



## 9.17 Borough of Lincoln Park

This section presents the jurisdictional annex for the Borough of Lincoln Park.

### 9.17.1 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
Name: Perry T. Mayers, Borough Administrator Address: 34 Chapel Hill Road, Lincoln Park, NJ 07035 Phone: 973-270-2022 E-mail: pmayer@bolp.org	Name: Mark West, Chief of Police Address: 34 Chapel Hill Road, Lincoln Park, NJ 07035 Phone: 973-270-2512 E-mail: mwest@bolp.org

### 9.17.2 Municipal Profile

The Borough of Lincoln Park is located in the extreme southeast portion of Morris County. The Township is bordered to the north by the Township of Pequannock, to the east by the Township of Wayne, to the south by the Borough of Fairfield, and to the northwest by the Borough of Kinnelon. The total land area of the Borough is 6.7 square miles. Waterbodies in the Borough include the Passaic River, Pompton River, Beaver Dam Brook, East Ditch and West Ditch. According to the U.S. Census, the Borough has a total area of 6.91 square miles, of which 6.38 square miles is land and 0.53 square miles is water.

### 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.

Table 9.17-1. 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
<b>Recent Development from 2010 to present</b>					
Ungerer & Company	Comm	1	4 Bridgewater Lane	Flood: 0.2% Chance; NEHRP: E	Completed 12/2013
<b>Known or Anticipated Development in the Next Five (5) Years</b>					
None identified					

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

### 9.17.3 Natural Hazard Event History Specific to the Municipality

Morris 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 9.17-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
March 12 – April 15, 2010	Severe Storms and Flooding	DR-1897	Yes	There were 141 evacuations in the Borough. The storms forced the closure of 19 roads and 14 utility complaints. During this event, the police department handled 1,850 calls.
March 7, 2011	Flood	N/A	N/A	This event led to eight evacuations and 17 community notifications were performed. Nine roadways were flooded and there was a power outage reported at a large apartment complex. The police dealt with 74 calls for service during the storm.
August 26 – September 5, 2011	Hurricane Irene	EM-3332 DR-4021	Yes Yes	During Irene, the Borough received 111 calls for evacuations and 40 community notifications were performed. There were 16 reports of electrical utility complaints. Roads were closed or severely compromised by floodwaters and debris that created threats to public, health and safety causing limited access to medical facilities, schools, food, fuel and utilities. Also, two sections of Pinebrook Road suffered damage and had to be repaved to restore it. The police handled 781 calls for service.
September 28 – October 6, 2011	Remnants of Tropical Storm Lee	DR-4039	No	During Lee, there were four reports of electrical utility complaints and the police handled 389 calls for service.
October 29, 2011	Severe Storm	DR-4048	Yes	There were 51 reports of electrical utility complaints and the police handled 146 calls for service during the storm.
October 26 – November 8, 2012	Hurricane Sandy	EM-3354 DR-4086	Yes Yes	During Sandy, there were 63 reports of electrical utility complaints, 18 reports of roadway hazards, and five community notifications were performed. Uprooted trees damaged concrete sidewalks on Pleasant Avenue and Main Street. The high winds caused damage to the DPW garage roof. Telephone poles were downed causing the main breaker on the generator to trip on the sewer pump motor. Fallen trees also damaged two cars in the Borough. Police handled 688 calls for service during Sandy.

**9.17.4 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 Borough of Lincoln Park. 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 Lincoln Park.





