



9.13 Borough of Hopatcong

This section presents the jurisdictional annex for the Borough of Hopatcong.

9.13.1 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
Robert Haffner, OEM Coordinator 111 River Styx Road, Hopatcong, NJ 07843 Phone: (973) 934-1575 Email: rhaffner@hopatcong.org	Robert Elia, Borough Administrator 111 River Styx Road, Hopatcong, NJ 07843 Phone: (973) 770-1200 x4 Email: relia@hopatcong.org

9.13.2 Municipal Profile

Hopatcong Borough is located in southwestern Sussex County. It is bordered to the north by Sparta Township, to the east and south by Morris County, and to the west by Byram Township and Stanhope Borough. The Borough has a total area of 12.4 square miles. According to the U.S. Census, the 2010 population for the Borough of Hopatcong was 15,147. The following unincorporated communities are located within the Borough: Northwood, Byram Cover, Sperry Springs, Bonaparte Landing, Hopatcong Hills, and Hopatcong Heights. Streams in the Borough include: the Musconetcong River which makes up the eastern border of the Borough, and Lubbers Run. A portion of Lake Hopatcong is found in eastern Hopatcong Borough.

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the maps in Section 9.13.8 of this annex which illustrate the hazard areas along with the location of potential new development.

Table 9.13-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units/Structures	Location (address and/or Block & Lot)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to present					
None identified at the time of this plan update.					
Known or Anticipated Development in the Next Five (5) Years					
Atkins/Hopatcong LLC	Residential	35 Units	16 Lawrie Road	Flood: 1% Chance	Borough Approval-Waiting DEP
Greentree at Hopatcong LLC	Residential and Commercial	15 Units/4,660 Residential	446 River Styx Road	None at this time	Being Built
Airport Road Properties	Commercial	2 Warehouses	6 Sparta-Stanhope Road	None at this time	Borough Approval
Greentree at Hopatcong LLC	Residential	9 Units	468 River Styx Road	None at this time	Borough Approval

** Only location-specific hazard zones or vulnerabilities identified.*



9.13.3 Natural Hazard Event History Specific to the Municipality

Sussex 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. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.13-2. Hazard Event History

Date(s) of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
February 1-2, 2011	Winter Storm	N/A	N/A	Some roads closed due to power outages, CERT Team activated for warming stations.
March 11-12, 2011	Heavy Rain and Flooding	N/A	N/A	Roads flooded, CERT Team activated, Pump out of residential basements.
August 26 – September 5, 2011	Hurricane Irene	DR-4021	Yes	Multiple roads were closed in the Borough. There were also power outages and damages to residential properties. Some minor road culverts washed away. Protective measures were put in place and the roadways was repaired. Downed trees and power lines caused some damage as well. The Borough requested approximately \$34,000 from FEMA for public assistance.
September 28 – October 6, 2011	Remnants of Tropical Storm Lee	DR-4039	Yes	The Borough opened a warming shelter that was set up by CERT. There was minor property damage from fallen tree limbs, utility poles and wires. There were scattered power outages throughout the Borough as well. Some roads were closed. Other losses to the Borough included police overtime due to road closures and CERT team for warming shelter.
October 29, 2011	Severe Storm	DR-4048	Yes	Multiple power outages, Warming stations set-up, CERT Team deployed, FEMA asst. requested and granted. Approx. \$27,000 received.
October 26 – November 8, 2012	Hurricane Sandy	DR-4086	Yes	A regional shelter was set up at the high school. There were road closures, power outages, and closed businesses due to power outages. Sewage pumps were damaged, roadways were closed due to downed trees, poles and wires. Many homes were damaged or destroyed due to high winds that brought down trees and branches. Some commercial properties sustained minor damage from high winds. The Borough requested public assistance for an estimated \$150,000. Protective measures were put into place by the police, fire, EMS and CERT. The DPW and fire department conducted debris removal/cleanup.
September 12, 2013	Heavy Rain and Flash Flooding	N/A	N/A	Trees fallen, power outages, property damage, roads shutdown.



9.13.4 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 risk ranking methodology is presented in Section 5.3. However, each municipality had the opportunity to adjust the final ranking based on municipal feedback. The following summarizes the hazard vulnerabilities and their ranking in the Borough of Hopatcong. 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 the Borough of Hopatcong.

