SOMERSET COUNTY

HAZARD MITIGATION PLAN

SOMERSET COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

FINAL PLAN UPDATE
JULY 2019

www.co.somerset.nj.us/hmp

Section 9.5:
Borough of Bound Brook Annex

Prepared by the Somerset County Mitigation Planning Committee

9.5 Borough of Bound Brook

This section presents the jurisdictional annex for the Borough of Bound Brook (hereinafter referred to as Bound Brook).

9.5.1 HAZARD MITIGATION PLAN POINTS OF CONTACT

Hazard Mitigation Plan Points of Contact	
Primary Point of Contact	**Alternate Point of Contact**
Name: Hector Herrera, MHMO Address: 230 Hamilton Street Bound Brook, New Jersey 08805 Phone Number: 732-893-8520 Fax Number: E-mail Address: hherrera@boundbrook-nj.org	Name: Robert Fazen, Mayor Address: 230 Hamilton Street Bound Brook, New Jersey 08805 Phone Number: 732-356-0833 Fax Number: E-mail Address: rfazen@boundbrook-nj.org

Municipal HMP Committee Members

Local Jurisdiction Role/Position	Name	Email	Phone	Date Notified About Mitigation Plan Development Process	Agreed to participate? (Yes/No)
Land Use/ Community Planner	Carlos Rodriguez	carlos@rodriguesurbandesign.com	908-420-3886	2/12/2018	YES
Emergency Manager	Paul Lasko	plasko@boundbrook-nj.org	732-356-0833	2/12/2018	YES
Floodplain Manager/ Floodplain Administrator	Jim Ayotte	jayotte@boundbrook-nj.org	732-356-0833	2/12/2018	YES
Public Works Director / City Engineer	Vinnie Orofino- DPW/ Robert Keady- Engineer T&M	vorofino@boundbrook-nj.org / RKeady@tandmassociates.com	732-865-9480	2/12/2018	YES
Building Code Official	Jim Ayotte	jayotte@boundbrook-nj.org	732-356-0833	2/12/2018	YES
Fiscal/Budget Officer	N/A	N/A	N/A	N/A	
Manager/Administrator	Hector Herrera	hherrera@boundbrook-nj.org	732-893-8520	2/12/2018	YES
Elected Officials	Mayor Robert Fazen	rfazen@boundbrook-nj.org	732-356-0833	2/12/2018	YES
Other 1:	Anthony Pranzatelli	apranzatelli@boundbrook-nj.org	732-356-0833	2/12/2018	YES

9.5.2 PROFILE

9.5.2.1 Population

The population of Bound Brook is estimated to be 10,402, based on information gathered during the 2010 U.S. Census. Census population estimates of July 2017 indicated a total population of 10,468.

9.5.2.2 Location

Bound Brook is located in central Somerset County. The Township of Bridgewater is to the north and the Borough of South Bound Brook is to the south. Bound Brook flows through the Borough, which leads to the Raritan River. According to the U.S. Census Bureau, the Borough has a total area of 1.7 square miles.

As the southern portion of the Borough (including the downtown area) is a low-lying natural flood plain of the Raritan River. Bound Brook suffers occasional flooding after heavy rain. Flood control protection is now in place in Bound Brook to protect the borough from damaging floodwaters from the Raritan River. The flood levee is expected to provide protection from 150-year floods.

9.5.2.3 Brief History

The Borough was first settled in 1681, and was established near the Bound Brook stream of the same name, which flows into the Raritan River via the Green Brook on the east side of the borough. A wooden bridge over the Raritan River was erected as early as 1761 and named Queen's Bridge in 1767, later becoming a covered bridge. During the American Revolutionary War the bridge was used repeatedly by both sides including during the Battle of Bound Brook in 1777. In 1875 the wooden bridge was replaced by a steel pipe truss bridge, which was replaced by a steel girder bridge in 1984, still using the old pillars. The bridge was renovated and paved in 2007. The Battle of Bound Brook, one of the battles in the New York and New Jersey campaign during the American Revolutionary War, occurred on April 13, 1777, and resulted in a defeat for the Continental Army, who was routed by an estimated 4,000 troops under British command.

The Borough has been infamous for flooding of the Raritan River. A major flood in 1896 caused major fires. In September 1999, many structures in Bound Brook south of Route 28 were damaged or destroyed by floods from the Raritan River resulting from Hurricane Floyd. The flooding from this hurricane reinvigorated a long-planned effort called the Green Brook Flood Control Project that would protect Bound Brook from up to a 150 year flooding event from the Raritan River and its tributaries the Middle and Green brooks that comprise the western and eastern boundaries of the town. The highest flooding level since 1800 in Bound Brook was reached during Hurricane Floyd in September 1999 (42.13 feet, according to the U.S. Geological Survey). The second highest recorded level was after the April 2007 Nor'easter, when the Raritan River crested above 38 feet, at two inches above the level set during Tropical Storm Doria in 1971. Main Street was also flooded in October 1996. In 1999 and 2007 Bound Brook's downtown flooding led to out-of-control fires, which could not be extinguished due to lack of access for fire vehicles.