**Table 9.17-3. 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
Drought	Damage estimate not available	Frequent	27	Medium
Dam Failure	Damage estimate not available	Rare	6	Low
Earthquake	500-year MRP: \$4,922,453 2,500-year MRP: \$81,410,359	Occasional	32	High
Extreme Temperature	Damage estimate not available	Frequent	27	Medium
Flood	1% Annual Chance: \$181,279,791	Frequent	42	High
Geological Hazards	Exposed to Class A and Class B: \$25,917,037	Occasional	12	Low
Severe Storm	100-Year MRP: \$2,550,498 500-year MRP: \$7,761,113 Annualized: \$168,173	Frequent	48	High
Winter Storm	1% GBS: \$25,213,315 5% GBS: \$126,066,575	Frequent	54	High
Wildfire	Estimated Value Exposed to Extreme, Very High and High: \$1,317,804	Rare	6	Low
Disease Outbreak	Damage estimate not available	Frequent	36	High
Hazardous Materials	Damage estimate not available	Frequent	36	High
Infestation	Damage estimate not available	Frequent	18	Medium

*Notes:*

- 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 custom inventory for the municipality.  
High = Total hazard priority risk ranking score of 31 and above  
Medium = Total hazard priority risk ranking of 20-30+  
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.

**National Flood Insurance Program (NFIP) Summary**

The following table summarizes the NFIP statistics for the Borough of Lincoln Park.

**Table 9.17-4. 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)
Borough of Lincoln Park	764	2,845	\$62,483,351.73	132	129	711

Source: FEMA Region 2, 2014

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 9/30/2014. Please note the total number of repetitive loss properties includes the severe repetitive loss properties. The number of claims represents claims closed by 9/30/14.
- (2) Total building and content losses from the claims file provided by FEMA Region 2.
- (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.





Notes: 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.  
 A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.  
 Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude.

**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 9.17-5. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(2)
Lincoln Park Airport	Air	X	X	-	-	-
Lincoln Park Borough	DPW	X	X	0	0	-
Pequannock/Lincoln Park/Fairfield	Wastewater	X	X	3.5	-	-
The Craig Upper School	School		X	8.92	52.41	480
Two Bridges Sewerage Auth	Wastewater	X	X	3.5	-	-

Source: HAZUS-MH 2.1

Note (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).

Note (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. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

NA Not available

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.1

**Other Vulnerabilities Identified**

According to the 2010 preliminary FEMA Flood Insurance Study (FIS) for Morris County, low-lying areas of the Borough of Lincoln Park are subject to periodic flooding caused by the overflow of the Passaic River, Pompton River, Beaver Dam Brook, East Ditch, and West Ditch (FEMA FIS 2010).

**9.17.5 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 Borough of Lincoln Park.

**Table 9.17-6. 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.)
<b>Planning Capability</b>				
Master Plan	Yes	Local	Planning Board	Adopted October 18, 2012
Capital Improvements Plan	Yes	Local	Planning Board	2014
Floodplain Management / Basin Plan	Yes	Local	Planning Board	Chapter 17, Article 10
Stormwater Management Plan	Yes	Local	DPW	Stormwater Ordinance 10-14; 11-14
Open Space Plan	No			
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			
Economic Development Plan	No			
Comprehensive Emergency Management Plan	No			
Emergency Response Plan	Yes	Local	Police/OEM	Updated 10/9/14
Post-Disaster Recovery Plan	Yes	Local	OEM	Updated 10/9/14
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:				
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local	Planning Board	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Planning Board	Chapter 28
Subdivision Ordinance	Yes	Local	Planning	Chapter 28
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Planning Board	Chapter 17, Article 10
NFIP: Cumulative Substantial Damages	Yes	Federal	Planning	Provided by FEMA
NFIP: Freeboard	Yes	State, Local		
Growth Management Ordinances	No			
Site Plan Review Requirements	Yes	Local	Planning	Chapter 28
Stormwater Management Ordinance	Yes	Local	Planning	Chapter 28
Municipal Separate Storm Sewer System (MS4)	No	State	NJ DEP	N.J.A.C. 7:14A-25.1
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			



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.)
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	Planning	Chapter 17 and 28

**Administrative and Technical Capability**

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

**Table 9.17-7. Administrative and Technical Capabilities**

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



### Fiscal Capability

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

**Table 9.17-8. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community development Block Grants (CDBG, CDBG-DR)	Yes – limited areas
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
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

### Community Classifications

The table below summarizes classifications for community program available to the Borough of Lincoln Park.