Table 9.13-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Dam Failure	Damage estimate not available	Occasional	24	Medium
Drought	Damage estimate not available	Frequent	30	Medium
Earthquake	100-Year GBS: \$0 500-Year GBS: \$1,045,562 2,500-Year GBS: \$17,280,283	Occasional	28	Medium
Flood	1% Annual Chance: \$10,897,002	Frequent	18	Medium
Geologic	Exposed to Carbonate Rock Areas: \$0	Occasional	12	Low
Hurricane	100-year MRP: \$639,558 500-year MRP: \$2,920,265 Annualized: \$30,693	Frequent	48	High
Nor'Easter	Damage estimate not available	Frequent	48	High
Severe Weather	100-Year MRP: \$639,558 500-year MRP: \$2,920,265 Annualized: \$30,693	Frequent	48	High
Severe Winter Weather	1% GBS: \$14,594,479 5% GBS: \$72,972,394	Frequent	51	High
Wildfire	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$10,988,987	Frequent	24	Medium
Hazardous Materials	Damage estimate not available	Frequent	36	High

Notes:

GBS = General building stock; MRP = Mean return period.

- The general building stock valuation is based on the custom inventory generated for the municipality and based on improved value.
- High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 15-30+
Low = Total hazard risk ranking below 15
- Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the estimated value of contents. Loss estimates for the flood and earthquake hazards represent both structure and contents. Potential flood loss estimates were generated using Hazus-MH 3.0 and the 2011 FEMA DFIRM for the 1-percent annual chance event. For the geologic and wildfire hazards, the improved value and estimated contents of buildings located within the identified hazard zones is provided.



National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Borough of Hopatcong.

Table 9.13-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 1% Flood Boundary (3)
Borough of Hopatcong	20	11	\$128,582	0	0	0

Source: FEMA, 2014

Note (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA and are current as of November 31, 2014 and are summarized by Community Name. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents claims closed by 11/31/2014.

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.

Note (4) 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

There are no critical facilities located in the FEMA 1% or 0.2% annual chance flood boundary.

Other Vulnerabilities Identified by Municipality

The hazard profiles in Section 5.0 have detailed information regarding each plan participant's vulnerability to the identified hazards. Further, mitigation projects have been identified that may more specifically detail vulnerabilities in the community. There are no additional vulnerabilities identified at this time.

9.13.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Education/Outreach and Community classification
- Self-Assessment of Capability
- 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 Borough of Hopatcong.

Table 9.13-5. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	Yes	Local	Land Use Board	2014 Master Plan Reexamination Report



Table 9.13-5. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Capital Improvements Plan	Yes	Local	Administration	% Year Plan
Floodplain Management/Basin Plan	No			
Stormwater Management Plan	No			
Open Space Plan	Yes	Local	Open Space	Open Space and Recreation Plan Update, 2011
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			
Economic Development Plan	No			
Comprehensive Emergency Management Plan	Yes	Local	OEM	Emergency Operation Plan
Emergency Response Plan	Yes	Local	OEM	Emergency Operation Plan
Post-Disaster Recovery Plan	Yes	Local	OEM	Emergency Operation Plan
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:	Yes	State and Local	Highlands Council	Borough of Hopatcong Highlands Environmental Resource Inventory, 2013
Regulatory Capability				
Building Code	Yes	Local, State	Borough	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Zoning	Chapter 242 – Zoning
Subdivision Ordinance	Yes	Local	Land Use Board	Chapter 209 – Subdivision of Land
NFIP Flood Damage Prevention Ordinance	Yes	Local, State, Federal	Construction	Chapter 124 – Floodplain
NFIP: Cumulative Substantial Damages	No			
NFIP: Freeboard	Yes	Local, State	Construction	N.J.A.C 7:13 – Flood Hazard Area Control Act
Growth Management Ordinances	Yes	State	Administration	Due to Highlands
Site Plan Review Requirements	Yes	Local, County, State	Land use Board	Chapter 191 – Site Plan Review
Stormwater Management Ordinance	Yes	Local, State	Engineer	Chapter 242 – Zoning, Stormwater Management Requirements
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Engineer	Chapter 203 – Storm Sewer System
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	No	State	Division of Consumer Affairs	N.J.A.C. 13:45A-29.1
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	Borough	Chapter 100 – Deer Management



Table 9.13-5. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
				Chapter 132 – Highlands Chapter 154 – Natural Area Preserve

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Borough of Hopatcong.

Table 9.13-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Land Use Board
Mitigation Planning Committee	Yes	OEM
Environmental Board/Commission	Yes	Environmental Committee
Open Space Board/Committee	Yes	
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	Yes	OEM
Mutual Aid Agreements	Yes	Fire Department/EMS/OEM
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Land Use Board, Engineers
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Borough Engineer
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer
NFIP Floodplain Administrator	Yes	Construction Official
Surveyor(s)	Yes	Borough Engineer
Personnel skilled or trained in GIS and/or Hazus-MH applications	No	
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	OEM
Grant Writer(s)	Yes	Millennium
Staff with expertise or training in benefit/cost analysis	Yes	Administrator
Professionals trained in conducting damage assessments	Yes	Construction

Fiscal Capability

The table below summarizes financial resources available to the Borough of Hopatcong.