9.5.2.4 Governing Body Format

The Borough government consists of one mayor to ensure laws and ordinances are executed, preside over council meetings, who only votes to break ties, and veto power, and 6 council members who are the legislative body of the municipality.

9.5.2.5 Growth/Development Trends

In 2018, the Borough of Bound Brook noted the following major new development planned for the next 5 years in the municipality.

New Development/Potential Development in Municipality						
Property Name	**Type (Residential or Commercial)**	**No. of Structures**	**Address**	**Block and Lot**	**Known Hazard Zone**	**Description /Status**
Bound Brook Industrial Storage	Commercial	1	69 South Main Street	Bl. 1 Lt. 69	Flood Area	Has not broken ground
West Main Street Urban Renewal	Residential	1	7-15 West Main Street	Bl. 7 Lt. 28	None	Has broken ground
Meridia Downtown Urban Renewal	Residential	1	14-16 West Main Street	Bl. 1 Lts. 42 & 43	Flood Area	Has not broken ground
Talmage Commons	Residential	1	118 Talmage Avenue	Bl. 5 Lt. 12-18;; 18.01, 22-26, 26a	Unknown	Has not broken ground

To protect new development and substantial improvements, the Borough's current zoning and redevelopment plans encourage developers not to develop in hazardous areas. Their floodplain management ordinance regulates development in floodplains.

9.5.3 NATURAL HAZARD EVENT HISTORY SINCE 2014

Somerset County has a history of natural hazard events as detailed in Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The table below presents a summary of events that have occurred since the 2014 HMP to indicate the range and impact of natural hazard events in the community. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2014, refer to Section 5.0 of this plan.

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Cold/Wind Chill	N/A	N/A	January 4, 2014	No local damage reported
Strong Wind	N/A	N/A	January 6, 2014	No local damage reported
Flood	N/A	N/A	January 6, 2014	No local damage reported
Cold/Wind Chill	N/A	N/A	January 7, 2014	No local damage reported
Cold/Wind Chill	N/A	N/A	January 22, 2014	No local damage reported
Winter Storm	N/A	N/A	February 12, 2014	No local damage reported
Flood	N/A	N/A	February 22, 2014	No local damage reported
Strong Wind	N/A	N/A	March 12, 2014	No local damage reported
Flood	N/A	N/A	March 30, 2014	No local damage reported
Flood	N/A	N/A	April 1, 2014	No local damage reported
Thunderstorm Wind	N/A	N/A	April 15, 2014	No local damage reported
Flood	N/A	N/A	April 15, 2014	No local damage reported
Flood	N/A	N/A	April 30, 2014 to May 1, 2014	No local damage reported
Thunderstorm Wind	N/A	N/A	May 10, 2014	No local damage reported
Earthquake, Magnitude 1.9, 6 km N of Boonton (Montville Twp.)	N/A	N/A	May 31, 2014	No local damage reported
Earthquake, Magnitude 1.0, 13 km SW of Ramblewood, NJ (Laurel Springs Boro)	N/A	N/A	June 19, 2014	No local damage reported

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Thunderstorm Wind	N/A	N/A	July 2, 2014	No local damage reported
Heat	N/A	N/A	July 2, 2014	No local damage reported
Thunderstorm Wind	N/A	N/A	July 3, 2014	No local damage reported
Flash Flood	N/A	N/A	July 3, 2014	No local damage reported
Thunderstorm Wind	N/A	N/A	July 8, 2014	The gust front associated with a severe thunderstorm knocked down several large tree limbs in Bound Brook.
Earthquake, Magnitude 1.6, 3 km W of Jersey City, NJ (Kearny Town)	N/A	N/A	July 8, 2014	No local damage reported
Flood	N/A	N/A	July 16, 2014	No local damage reported
Earthquake, Magnitude 1.2, 4 km SW of Ringwood, NJ (Ringwood Boro.)	N/A	N/A	July 28, 2014	No local damage reported
Flash Flood	N/A	N/A	August 21, 2014	No local damage reported
Earthquake, Magnitude 1.3, 2 km S of Park Ridge, NJ (Woodcliff Lake Boro.)	N/A	N/A	September 3, 2014	No local damage reported
Flood	N/A	N/A	December 9, 2014	No local damage reported
Earthquake, Magnitude 1.9, 13 km SE of Twin Rivers, NJ (Millstone Twp.)	N/A	N/A	December 13, 2014	No local damage reported
Earthquake, Magnitude 1.5, 2 km SW of Clifton, NJ (Bloomfield Twp.)	N/A	N/A	December 28, 2014	No local damage reported
Cold/Wind Chill	N/A	N/A	January 7, 2015	No local damage reported
Flood	N/A	N/A	January 18, 2015	No local damage reported
Strong Wind	N/A	N/A	February 2, 2015	No local damage reported
Cold/Wind Chill	N/A	N/A	February 13, 2015	No local damage reported