**Table 9.17-9. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	Yes	10	10/1/2006; however, as of May 1, 2014, the status is now 'rescinded' In process of applying for renewal
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	4	
Storm Ready	No		
Firewise	No		
Disaster/Safety Programs in/for Schools	Yes		
Organizations with Mitigation Focus (advocacy group, non-government)	No		
Public Education Program/Outreach (through website, social media)	Yes		
Public-Private Partnerships	No		

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/>

### Self-Assessment of Capability

The table below provides an approximate measure of Lincoln Park’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.17-10. Self-Assessment Capability for the Municipality

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		
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

Salvator Marino, Construction Official

#### Flood Vulnerability Summary

The Borough has a list of properties that have been damaged by floods, and it is maintained by the NJDEP and FEMA. A list of residential properties damaged by Sandy and other major storm events is also maintained by the Borough. The Borough had 10 substantial damaged estimates for Hurricane Irene. Over 100 property owners are interested in mitigation opportunities, with 45 of them currently in mitigation buyouts; funding for this projects comes from FEMA grant, Morris County grant and NJDEP grant programs.





## Resources

The NFIP FPA is not the sole person responsible for floodplain administration; the Borough Engineer is used as required. The department reviews all flood permits and provides inspections and damage assessments as needed; public education and outreach will begin in 2015. The FPA believes that further training on floodplain management is necessary to have a successful program and would attend continuing education and/or certification training on floodplain management if it were offered in the County for local administrators.

## Compliance History

The community is currently in good-standing in the NFIP. The more recent compliance audit was completed in November 2014.

## Regulatory

The Borough has additional ordinances that exceed the FEMA and State minimum requirements. The Borough entered the Community Rating System (CRS) on October 1, 1991 with its current effective date of October 1, 2006. The Borough's status in the CRS has since been rescinded; however, the Borough expects to be at CRS Level 6 in 2015 and would attend CRS seminars if they were offered locally.

## Community Rating System

The Borough of Lincoln Park does participate in the Community Rating System (CRS) program. A CAV was conducted on February 27, 2014. CAV letter was issued on January 5, 2015

## 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

The Borough of Lincoln Park participates in the County's Flood Mitigation Program (FMP) and has an approved Flood Acquisition Plan (FLAP). The Morris County FMP is the first dedicated, county-level flood acquisition program in the State of New Jersey. The FMP allows Morris County to assist municipalities in moving people out of harm's way, lowering municipal costs due to intense flooding episodes, and create natural flood capture and storage areas which protect the remaining homes and businesses. The FMP is funded by the Morris County Open Space tax and provides grant monies for municipalities to purchase flood-prone residential properties. In addition to MATCH funding available for projects with state or federal monies, Morris County has CORE funding in which the County takes the lead grant role, providing up to 75% of the cost of acquisition. To access this CORE funding, a municipality must have a FLAP. The FLAP is a dynamic, essential tool for understanding the unique flood hazards to residential homes within each community. Working closely with the municipality, Morris County creates this detailed, comprehensive analysis of the historic and current flood risks free of charge. A wide array of data is utilized from sources such as: FEMA, National Flood Insurance Program, USACE Flood Studies, USGS stream gage data, topography and soil analysis. All land acquired with MATCH and CORE funding within the FMP is permanently deed-restricted, preserved open space, available for public use as an active or passive recreation area. The acquired land is municipal-owned and managed in perpetuity.



### Regulatory and Enforcement

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The Borough has multiple ordinances pertaining to the mitigation of hazards. These ordinances include the NFIP Flood Damage Prevention Ordinance, a drainage ordinance, a fire prevention ordinance, and a hazardous materials ordinance.

### Education and Outreach

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The Borough provides outreach to and emergency notifications to the community through a multitude of outlets. The Borough has both a Twitter and Facebook page that provides residents up-to-date information regarding the community and emergency events. The County's Everbridge notification system is also used to provide residents with information regarding various emergency situations. The Office of Emergency Management's webpage has information on flood risk, in addition to general safety and welfare tips.