Table 9.13-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes



Table 9.13-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	Yes
Other	No

Education/Outreach and Community Classifications

The table below summarizes education/outreach programs the community participates in and the classifications for community program available to the Borough of Hopatcong.

Table 9.13-8. Education/Outreach and Community Classifications

Program	Do you have/participate in this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	NP
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	6	Approx. 2013
Public Protection (ISO Fire Protection Classes 1 to 10)	No		
Storm Ready	No	NP	NP
Firewise	No	NP	NP
Disaster/Safety Programs in/for Schools	Yes	Tetra	4/1/15
Organizations with Mitigation Focus (advocacy group, non-government)	Yes	---	Approx. 2011
Public Education Program/Outreach (through website, social media)	Yes	Daycares, group homes, etc.	Approx. 2008
Public-Private Partnerships			

N/A = Not Applicable. NP = Not Participating. - = Unavailable.

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 Community Rating System (CRS) class applies to flood insurance while the Building Code Effectiveness Grading Schedule (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 1,000 feet of a creditable fire hydrant and is within five 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/>

Self-Assessment of Capability

The table below provides an approximate measure of the Borough of Hopatcong's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.13-9. Self-Assessment of Capability

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Fiscal Capability	X-Funding		
Community Political Capability		X	
Community Resiliency Capability		X	
Capability to Integrate Mitigation into Municipal Processes and Activities.		X	

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

William O'Connor, Construction Official

Flood Vulnerability Summary

The Borough does not maintain lists of properties that have been damaged by floods. The Borough has very few properties in the floodplain.

Resources

The Construction Official and Town Engineer (consultant) assume the responsibilities of floodplain administration within the Borough. They provide record keeping (maps) and damage assessments for the Borough. However, they do not provide any education or outreach regarding flood hazards/risk or flood risk reduction. The FPA indicated that there are currently no barriers to running an effective floodplain management program and feels adequately supported and trained. He would welcome any continuing education or certification trainings on floodplain management if offered in the County.

Compliance History

The Borough is currently in good standing with the NFIP and the last compliance audit was conducted in 2011.



Regulatory

The Borough's floodplain management ordinances meets the minimum set by FEMA and the State. The Borough does have additional ordinances that support floodplain management and meet NFIP requirements.

Community Rating System

The Borough of Hopatcong does not participate in the Community Rating System (CRS) program and has not considered joining.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

Land Use Planning: The Borough has a Land Use Board which reviews all applications for development and consider natural hazard risk areas in their review.

2014 Master Plan Reexamination: Every ten years municipalities are required to review their Master Plans. Commencing in 2014, the Planning Board undertook this review which is reflected in the 2014 Master Plan Reexamination Report and Master Plan Amendments, adopted in April of 2014. The Reexamination Report includes a review and recommendation for changes to the 2008 Master Plan Reexamination. The Report Identified a continued objective from that 2008 Master Plan Reexamination that is applicable to hazard mitigation:

1. Establish green belts and large tracts of open space.
2. Protect the natural features and resources of the community

The Borough identified a new mitigation action to utilize the HMP when updating the Comprehensive Master Plan. Refer to Table 9.13-11 for further information.

Environmental Resource Inventory 2013 and Open Space and Recreation Plan 2011: These documents provide a comprehensive inventory of the environmental sensitive lands and associated hazards.

Highlands: Hopatcong Borough is located in the New Jersey Highlands Region and is part of the Highlands Area. As such, the Borough is one of 88 municipalities protected by and subject to the provisions of the Highlands Water Protection and Planning Act that protects, enhances and restores Highland's natural resources. The Highlands Act requires that future land use in the Highlands Region be guided by the Regional Master Plan's Land Use Capability Map (LUCM) Series which includes tools to identify and protect the natural, scenic and other resources of the region. In supporting and complying with the Highlands Act, the Borough enacted amendments and updates to local zoning and development ordinances that ensure the protection of important resources and areas. The Highland Act creates three primary zones: a Protection Zone, a Conservation Zone and an Existing community Zone. Protection Zones are areas with the highest quality resources with extreme limitations on allowable development while Conservation Zones have significant agricultural lands and associated woodlands and environmental features with allowable development consisting primarily of agricultural uses. Existing Community Zones consist of areas of concentrated development with limited environmental constraints. These zones are overlaid with existing local zoning maps to identify and address



issues of public interest including watershed management, open space preservation, historic preservation, flood protection among others.