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Strong Wind	N/A	N/A	February 15, 2015	No local damage reported
Cold/Wind Chill	N/A	N/A	February 15, 2015	No local damage reported
Cold/Wind Chill	N/A	N/A	February 16, 2015	No local damage reported
Cold/Wind Chill	N/A	N/A	February 20, 2015	No local damage reported
Cold/Wind Chill	N/A	N/A	February 24, 2015	No local damage reported
Flood	N/A	N/A	March 11, 2015	No local damage reported
Flood	N/A	N/A	March 14, 2015	No local damage reported
Earthquake, Magnitude 1.2, 2 km SW of Clifton, NJ (Bloomfield Twp.)	N/A	N/A	March 27, 2015	No local damage reported
Strong Wind	N/A	N/A	April 4, 2015	No local damage reported
Flash Flood	N/A	N/A	May 31, 2015	No local damage reported
Earthquake, Magnitude 1.2, 2 km N of Wanaque, NJ (Ringwood Boro.)	N/A	N/A	July 12, 2015	No local damage reported
Heat	N/A	N/A	July 19, 2015	No local damage reported
Earthquake, Magnitude 2.7, 3.5 km N of Bernardsville, NJ (Bernardsville Boro.)	N/A	N/A	August 14, 2015	No local damage reported
Flash Flood	N/A	N/A	August 19, 2015	No local damage reported
Flood	N/A	N/A	August 19, 2015	No local damage reported
Earthquake, Magnitude 1.4, 5 km WNW of Fairfield, NJ (Fairfield Twp.)	N/A	N/A	August 22, 2015	No local damage reported
Drought and Excessive Heat	N/A	N/A	April 2015 – September 2015	No local damage reported

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Combined effects of freeze, excessive heat, and drought	N/A	N/A	April 2016 – September 2016	No local damage reported
Earthquake, Magnitude 2.1, 2.4 km NW of Ringwood, NJ (Ringwood Boro.)	N/A	N/A	January 2, 2016	No local damage reported
Severe Winter Storm and Snowstorm (Blizzard)	DR-4264	Yes	January 22-24, 2016	All but four of NJ's 21 counties were declared during this event. Over $73 million of FEMA Public Assistance grant dollars were obligated statewide. Record snowfall occurred across most of the state, including a reported 28.0 inches in Bound Brook.
Earthquake, Magnitude 1.1, 1.1 km NW of Butler, NJ (Bloomingdale Boro.)	N/A	N/A	February 19, 2016	No local damage reported
Flash Flood	N/A	N/A	February 24, 2016	No local damage reported
Thunderstorm Wind	N/A	N/A	April 2, 2016	No local damage reported
Earthquake, Magnitude 0.8, 4.4 km N of Butler, NJ (Bloomingdale Boro.)	N/A	N/A	May 27, 2016	No local damage reported
Lightning	N/A	N/A	June 8, 2016	No local damage reported
Thunderstorm Wind	N/A	N/A	June 8, 2016	No local damage reported
Lightning	N/A	N/A	June 28, 2016	No local damage reported
Thunderstorm Wind	N/A	N/A	June 28, 2016	No local damage reported
Earthquake, Magnitude 1.1, 1 km NW of Butler, NJ (Butler Boro.)	N/A	N/A	July 4, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 8, 2016	No local damage reported
Flood	N/A	N/A	July 8, 2016	No local damage reported
Thunderstorm Wind	N/A	N/A	July 18, 2016	No local damage reported
Thunderstorm Wind	N/A	N/A	July 25, 2016	No local damage reported

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Thunderstorm Wind	N/A	N/A	July 25, 2016	No local damage reported
Thunderstorm Wind	N/A	N/A	July 25, 2016	Showers and thunderstorms developed in the afternoon and evening, and became severe in spots producing locally heavy rains and about 40,000 without power across the state. A few trees were uprooted due to thunderstorm wind gusts in Bound Brook Jct.
Flood	N/A	N/A	July 25, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 30, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported
Flash Flood	N/A	N/A	July 31, 2016	No local damage reported
Earthquake, Magnitude 0.8, 2.2 km SW of Clifton, NJ (Bloomfield Twp.)	N/A	N/A	July 31, 2016	No local damage reported
Earthquake, Magnitude 1.0, 2 km N of Wanaque, NJ (Wanaque Boro.)	N/A	N/A	August 9, 2016	No local damage reported
Earthquake, Magnitude 0.5, 1 km N of Butler, NJ (Bloomingdale Boro.)	N/A	N/A	August 9, 2016	No local damage reported
Earthquake, Magnitude 0.6, 5 km NE of Wanaque, NJ (Ringwood Boro.)	N/A	N/A	September 20, 2016	No local damage reported

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Earthquake, Magnitude 1.5, 2.6 km W of Belmar, NJ (Westville Boro.)	N/A	N/A	November 6, 2016	No local damage reported
Earthquake, Magnitude 2.0, 16.3 km E of Highlands, NJ (Middletown Twp.)	N/A	N/A	November 6, 2016	No local damage reported
Earthquake, Magnitude 1.31, 1.4 km S Morris Plains, NJ (Morris Plains Boro.)	N/A	N/A	March 25, 2017	No local damage reported
Flood	N/A	N/A	March 31, 2017	No local damage reported
Hail	N/A	N/A	May 14, 2017	No local damage reported
Hail	N/A	N/A	May 31, 2017	No local damage reported
Flood	N/A	N/A	June 24, 2017	No local damage reported
Flood	N/A	N/A	July 22, 2017	No local damage reported
Flood	N/A	N/A	August 22, 2017	No local damage reported
Flood	N/A	N/A	August 22, 2017	No local damage reported
Heavy Rain	N/A	N/A	August 23, 2017	No local damage reported
Earthquake, Magnitude 1.71, 3.7 km SW of Morris Plains, NJ (Morris Twp.)	N/A	N/A	September 25, 2017	No local damage reported
Earthquake, Magnitude 0.98, 2.7 km SW of Morris Plains, NJ (Morris Twp.)	N/A	N/A	September 30, 2017	No local damage reported
Flood	N/A	N/A	October 29, 2017	No local damage reported