## 9.17.6 Mitigation Strategy and Prioritization

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

### Past Mitigation Initiative Status

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The following table indicates progress on the community's mitigation strategy identified in the 2010 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 9.17-11. Past Mitigation Initiative Status**

2010 Mitigation Action	Lead	Status	Describe Status	Next Step	Describe Next Step
Lincoln Park 1: Acquisition / elevation of eight severe repetitive loss properties on Aspen Lane, Bank Lane, Dubrow Street, Elm Street, and Riveredge Road. Note: All of the listed projects are identified in the Central Passaic River Flood Reduction Measures Technical Sub-Committee Report.	Borough OEM / Public Works	In Progress	NJDEP completed all that participated. Awaiting new funding.	Include in 2015 HMP	Seek funding
Lincoln Park 2: Acquisition /elevation of eight severe repetitive loss properties on DeHart Street, Ryerson Road, W. William Street, and Linden Avenue.	Borough OEM / Public Works	In Progress	NJDEP completed all that participated. Awaiting new funding	Include in 2015 HMP	Seek funding
Lincoln Park 3: Acquisition / elevation of eight severe repetitive loss properties on Harmon Street, Woodlawn Road, Walnut Street, and Roosevelt Street.	Borough OEM / Public Works	In Progress	NJDEP completed all that participated. Awaiting new funding	Include in 2015 HMP	Seek funding
Lincoln Park 4: Acquisition / elevation of eight severe repetitive loss properties on Oak Street, Poplar Street, Forrest Avenue.	Borough OEM / Public Works	In Progress	NJDEP completed all participated. Awaiting new funding.	Include in 2015 HMP	Seek funding
Lincoln Park 5: Acquisition / elevation of eight severe repetitive loss properties on Midwood Road, President Street, Maple Street, Pequannock Avenue, and Franklin Street.	Borough OEM / Public Works	In Progress	NJDEP completed all participated. Awaiting new funding.	Include in 2015 HMP	Seek funding
Lincoln Park 6: Acquisition / elevation of 22 repetitive loss properties on Lincoln Boulevard and Pequannock Avenue.	Borough OEM / Public Works	In Progress	NJDEP completed all participated. Awaiting new funding.	Include in 2015 HMP	Seek funding
Lincoln Park 7: Acquisition / elevation of 23 repetitive loss properties on Riveredge Road and Ryerson Road.	Borough OEM / Public Works	In Progress	NJDEP / Lincoln Park continue to acquire	Include in 2015 HMP	Complete final acquisitions and demolitions
Lincoln Park 8: Mitigate Pompton / Passaic River chokepoints via debris-clearing and/or dredging (see list in "Central	Borough OEM / Public Works in cooperation with neighboring	In Progress	Working on NJDEP and property owners permission	Include in 2015 HMP	Obtain permits





**Table 9.17-11. Past Mitigation Initiative Status**

2010 Mitigation Action	Lead	Status	Describe Status	Next Step	Describe Next Step
Passaic River Flood Reduction Measures Technical Sub-Committee Report," June 24, 2008).	jurisdictions				
Lincoln Park 9: Elevate Two Bridges Road (major road and evacuation route); engineering study.	Borough OEM / Public Works	No Progress	0% Complete	Include in 2015 HMP	Seek funding/permits
Lincoln Park 10: TBSA Treatment Plant; flood mitigation/engineering study to determine appropriate flood mitigation actions.	Two Bridges Sewerage Authority	No Progress	0% Complete	Include in 2015 HMP	TBSA is commencing a project that will elevate equipment to the 500 year flood elevation. Work will be 2 years before completing.
Lincoln Park 11: Develop all hazards public education and outreach program for hazard mitigation and preparedness	Local and County OEM	In Progress	0% Complete	Include in 2015 HMP	Begin education/outreach