Regulatory and Enforcement (Ordinances)

The Borough has multiple chapters pertaining to the mitigation of hazards. These ordinances include the Flood Damage Prevention Chapter, Stormwater Control Chapter, and an Environmental Impact Statement requirement and an Environmentally Sensitive Areas section included in the Land Use Chapter. The Borough also has a chapter specific to the hazards associated with environmentally sensitive areas.

Chapter 124: Flood Management <http://www.ecode360.com/9568939>

The purpose of this chapter is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money for costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the alternate use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

Chapter 242-76: Stormwater Management

<http://www.ecode360.com/9573199?highlight=stormwater%20management,management,stormwater#9573199>

The purpose of the Stormwater Control chapter is to implement best management practices for stormwater management designed to promote the public health, safety and general welfare of the citizens.

Chapter 191-23: Environmental Impact Statement

<http://www.ecode360.com/9570292?highlight=environmentally,environmental#9570292>

The purpose of this section of the Chapter is to allow the Borough to assess the impact of a proposed development upon the natural environment, particularly with respect to potable water, pollution of all kinds, flooding and waste disposal.

Highlands: In addition, the Highlands Water Protection and Planning Act provides additional regulatory control over development within the Borough. While Major Highlands Development projects, as defined by the Highlands Act, still require local approvals, they must first receive a Highlands Resource Applicability Determination and be evaluated for consistency with the provisions of the Highlands Act. Major Highlands Development projects include a variety of projects such as any non-residential development, any residential development that disturbs one or more acres of land, any development that disturbs ¼ acres or more of forest among others. This process identifies any potential Highlands Resources on the site and if found requires adherence to relevant development standards and restrictions.



Operational and Administration

The Borough has established a Joint Land Use Board that is responsible for the review of development applications. The Borough has a Zoning officer as well as a planning and zoning board secretary.

Funding

Operating Budget: The Borough's operating budget contains minimal provisions for expected repairs like snow removal and infrastructure repair after a storm or natural disaster.

Grants: The Borough has received funding from the NJDOT, Sustainable Jersey, The Garden State Preservation Trust Fund, and Clean Communities grant programs for the completion of mitigation and emergency response related projects including roadway and drainage improvements.

Education and Outreach

The Borough provides education and outreach regarding hazards through Hopatcong Days, community days and events.

The Borough's website's home page posts information regarding upcoming community events and important municipal decisions. The Borough's website also includes an emergency management information webpage.

Figure 9.13-1. Screenshot of Borough Website with Examples of their Emergency Information Notification



9.13.6 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 2011 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.

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Table 9.13-10. Past Mitigation Initiative Status

<u>Initiative Number</u>	<u>2011 Mitigation Action</u>	<u>Responsible Party</u>	<u>Status</u> (In progress, No progress, Complete)	<u>Describe Status</u> 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	<u>Next Step</u> (Include in 2016 HMP? or Discontinue)	<u>Describe Next Step</u> 1. If including action in the 2015 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
Hopatcong Borough 1	Retrofit roof, windows and doors to meet current high wind standards on Hudson Maxim School located on River Styx Road.	School Board Administrator	No Progress	Due to lack of funding, this project has not been completed.	Include in 2016 HMP	The windows of the school will be retrofitted to meet high wind standards; retrofitting the roof is not feasible
Hopatcong Borough 2	Retrofit roof to meet current snow load standards on Hopatcong Municipal Facility located on River Styx Road.	Borough Administrator	No Progress	Due to lack of funding, this project has not been completed.	Include in 2016 HMP	The roof of the municipal building will be retrofitted to meet the current snow load standards.
Hopatcong Borough 3	Harden shelter at Hopatcong High School to FEMA 361 Standards.	School Administrator	Complete	1. Funded by the Hopatcong Borough Board of Education. 2. Internal working of shelter funded by the Borough of Hopatcong	Discontinue	The shelter meets FEMA 361 standards and is recognized by FEMA and the American Red Cross as a regional shelter for Sussex County.
Hopatcong Borough 4	Backup generator for Hopatcong Fire Company #4 located on Jefferson Trail. Serves as shelter/reception center.	Station Commander	Complete	This project has been completed and was funded by the Borough.	Discontinue	This project has been completed and was funded by the Borough
Hopatcong Borough 5	Backup generator for Hopatcong Fire Department #3 located on Hopatchung Road. Serves as a shelter/reception center.	Station Commander	Complete	This project has been completed and was funded by the Borough.	Discontinue	This project has been completed and was funded by the Borough
Hopatcong Borough 6	Storm-water management system upgrade and improvement to alleviate flooding between Durban Ave and Wills Ave.	Municipal Engineer	No Progress	This is under NJDEP restriction	Include in 2016 HMP	The Borough will work with the NJDEP to alleviate flooding of the small stream that flows through this area of the Borough.