Natural Hazard Event History (2014 to present)				
Type of Event	**FEMA Disaster # (if applicable)**	**County Designated?**	**Date**	**Approximate Damage Assessment**
Earthquake, Magnitude 1.38, 3.5 km NW of Keansburg, NJ (Keansburg Boro)	N/A	N/A	November 8, 2017	No local damage reported
Severe Winter Storm and Snowstorm (Blizzard)	DR-4368	Yes	March 6, 2018	Although all portions of the county experienced significant snowfall from this event, the higher amounts (around one and one half feet) occurred in the eastern sections of the county closer to the off shore low pressure system. Thundersnow also occurred in a few locations.

Note:
DR = Major Disaster Declaration
EM = Emergency Declaration
N/A = Not applicable

9.5.4 NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

The table below summarizes the vulnerability risk rankings of potential hazards of Bound Brook (updated in 2018).

Natural 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]**
Flood	1% Annual Chance: $26,900,000 0.2% Annual Chance: $250,900,000	Frequent	42	High
Severe Storm	100-Year MRP: $601,664 500-Year MRP: $3,782,216 Annualized Loss: $36,251	Frequent	39	High
Severe Winter Storm	1% of GBS: $10,244,590 5% of GBS: $51,222,950	Frequent	27	Medium
Earthquake	500-Year MRP: $1,890,325 2,500-Year MRP: $28,130,058 Annualized Loss: $29,074	Occasional	12	Low
Drought	Not available	Occasional	12	Low
Extreme Temperature	Not available	Frequent	27	Medium
Wildfire	Not available	Occasional	12	Low

Note:

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 Somerset County.

c. 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

d. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.

e. Loss estimates for the flood and earthquake hazards represent both structure and contents.

f. The HAZUS-MH earthquake model results are reported by Census Tract.

9.5.5 CAPABILITY ASSESSMENT

This section describes the following capabilities of the local jurisdiction:

- Legal and regulatory capability;
- Administrative and technical capability;
- Fiscal capability;
- Community resiliency;
- Community political capability; and
- Community classification.

9.5.5.1 Legal and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Borough of Bound Brook. The Borough reviewed its responses from the 2014 HMP and has updated its assessment as applicable.

Legal and Regulatory Capability			
Regulatory Tools (Codes, Ordinances, Plans)	**Do you have this? (Y or N)**	**Enforcement Authority**	**Code Citation** (Section, Paragraph, Page Number, Date of Adoption)
1) Building Code	Y	James Ayotte, Construction Official	International Building Code – New Jersey Edition, N.J.A.C. 5:24-3.14; 2/20/07
2) Zoning Ordinance	Y	Leticia Rodriguez; Zoning Officer	2004
3) Subdivision Ordinance	Y	Leticia Rodriguez; Zoning Officer	2004
4) NFIP Flood Damage Prevention Ordinance	Y	Green Brook Flood Control Commission; Code Enforcement/ Housing Officer, Joseph Costa	Chapter 32 of Borough Codes Flood Damage Prevention Ordinance; 9/10/07
4a) Cumulative Substantial Damages	Y	-	-
4b) Freeboard	N	-	-
5) Growth Management	Y	Code Enforcement/Housing Officer, Joseph Costa; Planning Board Chairman, Michael Witt	Through Land use Chapter 21 of the Borough Codes General in format;
6) Floodplain Management / Basin Plan	Y	Green Brook Flood Control Commission; Construction Official, James Ayotte	Green Brook Flood Control Plan, Floodplain Management Plan; 04/05

Legal and Regulatory Capability			
Regulatory Tools (Codes, Ordinances, Plans)	**Do you have this? (Y or N)**	**Enforcement Authority**	**Code Citation** (Section, Paragraph, Page Number, Date of Adoption)
7) Stormwater Management Plan/Ordinance	Y	Borough Engineer (Contractor), Robert Keady -T & M Associates	Stormwater Management Plan; Stormwater Ordinance 06-04; 2/7/05; 3/28/06
8) Comprehensive Plan / Master Plan/ General Plan	Y	Code Enforcement/Housing Officer, Joseph Costa	2007
9) Capital Improvements Plan	Y	Administrator; Hector Herrera	2007
10) Site Plan Review Requirements	Y	Code Enforcement/Housing Officer, Joseph Costa; Planning Board Chairman, Michael Witt	Chapter 21 of General Codes of Bound Brook; 2004
11) Open Space Plan	Y	-	-
12) Stream Corridor Management Plan	Y	-	-
13) Watershed Management or Protection Plan	Y	-	-
14) Economic Development Plan	Y	-	-
15) Comprehensive Emergency Management Plan	Y	OEM, Paul Lasko	Unknown
16) Emergency Response Plan	Y	OEM, Paul Lasko	11/12/2002
17) Post-Disaster Recovery Plan	N	-	-
18) Post-Disaster Recovery Ordinance	N	-	-
19) Real Estate Disclosure Requirement	Y	-	-
20) Other (Special Purpose Ordinances such as critical or sensitive areas)	Y	-	-

9.5.5.2 Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to Bound Brook. The Borough reviewed its responses from the 2014 HMP and has updated its assessment as applicable.