### Proposed Hazard Mitigation Initiatives for the Plan Update

The Borough of Lincoln Park participated in a mitigation action workshop in January 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)

Table 9.17-12 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Lincoln Park 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, fourteen 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 9.17-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.17-12. 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
BLP-1 (former Lincoln Park 1 through 7)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option (in progress). Phase 2: Work with the property owners to implement selected action based on available funding and local match availability. Acquisition / elevation of RL and SRL properties: <ul style="list-style-type: none"> <li>• Eight properties on Aspen Lane, Bank Lane, Dubrow Street, Elm Street, and Riveredge Road. Note: All of the listed projects are identified in the Central Passaic River Flood Reduction Measures Technical Sub-Committee Report.</li> <li>• Eight severe repetitive loss properties on DeHart Street, Ryerson Road, W. William Street, and Linden Avenue.</li> <li>• Eight severe repetitive loss properties on Harmon Street, Woodlawn Road, Walnut Street, and Roosevelt Street.</li> <li>• Eight severe repetitive loss properties on Oak Street, Poplar Street, Forrest Avenue.</li> <li>• Eight severe repetitive loss properties on Midwood Road, President Street, Maple Street, Pequannock Avenue, and Franklin Street.</li> <li>• 22 repetitive loss properties on Lincoln Boulevard and Pequannock Avenue.</li> <li>• 23 repetitive loss properties on Riveredge Road and Ryerson Road.</li> </ul>											
	See above	Existing	Flood	G-3, G-4	Borough OEM / Public Works / Engineering	High	High	HMA Grants	Long Term DOF	High	SIP	SP
BLP-2 (former Lincoln Park 8)	Mitigate Pompton / Passaic River chokepoints via debris-clearing and/or dredging (see list in "Central Passaic River Flood Reduction Measures Technical Sub-Committee Report," June 24, 2008).	N/A	Flood, Severe Storm	G-3, G-4	Borough OEM / Public Works in cooperation with neighboring jurisdictions	High	High	HMA Grants, Army Corp of Engineers	Long Term DOF	High	SIP	SP
BLP-3 (former Lincoln Park 9)	Elevate Two Bridges Road (major road and evacuation route); engineering study.	Existing	Flood	G-3, G-4	Borough OEM / Public Works	High	High	HMA Grants	Long Term DOF	Medium	SIP	SP
BLP-4 (former Lincoln Park 10)	TBSA Treatment Plant; flood mitigation/engineering study to determine appropriate flood mitigation actions.	Existing	Flood	G-2	Two Bridges Sewerage Authority	High	Medium	Municipal Budget	Short Term DOF	Medium	LPR	PR
BLP-5 (former Lincoln Park 11)	Develop all hazards public education and outreach program for hazard mitigation and preparedness	N/A	All	G-1	Local and County OEM	High	Low	Municipal Budget	Short Term DOF	High	EAP	PE

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:

CAV	Community Assistance Visit
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
RFC	Repetitive Flood Claims Grant Program (discontinued 2015)
SRL	Severe Repetitive Loss Grant Program (discontinued 2015)

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 9.17-13. 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
BLP-1 (former Lincoln Park 1 through 7)	Support the mitigation of vulnerable structures through acquisition / elevation of RL and SRL properties in the Borough	1	1	1	1	1	1	0	0	1	1	0	0	1	1	10	High
BLP-2 (former Lincoln Park 8)	Mitigate Pompton / Passaic River chokepoints	0	1	1	0	1	1	0	1	0	1	1	0	1	0	8	High
BLP-3 (former Lincoln Park 9)	Elevate Two Bridges Road	0	0	0	1	1	1	1	1	0	1	0	0	1	0	7	Medium
BLP-4 (former Lincoln Park 10)	TBSA Treatment Plant	0	1	1	1	0	0	0	1	0	1	0	0	0	0	5	Medium
BLP-5 (former Lincoln Park 11)	Develop all hazards public education and outreach program for hazard mitigation and preparedness	1	0	1	0	1	0	0	0	1	0	1	0	1	0	6	Medium

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



### **9.17.7 Future Needs To Better Understand Risk/Vulnerability**

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None at this time.