<u>Initiative Number</u>	<u>2011 Mitigation Action</u>	<u>Responsible Party</u>	<u>Status</u> (In progress, No progress, Complete)	<u>Describe Status</u> 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	<u>Next Step</u> (Include in 2016 HMP? or Discontinue)	<u>Describe Next Step</u> 1. If including action in the 2015 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
Hopatcong Borough 7	Harden shelter at Civic Center located on Lakeside Blvd to FEMA 361 Standards.	Facility Administrator	Complete	The roof has been replaced and the renovations inside the building have been completed.	Discontinue	The roof has been replaced and the renovations inside the building have been completed.
Hopatcong Borough 8	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator, in coordination with SCDM	In Progress	This is ongoing and conducted through Hopatcong Days, community days and events, etc.	Include in 2016 HMP	The Borough will continue and enhance their outreach program.



Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Borough has not identified any additional mitigation projects/activities that have been completed since approval of the 2011 Plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Borough participated in a mitigation action workshop in April 2015 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013). In May 2015, the Borough participated in a second workshop led by FEMA Region 2 and NJOEM and was provided the results to the risk assessment to further assist with the identification of mitigation actions.

Table 9.13-11 summarizes the comprehensive-range of specific mitigation initiatives the Borough would like to pursue in the future to reduce the effects of hazards. 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. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

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 your actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.13-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.13-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
Hopatcong-1	Ensure continuity of operations: Purchase and install Hopatcong Borough DPW Bldg Generators	Existing	All	1, 2, 6	DPW, OEM	High	High	HMGP with local cost share	Short Term	High	SIP	PP
Hopatcong-2	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	Both	All	All	Planning	High	Low	Municipal Budget	Ongoing	Medium	LPR	PR
Hopatcong-3	Offer training on best practices for hazard mitigation and hazard identification for Borough employees.	N/A	All	All	OEM Coordinator	High	Low	Municipal Budget	Ongoing	Medium	EAP, LPR	PR, PI
Hopatcong-4	Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.	Existing	Severe Weather, Severe Winter Weather	1, 2, 6	Borough Administration	Medium	High	HMGP with local cost share	Short Term / DOF	Medium	SIP	PP
Hopatcong-5	Retrofit roof to meet current snow load standards on Hopatcong Municipal Facility located on River Styx Road.	Existing	Severe Winter Weather	1, 2, 6	Borough Administration	Medium	High	HMGP with local cost share	Short Term / DOF	Low	SIP	PP
Hopatcong-6	The Borough will work with the NJDEP to alleviate flooding of the small stream that flows through the area of Flora Avenue between Durban and Wills Avenue.	Existing	All	1, 2	Borough Administration, NJDEP	Medium	Medium	HMGP or other grants with local cost share	Long Term	Low	SIP	PP
Hopatcong-7	Enhance the current all-hazards public education and outreach program by developing, implementing and facilitating a multi-hazard public awareness program. Provide information on all types of hazards, preparedness	N/A	All	All	OEM with support from County OEM	Medium	Low	Municipal Budget	Ongoing	Medium	EAP	PI



Table 9.13-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	and mitigation measures via the Borough website and social media.											
Hopatcong-8	Upgrade radio communication and pagers for fire department	N/A	All	1, 2, 6	Fire Department	Medium	Medium	HMGP with local cost share	Short Term	Medium	SIP	PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

*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:

CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
NJDEP	New Jersey Department of Environmental Protection
NJOEM	New Jersey Office of Emergency Management
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
HMA	Hazard Mitigation Assistance Program

Timeline:

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

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.

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 (NSP)* – 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

CRS Category:

- *Preventative Measures (PR)*-Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- *Property Protection (PP)*-These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- *Public Information (PI)*-Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- *Natural Resource Protection (NR)*-Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- *Structural Flood Control Projects (SP)*-Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- *Emergency Services (ES)*-Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 9.13-12. 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
Hopatcong-1	Hopatcong Borough DPW Bldg Generators	1	1	1	1	1	1	0	0	0	1	1	1	0	0	9	High
Hopatcong-2	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	1	1	1	1	0	0	0	0	1	1	1	1	0	0	8	Medium
Hopatcong-3	Offer training on best practices for hazard mitigation and hazard identification for Borough employees.	1	1	1	1	0	0	0	0	1	1	1	1	0	0	8	Medium
Hopatcong-4	Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.	1	1	1	1	0	0	0	0	0	1	1	0	0	0	6	Medium
Hopatcong-5	Retrofit roof to meet current snow load standards on Hopatcong Municipal Facility located on River Styx Road.	1	1	0	0	-1	-1	0	0	0	0	1	0	0	0	1	Low
Hopatcong-6	The Borough will work with the NJDEP to alleviate flooding of the small stream that flows through the area of Durban and Wills Avenue.	1	1	0	0	0	1	0	1	0	0	0	0	0	0	4	Low
Hopatcong-7	Enhance the current all-hazards public education and outreach program by developing, implementing and facilitating a multi-hazard public awareness program. Provide information on all types of hazards, preparedness and mitigation measures via the Borough website and social media.	1	1	1	1	0	0	1	0	0	1	1	1	0	0	8	Medium

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



9.13.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.13.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Borough of Hopatcong 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 Borough of Hopatcong has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.13.9 Additional Comments

None at this time.