Administrative and Technical Capability		
Staff / Personnel Resources	**Available (Y or N)**	**Department / Agency / Position**
1) Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Consultant(T&M Associates) & Maser Consulting
2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Consultant
3) Planners or engineers with an understanding of natural hazards	Y	Consultant
4) NFIP Floodplain Administrator	Y	James Ayotte, Construction Official
5) Surveyor(s)	Y	Consultant
6) Personnel skilled or trained in GIS applications	Y	Consultant
7) Scientist familiar with natural hazards	Y	T&M Associates
8) Emergency Manager	Y	OEM Director
9) Grant Writer(s)	Y	Administrator/ Contractual
10) Staff with expertise or training in benefit/cost analysis	Y	T&M Associates

9.5.5.3 Fiscal Capability

The table below summarizes financial resources available to Bound Brook. The Borough reviewed its responses from the 2014 HMP and has updated its assessment as applicable.

Fiscal Capability	
Financial Resources	**Accessible or Eligible to use (Yes/No/Don't know)**
1) Community Development Block Grants (CDBG)	Y
2) Capital Improvements Project Funding	Y
3) Authority to levy taxes for specific purposes	Y
4) User fees for water, sewer, gas or electric service	N
5) Impact fees for homebuyers or developers of new development/homes	N
6) Incur debt through general obligation bonds	Y
7) Incur debt through special tax bonds	Y
8) Incur debt through private activity bonds	N
9) Withhold public expenditures in hazard-prone areas	N
10) State mitigation grant programs	Y
11) Other	-

9.2.5.4 Overall Capabilities

The Borough of Bound Brook's 2018 assessment of its overall capabilities to implement hazard mitigation strategies in each of the above categories, in addition to their local assessment of how these capabilities could be expanded and/or improved to reduce risk, is presented in the table below.

Overall legal and regulatory capability to implement hazard mitigation strategies	Overall technical capability to implement hazard mitigation strategies	Overall fiscal capability to implement hazard mitigation strategies	Overall administrative capability to implement hazard mitigation strategies	Community's willingness to enact policies and programs that reduce hazard vulnerabilities
High	High	Low	High	High
How these capabilities can be expand and/or improved to reduce risk				
The Borough will seek new opportunities to improve our strategies by reviewing educational technics for the public, updating plans and Borough Code addressing areas of hazard mitigation as needed, maintaining and update our software and hardware, and continue education for administrative employees.				

9.5.5.5 Community Classifications

The table below summarizes classifications for community program available to the Borough of Bound Brook. The Borough reviewed its responses from the 2014 HMP and has updated its assessment as applicable.

Community Classifications		
Program	**Classification**	**Date Classified**
Community Rating System (CRS)	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	4 res. 4 comm.	July 14, 2015
Public Protection	-	-
Storm Ready	-	-
FireWise	4	-

Notes:
- = Unavailable
N/A = Not applicable
NP = Not participating.

The classifications listed above relate to Bound Brook's ability to provide effective services to lessen its vulnerability to the natural 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 1,000 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/

9.5.6 MITIGATION STRATEGY

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

9.5.6.1 Past Mitigation Actions/Status

The status of all 2014 HMP initiatives was evaluated by the Borough of Bound Brook in 2018 and is presented in the following table. The community has not reported any changes to local priorities since the last version of the plan.

2014 HMP Initiative #	Mitigation Initiative Description	2014 HMP Priority	Hazard(s) Mitigated	Lead and Support Agencies	Status				Status Details	Relevance		Relevance Details
					Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated		Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	
BB1 (BB1)	Working with the army core of engineers to finish green brook flood control project	High	Flood	USACE	X						X	
BB2 (BB2)	Consider town wide storm warning system	High	All hazards	BBOEM			X				X	The Borough has Nixle in place
BB3 (BB3)	Update re-examination plan and include consideration of natural hazards	High	Mostly flood	Borough	X						X	The inclusion of natural hazards was included in the reexamination of the Master Plan
BB4 (BB4)	Investigation of stormwater flow and infiltration of sewer system	Medium	Flood	Borough/ City/ state			X		Will continue to address stormwater flow as the system deteriorates	X		This is an ongoing process being addressed

BB5 (BB5)	Support acquisition and/or relocation of structures in flood prone areas within the borough including relocation of ems facility out of hazard prone area	Medium	Flood	Bound brook		X			Ongoing project, will continue to look for grant opportunities and property buy in	X		Ongoing process
BB6 (BB6)	Pursue participation in CRS	High	Flood	Borough	X						X	
BB7	Continue to facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction.	High	All hazards	Borough emergency management			X			X		Although the Green Brook Flood Control Project is complete we will continue to facilitate public education for those still affected by possible flooding
BB8	Obtain and install backup power sources at critical facilities.	Medium	All Hazards	Borough Engineer		X				X		
BB9	Continue to participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes. including:	Medium	All Hazards	Borough Emergency Management			X			X		

