMGP LOI #: 991
**Mitigation Action/Initiative:** Gerard Drive Causeways #1 and #2 Storm Mitigation Project

| Assessing the Risk | |
|---|---|
| **Hazard(s) addressed:** | Flood, Hurricane, Nor'Easters, Severe Storm |
| **Specific problem being mitigated:** | Gerard Drive is located on a beach spit of land separating Gardiner's Bay and Accabonac Harbor, which is approximately 1.5 miles long. The roadway provides transportation, emergency services, electricity, communication and public water supply to over 65 residences. Gerard Drive has a long history (dating back to the 1930's) of washing out at the first (northern) and second (southern) causeway. The worst and most frequent damage occurs at the second causeway<br>The grade elevation of Gerard Drive ranges from +2 to +10 feet above mean sea level. The elevation of Causeway #2 ranges form 4-6ft MSL and the top of the roadway at the "bridge crossing" is 5.5ft MSL.<br>Large and powerful wind generated waves created during nor'easter and tropical storms wash across the narrow low beach, scouring and undermining the road. When storms occur during high tides, the road damage is significant, as recently experienced with Super storm Sandy; the roadway was destroyed and impassable.<br>DB Bennett, PE has prepared a study and project plan, which is available upon request. NYS DEC has approved this project. |
| **Evaluation of Potential Actions/Projects** | |
| **Actions/Projects Considered (name of project and reason for not selecting):** | 1. Roadway improvements to be constructed pending FEMA funding approval |
| | 2. Condemnation of area homes – not chosen due to cost |
| | 3. Do nothing – not chosen due to public health and safety risk for area homeowners |
| **Action/Project Intended for Implementation** | |
| **Description of Selected Action/Project** | Causeway #2 Mitigation<br><br>Causeway #2 (south) 1560 linear feet of road improvements including:<br>• Provide erosion control<br>• Deconstruct existing 870lf revetment , remove concrete slabs<br>• Remove existing asphalt<br>• Construct new 870lf 3-5 ton stone revetment rip-rap base<br>• Raise road with RCA fill avg. 1ft<br>• Reinforce roadway 4" asphalt pavement<br>• Concrete edge formwork; coated #4 bar; 5000 psi seawater tolerant<br>• Scrap sand and place on beach; creek side sand fill<br><br>The Town has recently repair the road to its original pre-Sandy state, and have submitted request for reimbursement to FEMA and have also requested funding for the future mitigation of Causeway #1 under the FEMA mitigation program. We have been inform |

| | |
|---|---|
| **Mitigation Action/Project Type** | Structure and infrastructure project – elevate coastal causeway and replace revetment to mitigate road washout and collapse during severe storms |
| **Objectives Met** | 2, 9, 13, 14, 15, 16 |
| **Applies to existing structures/infrastructure, future, or not applicable** | **Existing infrastructure** |
| **Benefits (losses avoided)** | Damages to Date: $361,797.39; Recent Damages: $126,046 |
| **Estimated Cost** | $455,474 |
| **Priority*** | *High* |
| **Plan for Implementation** | |
| **Responsible Organization** | Town of East Hampton |
| **Local Planning Mechanism** | Highway Improvement |
| **Potential Funding Sources** | HMGP; General Fund for Local Match |
| **Timeline for Completion** | Short |
| **Reporting on Progress** | |
| **Date of Status Report/ Report of Progress** | Date:<br>Progress on Action/Project: |

*** Refer to results of Prioritization (page 2)**

# Prioritization

**Number:** Sandy HMGP LOI #: 991
**Mitigation Action/Initiative:** Gerard Drive Storm Mitigation Project

| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
|---|---|---|
| **Life Safety** | 1 | Gerard Drive is the only ingress/egress for over 50 residences |
| **Property Protection** | 1 | Protect existing roadway |
| **Cost-Effectiveness** | 1 | Improvements will reduce the extent of future damages |
| **Technical** | 0 | N/A |
| **Political** | 0 | N/A |
| **Legal** | 1 | Avoidance of litigation if unable to provide emergency service |
| **Fiscal** | 1 | Mitigation of future damages |
| **Environmental** | 0 | N/A |
| **Social** | 0 | N/A |
| **Administrative** | 0 | N/A |
| **Multi-Hazard** | 1 | Emergency access and loss of property |
| **Timeline** | 1 | Within 24 months |
| **Agency Champion** | 1 | Strong local support in favor of this project |
| **Other Community Objectives** | 1 | |
| **Total** | 9 | |
| **Priority (High/Med/Low)** | high | |

# Guidance to Complete the Mitigation Action Worksheet

The following provides additional guidance on how to complete the Mitigation Project Capture Sheet. If you have any questions, please contact:

*Jonathan Raser*
*Tetra Tech, Inc., 1000 The American Road, Morris Plains, NJ 07950*
*973-630-8042 jonathan.raser@tetratech.com*

## Assessing the Risk

**Hazard(s) addressed:** Please enter the hazard(s) of concern you are mitigating. For this plan, the hazards of concern identified for the planning area are:

- Coastal Erosion
- Drought
- Earthquake
- Flooding (riverine, flash, coastal, and urban flooding)
- Groundwater Contamination (natural)
- Hurricane (tropical cyclones, including tropical storms and tropical depressions)
- Infestation (Asian Longhorn Beetle, Lyme Disease and West Nile Virus)
- Nor'Easters (extra-tropical cyclones, including severe winter low-pressure systems)
- Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)
- Severe Winter Storm (heavy snow, blizzards, ice storms)
- Shallow Groundwater
- Wildfire
- Expansive Soils

**Specific problem being mitigated:** Please describe the specific problem being mitigated.

## Evaluation of Potential Actions/Projects

**Actions/Projects Considered:** Please consider different options to mitigate the problem identified. One alternative is always to accept the current level or risk (tolerate the vulnerability/problem) by deciding to take no action at this time. If you choose to take no action, please complete the worksheet up to and including this section and this will be noted in the Plan.