### **9.17.8 Hazard Area Extent and Location**

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

### **9.17.9 Additional Comments**

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None at this time.



Figure 9.17-1. Borough of Lincoln Park Hazard Area Extent and Location Map 1

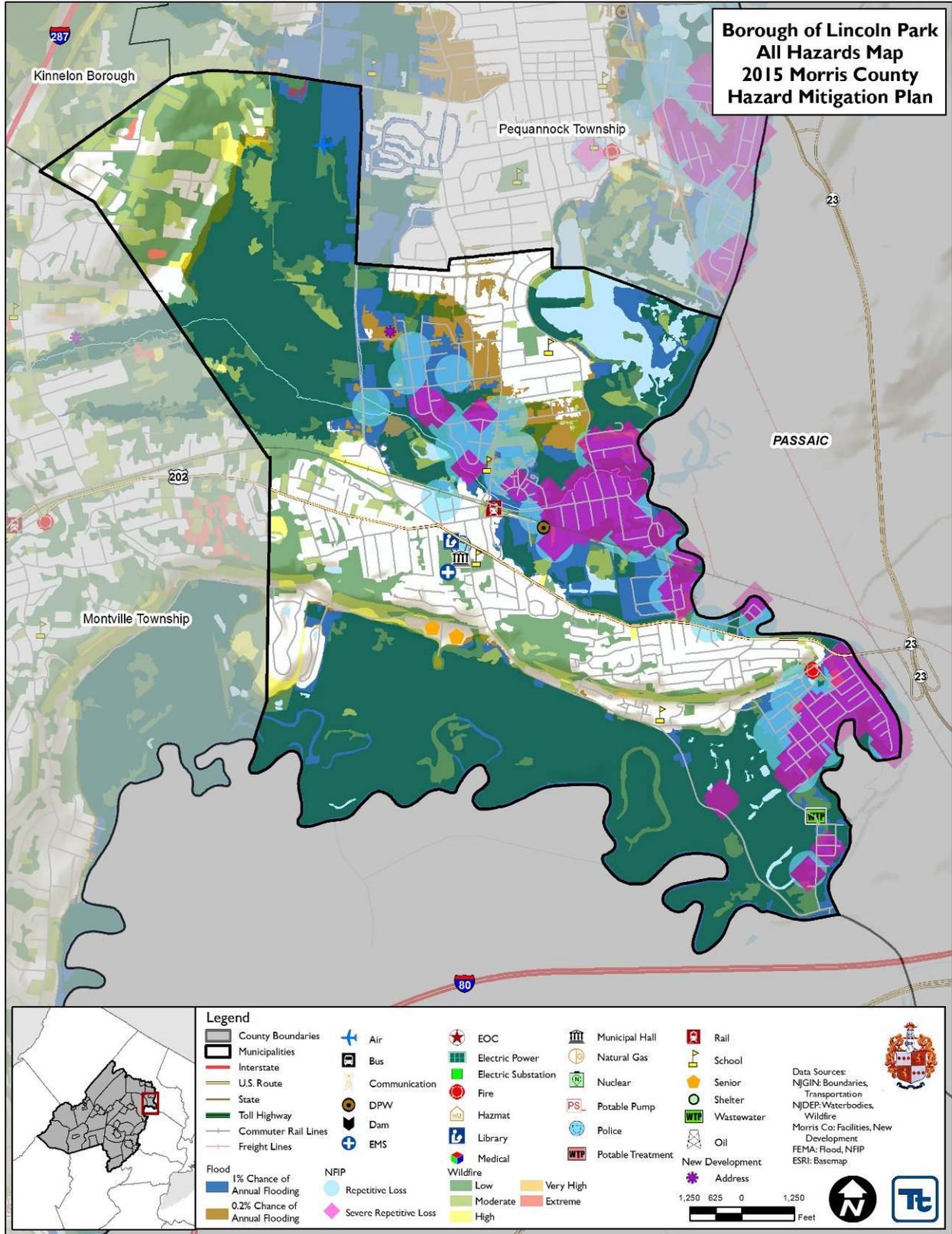
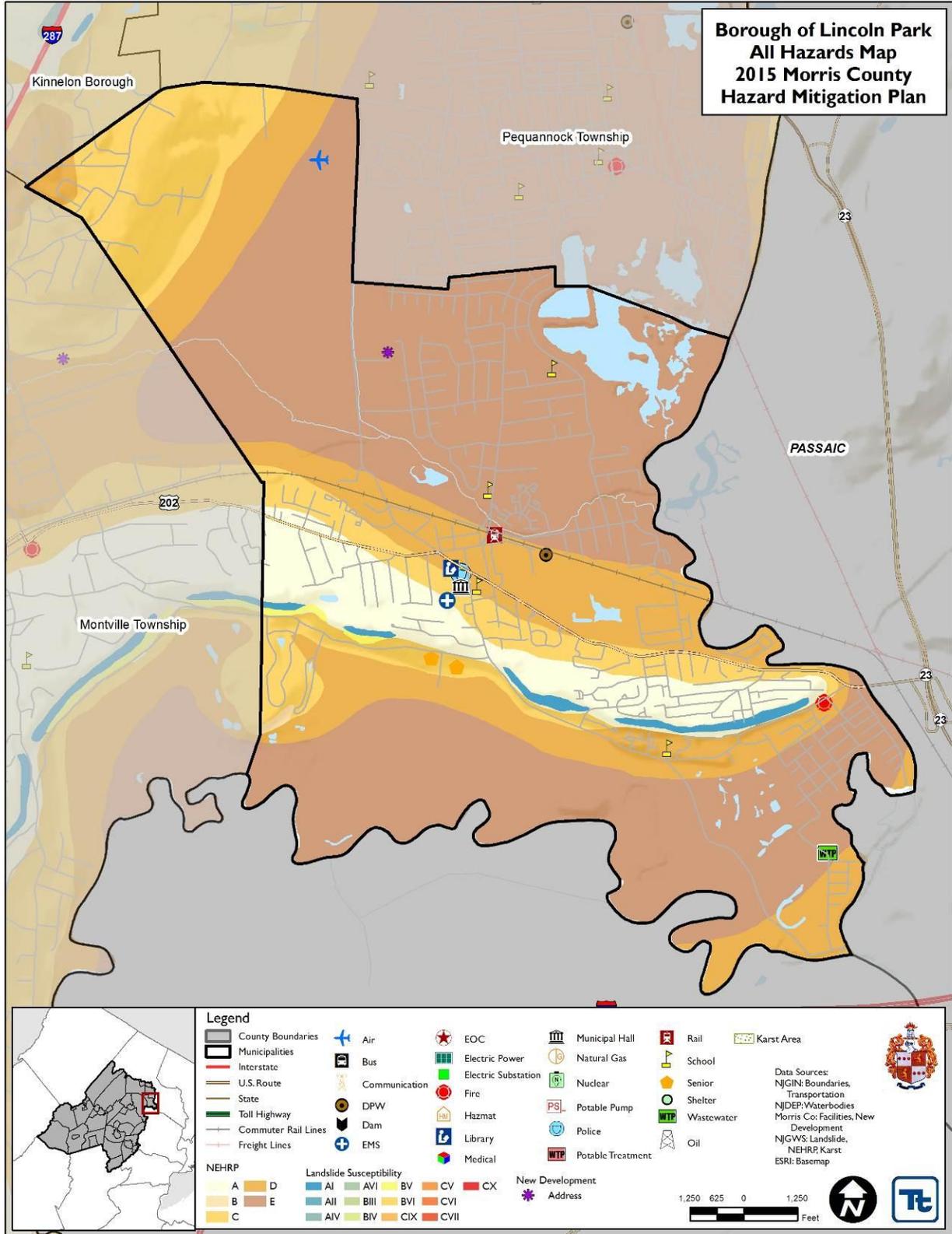