BB10	Support ongoing updates of Comprehensive Emergency Management Plans	High	All Hazards	Borough Emergency Management	X					X		
BB11	Continue to create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	High	All Hazards	Borough Emergency Management			X		This is an ongoing process	X		This is an ongoing effort
BB12	Continue to work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	Medium	All Hazards	Borough Emergency Management			X		This is an ongoing process	X		This is an ongoing effort
BB13 (BB8)	Continue to support the implementation, monitoring, maintenance, and updating of this Plan (through participation in the 5 year Plan Update), as defined in Section 7.0	High	All Hazards	Borough Emergency Management			X		This is an ongoing process	X		This is an ongoing effort
BB14 (BB7)	Provide flood-related information to the NFIP in support of policy developed related to flooding.	High	Flood, Severe	Borough Engineer			X		The Borough will continue to monitor and stay compliant with NFIP and their applicable regulations	X		This is an ongoing effort
BB15	Review and archive elevation certificates as they are processed in the office	High	Flood, Severe Storm	Borough Engineer			X			X		

BB16	Promote the participation of Floodplain Administrators within the planning process and other activities.	Medium	Flood	Borough Engineer			X		The participation of Floodplain Administrators within the planning process will help to address areas of need	X		The Borough will continue to seek opportunities
BB17	Explore the possibility of implementing permit fee waivers for installation of backup power for private property.	H	Severe Storm	Borough Council			x		Will continue to address applicable properties	x		Ongoing project for applicable properties
BB18	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	H	Severe Storm	Borough Engineer			X		This is a continued effort with the Shade Tree Commission	X		This is continued effort

9.5.6.2 Hazard Vulnerabilities Identified

It is estimated that in the Borough of Bound Brook, 1,724 residents live within the 1% annual chance flood area (NFIP Special Flood Hazard Area). A total of $273,093,000 (16.1%) of the municipality's general building stock replacement cost value (structure and contents) is located within the 1% annual chance flood area. This has been markedly reduced since the 2014 HMP due to the USACE Green Brook Flood Damage Reduction Project.

There are 323 NFIP policies in the community and there are 193 policies located within the 1% annual chance flood area. FEMA has identified 465 Repetitive Loss (RL) properties including 28 Severe Repetitive Loss (SRL) properties in the municipality.

HAZUS-MH estimates that for a 1% annual chance flood, $26,900,000 (1.58%) of the municipality's general building stock replacement cost value (structure and contents) will be damaged, 300households may be displaced, 180people may seek short-term sheltering, and an estimated 3,829tons of debris could be generated.

Further information regarding the summary of the community's participation in the NFIP is provided in the table below.

NFIP Summary								
Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Polices in 1% Boundary (3)	# Polices in 0.2% - Boundary (3)	# Policies Outside the 0.2% Flood Hazard (3)
Bound Brook (B)	323	1,904	$62,901,604	465	28	193	75	55

Source:

(1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2 via NJDEP in August 2017 and are current as of March 31, 2017. Please note the total number of repetitive loss properties includes the severe repetitive loss properties.

(2) Information regarding total building and content losses was gathered from the claims file provided by FEMA Region 2 (current as of the Borough of Bound Brook).

(3) The policy locations used are based on the latitude and longitude provided by FEMA Region 2.

HAZUS-MH critical facility damage estimates for Bound Brook are provided below.

Critical Facility Damage Estimate											
Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event			
			1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent[(1)]	Percent Structure Damage	Percent Content Damage	Days to 100-Percent[(1)]	
Holy Family Academy	Bound Brook (B)	School		x	-	-	-	7.0	38.1	480	
Lamonte School Annex	Bound Brook (B)	School		x	-	-	-	9.4	65.7	630	
Lamonte School	Bound Brook (B)	School	x	x	-	-	-	7.5	41.8	480	
Green Brook Academy	Bound Brook (B)	School	x	x	9.9	67.4	630.0	17.5	79.6	720	
Green Brook Academy	Bound Brook (B)	School	x	x	6.3	34.2	480.0	12.5	71.5	630	
Green Brook Academy	Bound Brook (B)	School	x	x	11.4	70.4	630.0	19.7	82.7	720	
Bound Brook Hose Co No 1	Bound Brook (B)	Fire	x	x	26.2	99.6	720.0	36.3	100	720	
Bound Brook Relief Company No 4	Bound Brook (B)	Fire	x	x	19.3	87.0	630.0	34.1	100	720	
Bound Brook Rescue Squad	Bound Brook (B)	Fire	x	x	19.1	86.6	630.0	36.5	100	720	

Critical Facility Damage Estimate										
Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
			1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(1)	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(1)
Talmadge Commons Sr. Residence	Bound Brook (B)	Senior	x	x	15.0	87.2	NP	19.7	100	NP

Source: HAZUS-MH 4.0
Notes:
- = No loss (calculated by HAZUS-MH 4.0)
X = Facility located within the DFIRM boundary.
DFIRM = Digital Flood Insurance Rate Map
NA = Not applicable
Twp. = Township
(1) HAZUS-MH 4.0 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 4.0 User Manual).
(2) Please note 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.