Please include the name of the action considered and a brief reason as to why the action was not selected. The reasoning documents the consideration of these alternatives.

## Action/Project Intended for Implementation

**Description of the Selected Project:** Please provide a brief description of the selected project.

**Mitigation Action Type:**

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

- Structure and Infrastructure Project (SIP)- These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could

apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.

- Natural Systems Protection (NRP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.

- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

**Objectives:** Please insert the plan objectives (by number) that would be met if the action/project is implemented.

Plan Objectives:

1. Enhance the public's understanding of natural hazards, the risk they pose and ways to mitigate those impacts.

2. Retrofit, acquire, or relocate structures in high hazard areas, including but not limited to those known to be or subject to repetitive damages.

3. Continually improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types, and community development patterns and the measures needed to protect life safety at the local government level.

4. Strengthen codes so that new construction can withstand the impacts of natural hazards and lessen the impact of that development on the environment's ability to absorb the impact of natural hazards.

5. Seek projects that minimize or mitigate their impact on the environment including but not limited to: beach nourishment, stream channel restoration, and wetlands creation/preservation.

6. Consider providing incentives to promote wise land uses in known or identified high risk areas.

7. Establish a partnership among all levels of government and the business community to improve and implement methods to protect property.

8. Develop and implement wildfire mitigation and watershed. Protection strategies that reduce losses to wildlife habitat and protect water while also reducing damage to development.

9. Lower cost of flood insurance premiums through CRS program.

10. Protect against invasive species (noxious weeds) and exclude and eradicate invasive insects, disease, and weeds.

11. Implement water conservation measures, use reclaimed water, and increase groundwater usage, create surface water storage where appropriate.

12. Develop or improve early warning emergency response systems and evacuation procedures.

13. Work to lower emergency service response times, including improvement to transportation facilities.
14. Seek to integrate/coordinate all phases of Emergency Management within the planning area.

15. Seek mitigation projects that provide the highest degree of natural hazards protection at the least cost by considering projects that will mitigate the impacts of multiple hazards and/or leverage multiple funding sources.

16. Increase resilience of critical facilities and infrastructure.

17. Implement best stormwater management practices and seek to implement identified stormwater management activities and projects, including securing needed funding.

**Benefits:** Please describe the losses avoided when the project is implemented. This includes physical property damage; loss of function; road closing/detours; etc.

**Estimated Cost**:
Please provide the estimated cost or use the following ranges:
Low = < $10,000 Medium = $10,000 to $100,000 High = > $100,000

**Priority:** Please enter High/Medium/Low. Refer to the prioritization exercise and table, and instructions below.

## Plan for Implementation

**Potential Funding Source:** Please identify the anticipated funding source, which could be "Grant funding with local cost share". Sources may include federal, state and local sources.

**Timeline for Completion**: Short = 1 to 5 years. Long Term= 5 years or greater. OG = On-going program.

## Reporting on Progress

Note: This is for long term project progress review and need not be completed at this time.

Please provide a status update on the selected action/project. Along with this description, please indicate if the action/project is completed or not completed.

Actions which are not complete may be dropped with a rational provided (e.g., project deemed unfeasible…). Other incomplete actions should clearly be indicated as continuing; indicate percent complete, and identify any hurdles/obstacles/reasons for change in schedule. Even actions that have had no progress to date can be identified as continuing. For any action that is not yet complete and will continue, always consider modifying the action to promote implementation.

*Please note this report on progress should be done, at minimum, each year prior to the annual Planning Committee update outlined in the plan maintenance procedures in Section 7 (Plan Maintenance).*

# Guidance to Complete the Evaluation/Prioritization Table

Complete this table to help evaluate and prioritize each mitigation action being considered by your municipality. Please use these 14 criteria to assist in evaluating and prioritizing new mitigation actions identified. Specifically, for each new mitigation action, assign a numeric rank (-1, 0, or 1) for each of the 14 evaluation criteria in the provided table, defined as follows:

- 1 = Highly effective or feasible
- 0 = Neutral
- -1 = Ineffective or not feasible

Use the numerical results of this exercise to help prioritize your actions as "Low", "Medium" or "High" priority. Your municipality may recognize other factors or considerations that affect your overall prioritization; these should be identified in narrative in the Priority field of the worksheet.

The 14 evaluation/prioritization criteria are:

1. Life Safety – How effective will the action be at protecting lives and preventing injuries?

2. Property Protection – How significant will the action be at eliminating or reducing damage to structures and infrastructure?

3. Cost-Effectiveness – Are the costs to implement the project or initiative commensurate with the benefits achieved?

4. Technical – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.

5. Political – Is there overall public support for the mitigation action? Is there the political will to support it?

6. Legal – Does the jurisdiction have the authority to implement the action?

7. Fiscal - Can the project be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?

8. Environmental – What are the potential environmental impacts of the action? Will it comply with environmental regulations?

9. Social – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?

10. Administrative – Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?

11. Multi-hazard – Does the action reduce the risk to multiple hazards?

12. Timeline - Can the action be completed in less than 5 years (within our planning horizon)?

13. Local Champion – Is there a strong advocate for the action or project among the jurisdiction's staff, governing body, or committees that will support the action's implementation?

14. Other Local Objectives – Does the action advance other local objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of other plans and programs?