Figure 9.17-2. Borough of Lincoln Park Hazard Area Extent and Location Map 2





**Action Number:** BLP-1  
**Mitigation Action/Initiative:** Support the mitigation of vulnerable structures through acquisition / elevation of RL and SRL properties in the Borough

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood, Severe Storm
<b>Specific problem being mitigated:</b>	Repetitive damages to floodprone homes
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Acquire or Elevate Properties
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Identify and begin to mitigate repetitive flood loss properties within the Borough
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	3, 4
<b>Applies to existing and/or new development; or not applicable</b>	N/A
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Borough OEM / Public Works / Engineering
<b>Local Planning Mechanism</b>	
<b>Potential Funding Sources</b>	HMA Grants, HMGP
<b>Timeline for Completion</b>	Long Term / DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)



**Action Number:**

BLP-1

**Mitigation Action/Initiative:**

Support the mitigation of vulnerable structures through acquisition / elevation of RL and SRL properties in the Borough

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect those impacted by flooding
Property Protection	1	Prevent flood losses to buildings in the Borough
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	0	
Local Champion	1	
Other Community Objectives	1	
<b>Total</b>	10	
<b>Priority (High/Med/Low)</b>	High	



Action Number:

BLP-2

Mitigation Action/Initiative:

Mitigate Pompton / Passaic River chokepoints

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood, Severe Storm
<b>Specific problem being mitigated:</b>	Roadways being flooded and river flow is being impeded by siltation
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Dredge and debris clearing of Pompton River at NJ Transit crossing
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Mitigate Pompton / Passaic River chokepoints via debris-clearing and/or dredging (see list in "Central Passaic River Flood Reduction Measures Technical Sub-Committee Report," June 24, 2008).
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	3, 4
<b>Applies to existing and/or new development; or not applicable</b>	N/A
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Borough OEM / Public Works in cooperation with neighboring jurisdictions
<b>Local Planning Mechanism</b>	TBD
<b>Potential Funding Sources</b>	HMA Grants, Army Corp of Engineers
<b>Timeline for Completion</b>	Long Term / DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)



**Action Number:** BLP-2

**Mitigation Action/Initiative:** Mitigate Pompton / Passaic River chokepoints

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Reduce flooding in the area of the chokepoint
Cost-Effectiveness	1	
Technical	0	
Political	1	
Legal	1	
Fiscal	0	
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	0	
Local Champion	1	
Other Community Objectives	0	
<b>Total</b>	<b>8</b>	
<b>Priority (High/Med/Low)</b>	<b>High</b>	



Action Number:

BLP-3

Mitigation Action/Initiative:

Elevate Two Bridges Road and conduct engineering study

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood
<b>Specific problem being mitigated:</b>	Flooding of roadways in area. Evacuation route affected negatively.
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Conduct an engineering study to elevate Two Bridges Road and implement project
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Elevate Two Bridges Road (major road and evacuation route); engineering study.
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	3, 4
<b>Applies to existing and/or new development; or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	High
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Borough OEM / Public Works
<b>Local Planning Mechanism</b>	Capital Improvement
<b>Potential Funding Sources</b>	HMA Grants
<b>Timeline for Completion</b>	Long Term / DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)



**Action Number:** BLP-3

**Mitigation Action/Initiative:** Elevate Two Bridges Road and conduct engineering study

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	0	Reduce flooding and damages to roadway
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	0	
Timeline	0	
Local Champion	1	
Other Community Objectives	0	
<b>Total</b>	<b>7</b>	
<b>Priority (High/Med/Low)</b>	<b>Medium</b>	