Please refer to the Hazard Profiles in Section 5 of this plan for additional vulnerability information relevant to this jurisdiction.

9.5.7 PROPOSED HAZARD MITIGATION INITIATIVES

The list below represents a summary of community mitigation initiatives developed in 2018 as part of the most recent plan update. The Borough of Bound Brook has carried forward all but one of its 2014 HMP initiatives, and has identified no changes in local priorities since the last version of the plan in 2014. Detailed Action Worksheets are included only for NEW Mitigation Actions/Projects. Some of the identified mitigation initiatives in the table below 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. Please note that the Borough has opted to carry forward legacy initiative numbers from the 2014 plan, for internal municipal tracking purposes, formatted as: "2019# (2014#)".

Proposed Hazard Mitigation Initiatives														
2019 Initiative Number	Initiative Name	Initiative Description	New Initiative or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
BB1 (BB4)	Stormwater	Continue to update and maintain stormwater flow and infiltration of sewer system	Carried Forward	Existing	Flood	1, 6	Borough/ City/ state	M	In excess of $300,000	Unknown	DOF	M	Action, PR	Ongoing. Will continue to address stormwater flow as the system deteriorates. This is an ongoing process being addressed.
BB2 (BB7)	Public Education and Outreach	Continue to facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction.	Carried Forward	N/A	All hazards	5, 13	Borough Emergency Management	M	M	Operating budget	Long Term	H	Capability, PE	Ongoing. Although the Green Brook Flood Control Project is complete we will continue to facilitate public education for those still affected by possible flooding.
BB3 (BB9)	Regional projects and projects to support enhanced risk assessment	Continue to participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Date Management System (CDMS) which could be used for various planning and emergency management purposes	Carried Forward	N/A	All Hazards	3, 8	Borough Emergency Management	M-H	M-H	Operating budget	Long Term DOF	M	Capability, PR	Ongoing type of activity.

Proposed Hazard Mitigation Initiatives														
2019 Initiative Number	Initiative Name	Initiative Description	New Initiative or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
BB4 (BB11)	Mutual aid agreements	Continue to create/enhance/ maintain mutual aid agreements with neighboring communities for continuity of operations	Carried Forward	N/A	All Hazards	3, 7	Borough Emergency Management	M	Low	OPERATING BUDGET	Short Term	H	Capability, PR, ES	This is an ongoing process/effort.
BB5 (BB12)	Training/ certification of damage assessment team members	Continue to work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	Carried Forward	N/A	All Hazards	All	Borough Emergency Management	M	Medium	OPERATING BUDGET	Short-Long Term DOF	N	Capability, PR	This is an ongoing process/effort.
BB6 (BB13)	Mitigation Planning	Continue to support the implementation, monitoring, maintenance, and updating of this Plan (through participation in the 5 year Plan Update) as defined in Section 7.0	Carried Forward	New and Existing	All Hazards	All	Borough Emergency Management	H	Low – High (for 5 year update)	OPERATING BUDGET	On-going	H	Capability, PR	This is an ongoing process/effort.
BB7 (BB14)	NFIP	Continue to provide flood-related information to the NFIP in support of policy developed related to flooding.	Carried Forward	N/A	Flood, Severe Storm	5, 13	Borough Engineer	H	L-M	Operating Budget	Ongoing	H	Capability, PR, PE	The Borough will continue to monitor and stay compliant with NFIP and their applicable regulations. This is an ongoing process/effort.
BB8 (BB15)	Elevation Certificates	Continue to review and archive elevation certificates as they are processed in the office	Carried Forward	N/A	Flood, Severe Storm	1, 8	Borough Engineer	M	L	Operating Budget	On-going	H	Capability, PR	This is an ongoing process/effort.
BB9 (BB16)	Floodplain Administrator engagement	Continue to promote the participation of Floodplain Administrators within the planning process and other activities	Carried Forward	N/A	Flood	All	Borough Engineer	M	M	Operating Budget	Short	M	Capability, PR	The participation of Floodplain Administrators within the planning process will help to address areas of need. This is an ongoing process/effort. The Borough will continue to seek out opportunities.
BB10 (BB18)	Policies and programs - tree maintenance	Continue to implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	Carried Forward	N/A	Severe Storm	1, 2, 6, 7, 9, 11, 13	Borough Engineer	M	L	Municipal Budget	Short	H	Capability, PR	Ongoing. This is a continued effort with the Shade Tree Commission.