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Figure 9.13-2. Borough of Hopatcong Hazard Area Extent and Location Map 1

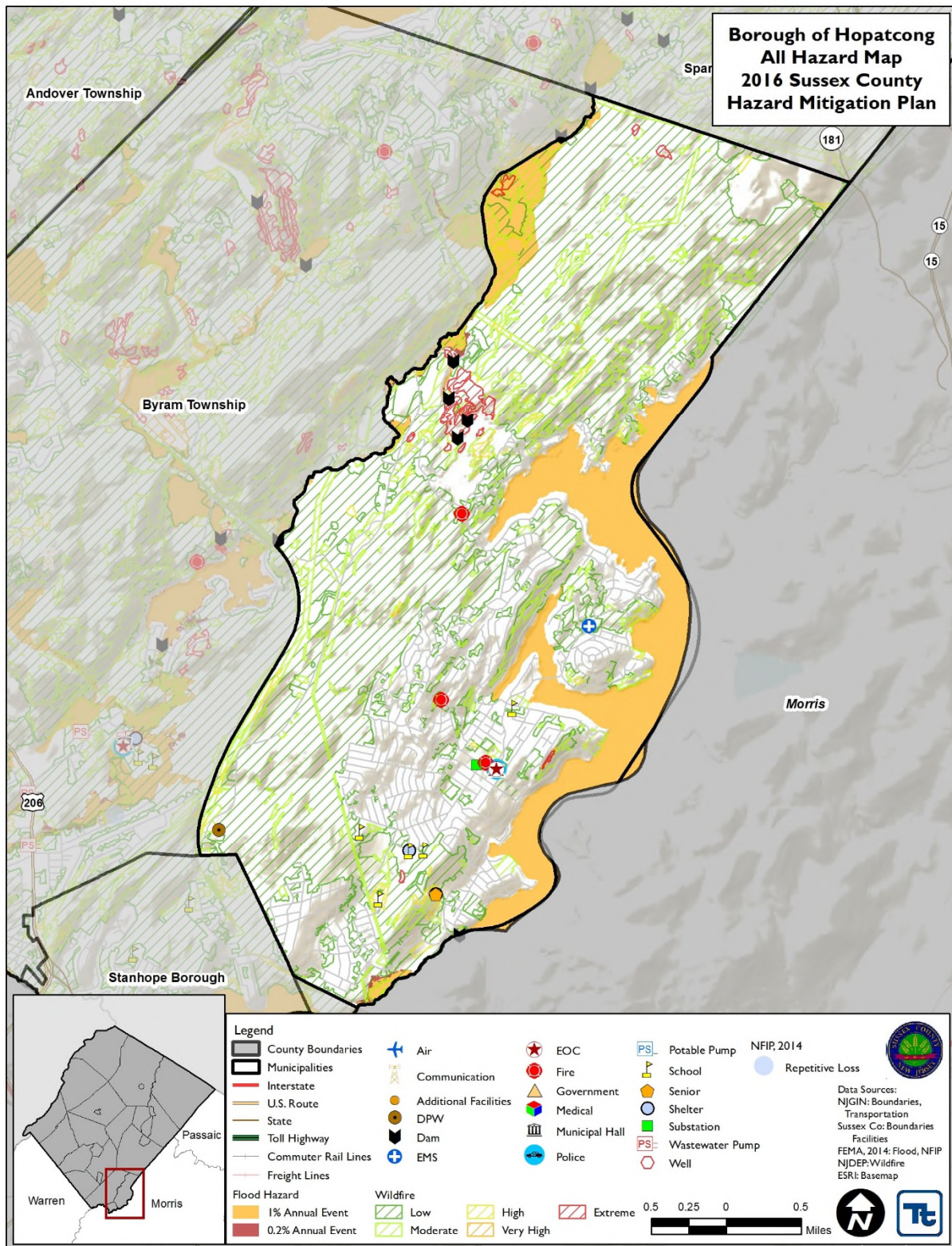
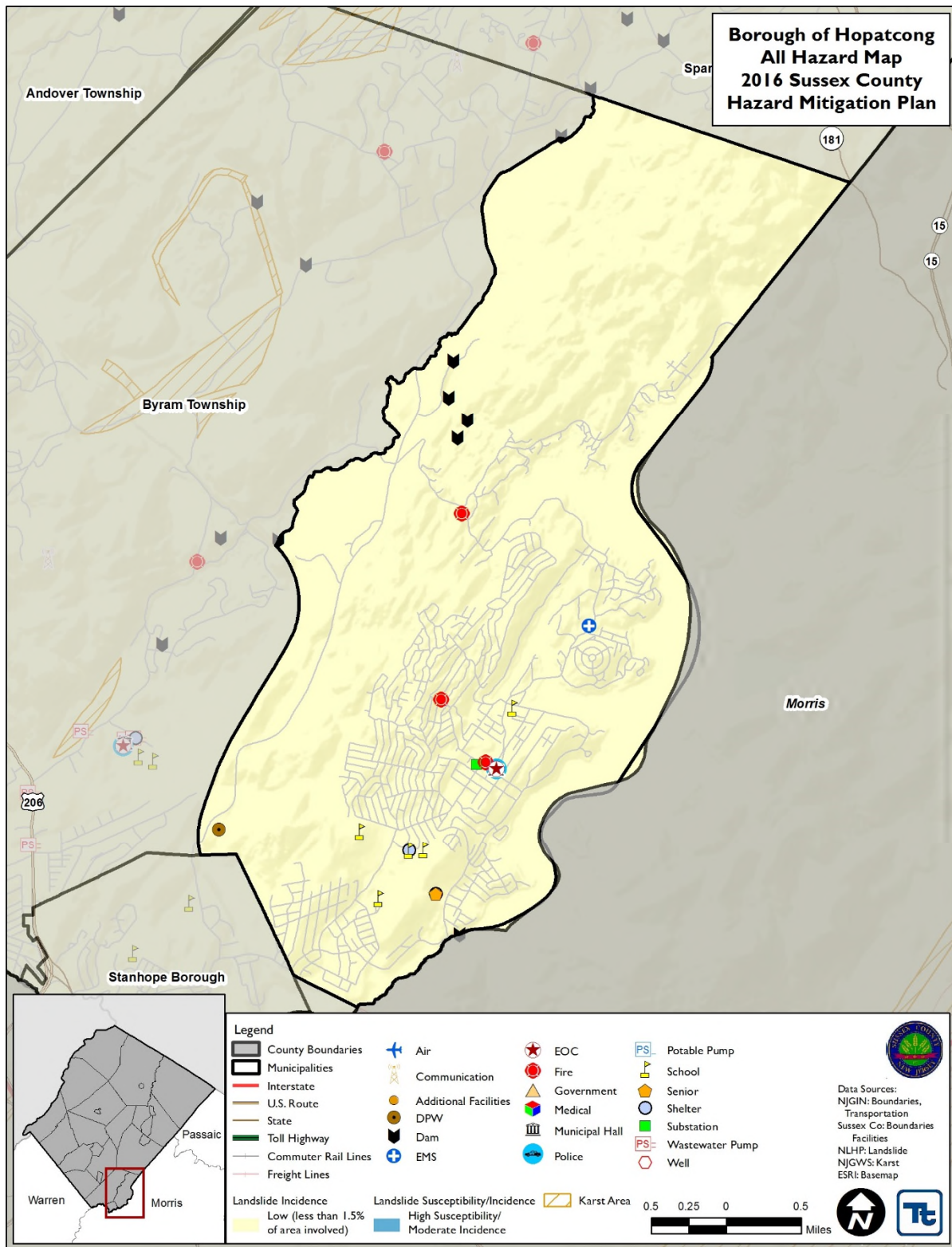




Figure 9.13-3. Borough of Hopatcong Hazard Area Extent and Location Map 2



**Action Number:**

Hopatcong-1

Mitigation Action/Initiative:

Generators for DPW building

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Loss of power to DPW building prevents operations to function during emergencies and hazard events
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Purchase and install generators at DPW building
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase and install generators at DPW building
Action/Project Category	SIP
Goals/Objectives Met	1, 2, 6
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible/Lead Agency/Department	DPW, OEM
Local Planning Mechanism	Emergency Operations
Potential Funding Sources	HMGP with local cost share
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number: Hopatcong-1

Mitigation Action/Initiative: Generators for DPW building

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Provide the DPW the ability to function in the event of a power outage
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	All
Timeline	1	To be completed in the next five years
Local Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	

**Action Number:**

Hopatcong-4

Mitigation Action/Initiative:

Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.

Assessing the Risk	
Hazard(s) addressed:	Severe Weather, Severe Winter Weather
Specific problem being mitigated:	Windows do not meet the current high winds standards on the school.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.
	2. Construct new building – too costly
	3. Do nothing – current problem continues
Action/Project Intended for Implementation	
Description of Selected Action/Project	Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.
Action/Project Category	SIP
Goals/Objectives Met	1, 2, 6
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	Medium – loss of life and property
Estimated Cost	High
Priority	Medium
Plan for Implementation	
Responsible/Lead Agency/Department	Borough Administration
Local Planning Mechanism	School Budget
Potential Funding Sources	HMGP with local cost share
Timeline for Completion	Short Term / DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:

Hopatcong-4

Mitigation Action/Initiative:

Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	0	
Local Champion	0	
Other Community Objectives	0	
Total	6	
Priority (High/Med/Low)	Medium	

**Action Number:**

Hopatcong-5

Mitigation Action/Initiative:

Retrofit roof on Municipal building to meet current snow load standards

Assessing the Risk	
Hazard(s) addressed:	Severe Winter Weather
Specific problem being mitigated:	Roof of municipal building does not meet current snow load standards
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Retrofit roof on Municipal building to meet current snow load standards
	2. Construct new municipal building – not feasible; too costly
	3. Do nothing – current problem continues
Action/Project Intended for Implementation	
Description of Selected Action/Project	Retrofit roof on Municipal building to meet current snow load standards
Action/Project Category	SIP
Goals/Objectives Met	1, 2, 6
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	High
Priority	Low
Plan for Implementation	
Responsible/Lead Agency/Department	Borough Administration
Local Planning Mechanism	TBD
Potential Funding Sources	HMGP with local cost share
Timeline for Completion	Short Term / DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number: Hopatcong-5

Mitigation Action/Initiative: Retrofit roof on Municipal building to meet current snow load standards

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Life and property safety
Property Protection	1	Life and property safety
Cost-Effectiveness	0	
Technical	0	
Political	-1	
Legal	-1	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	0	
Multi-Hazard	1	
Timeline	0	
Local Champion	0	
Other Community Objectives	0	
Total	1	
Priority (High/Med/Low)	low	



Action Number:

Hopatcong-6

Mitigation Action/Initiative:

Alleviate flooding on Flora Avenue

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Weather
Specific problem being mitigated:	The area of Flora Avenue, between Durban and Wills Avenue, floods due to the stream overflowing its banks during periods of heavy rain.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Alleviate flooding on Flora Avenue
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	The Borough will work with the NJDEP to alleviate flooding of the small stream that flows through the area of Flora Avenue between Durban and Wills Avenue.
Action/Project Category	SIP
Goals/Objectives Met	1, 2
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority	Low
Plan for Implementation	
Responsible/Lead Agency/Department	Borough Administration, NJDEP
Local Planning Mechanism	Stormwater Management
Potential Funding Sources	NJDEP, HMGP with local cost share
Timeline for Completion	Long Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number: Hopatcong-6

Mitigation Action/Initiative: Alleviate flooding on Flora Avenue

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Life and property safety
Property Protection	1	Life and property safety
Cost-Effectiveness	0	
Technical	0	
Political	0	
Legal	1	DEP involvement
Fiscal	0	
Environmental	1	DEP involvement
Social	0	
Administrative	0	
Multi-Hazard	0	
Timeline	0	
Local Champion	0	
Other Community Objectives	0	
Total	4	
Priority (High/Med/Low)	low	

**Action Number:**

Hopatcong-8

Mitigation Action/Initiative:

Upgrade radio communication and pagers for fire department

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There are communication shortfalls within the Borough fire department
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Upgrade radio communication and pagers for fire department
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Upgrade radio communication and pagers for fire department
Action/Project Category	SIP
Goals/Objectives Met	1, 2, 6
Applies to existing and/or new development; or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority	Medium
Plan for Implementation	
Responsible/Lead Agency/Department	Fire Department
Local Planning Mechanism	Emergency Operations
Potential Funding Sources	HMGP with local cost share
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number: Hopatcong-8

Mitigation Action/Initiative: Upgrade radio communication and pagers for fire department

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect life and property
Property Protection	1	Protect life and property
Cost-Effectiveness	0	
Technical	1	Technically feasible
Political	0	
Legal	1	Local authority will implement the action
Fiscal	-1	Cannot be funded under existing budget
Environmental	0	
Social	0	
Administrative	1	Self-maintained
Multi-Hazard	1	Quicker response to property loss and life
Timeline	1	Can be completed within 5 years provided grants available
Local Champion	1	Implementation by the fire department
Other Community Objectives	0	
Total	7	
Priority (High/Med/Low)	Medium	