Proposed Hazard Mitigation Initiatives														
2019 Initiative Number	Initiative Name	Initiative Description	New Initiative or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
BB11	Outreach - web and social media	Continue to promote community education and awareness through accessibility of resources on website and other social media platforms	New Initiative	N/A	All	5, 12	Borough Emergency Management	M	M	Municipal Budget	Short	M	Capability, PE	New Initiative in the 2019 HMP
BB12	Soil erosion planning	Continue to develop and strengthen the soil erosion plan to decrease pollution in the Raritan River and damage to residential and commercial properties	New Initiative	Both	Flooding, Severe Storms	1, 3, 6, 7	Borough Engineer	M	M	Municipal Budget	DOF	M	Capability, PR	New Initiative in the 2019 HMP
BB13	Local ordinances and regulations	Continue to update local ordinances and regulations to facilitate future infrastructure projects and development	New Initiative	Both	All	1, 3, 6, 7	Borough Engineer	M	M	Municipal Budget	Short	M	Capability, PR	New Initiative in the 2019 HMP
BB14 (BB5)	Relocation of structures	Support acquisition and/or relocation of structures in flood prone areas within the borough including relocation of ems facility out of hazard prone area	Carried Forward	New	Flood	1, 4, 5, 8	Bound Brook	H	$200,000	FEMA grants	Short	M	Action/ Project, PP ES	Ongoing process. Ongoing project, will continue to look for grant opportunities and property buy-in.
BB15 (BB17)	Implementation of fee waivers	Explore the possibility of implementing permit fee waivers for installation of backup power for private property.	Carried Forward	N/A	Severe Storm	1, 2, 6, 7, 9, 11, 13	Borough Council	M	L	Municipal Budget	Short	H	Capability, PR	Ongoing process. Will continue to address applicable properties.

Notes:

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

Acronyms and Abbreviations:

ARC American Red Cross
DPW Department of Public Works
FEMA Federal Emergency Management Agency
HMA Hazard Mitigation Assistance
HMP Hazard Mitigation Proposal
N/A Not applicable
NFIP National Flood Insurance Program
NJOEM New Jersey Office of Emergency Management
NOAA National Oceanic and Atmospheric Administration

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
SRL = Severe Repetitive Loss Grant Program

Timeline:

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

SCPD Somerset County Planning Department
USACE U.S Army Corp of Engineers
USGS U.S. Geological Survey

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.

Notes (for Mitigation Type):

1. PR = Prevention: 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.
2. PP = Property Protection: 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.
3. PE = Public Education and Awareness: 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.
4. NR = Natural Resource Protection: 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.
5. SP = Structural Projects: 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.
6. ES = Emergency Services: 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.
7. Initiative= Initiatives are comprised of EVERYTHING your community wants to do or is doing in order to meet its mitigation goals. Initiatives include Capabilities, Actions and Projects.
8. Capability= Regulatory, administrative, technical, and fiscal staffing, tools and/or resources. Capabilities can be existing, or in need of further development/expansion.
8. Action/Project= Specific activities or projects that your community plans to undertake or is currently completing in order to achieve its long term mitigation goals. Actions/Projects can include, but are not limited to: structural projects, infrastructure projects, natural systems protection projects, or education and awareness programs.

9.5.8 PRIORITIZATION OF MITIGATION INITIATIVES

The table below summarizes the priority levels for each mitigation initiative, listed by number.

Prioritization of Mitigation Initiatives							
Initiative #	# of Objectives Met	Benefits	Costs	Do benefits equal or exceed costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
BB1 (BB4)	2	M	M	Y	Y	N	M
BB2 (BB7)	2	M	M	Y	Y	Y	H
BB3 (BB9)	2	M	M	Y	N	Y	M
BB4 (BB11)	2	M	L	Y	N	Y	H
BB5 (BB12)	All	M	M	Y	N	Y	M
BB6 (BB13)	All	M	M	Y	N	Y	H
BB7 (BB14)	2	H	H	Y	Y	N	M
BB8 (BB15)	2	H	L-M	Y	N	Y	H
BB9 (BB16)	All	M	M	Y	N	Y	M
BB10 (BB18)	7	M	L	Y	N	Y	H
BB11	2	M	M	Y	N	Y	M
BB12	4	M	M	Y	N	N	M
BB13	4	M	M	Y	N	Y	M
BB14 (BB5)	7	H	M	Y	Y	N	M
BB15 (BB17)	7	M	L	Y	N	Y	H

Notes:
H = High
L = Low
M = Medium
N/A = Not applicable
N = No
Y = Yes

9.5.8.1 Explanation of Priorities

Explanations of priority classifications used to assess the mitigation initiatives described in this annex are presented below:

High Priority = A project that meets multiple objectives (i.e., multiple hazards), where potential benefits exceed the costs. High-priority projects have funding secured or are an on-going projects that meet eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation (PDM) Grant Program. High-priority projects can be completed in the short term (1 to 5 years).

Medium Priority = A project that meets goals and objectives, where the potential benefits outweigh the costs. Funding for medium-priority projects has not been secured but these projects are eligible for grants

under HMGP, PDM, or other grant programs. These projects can be completed in the short term, once funding is completed. Medium-priority projects will become high-priority projects once funding is secured.

Low Priority = A project that will mitigate the risk of a hazard, where the potential benefits do not exceed the costs or have benefits that are difficult to quantify. Funding for low-priority projects has not been secured and these projects are not eligible for HMGP or PDM grant funding. The timeline for completion is considered long term (1 to 10 years). Low-priority projects may be eligible other sources of grant funding from other programs. A low-priority project could become a high-priority project once funding is secured as long as it could be completed in the short term.

Was prioritization of initiatives based on the above definitions? Yes

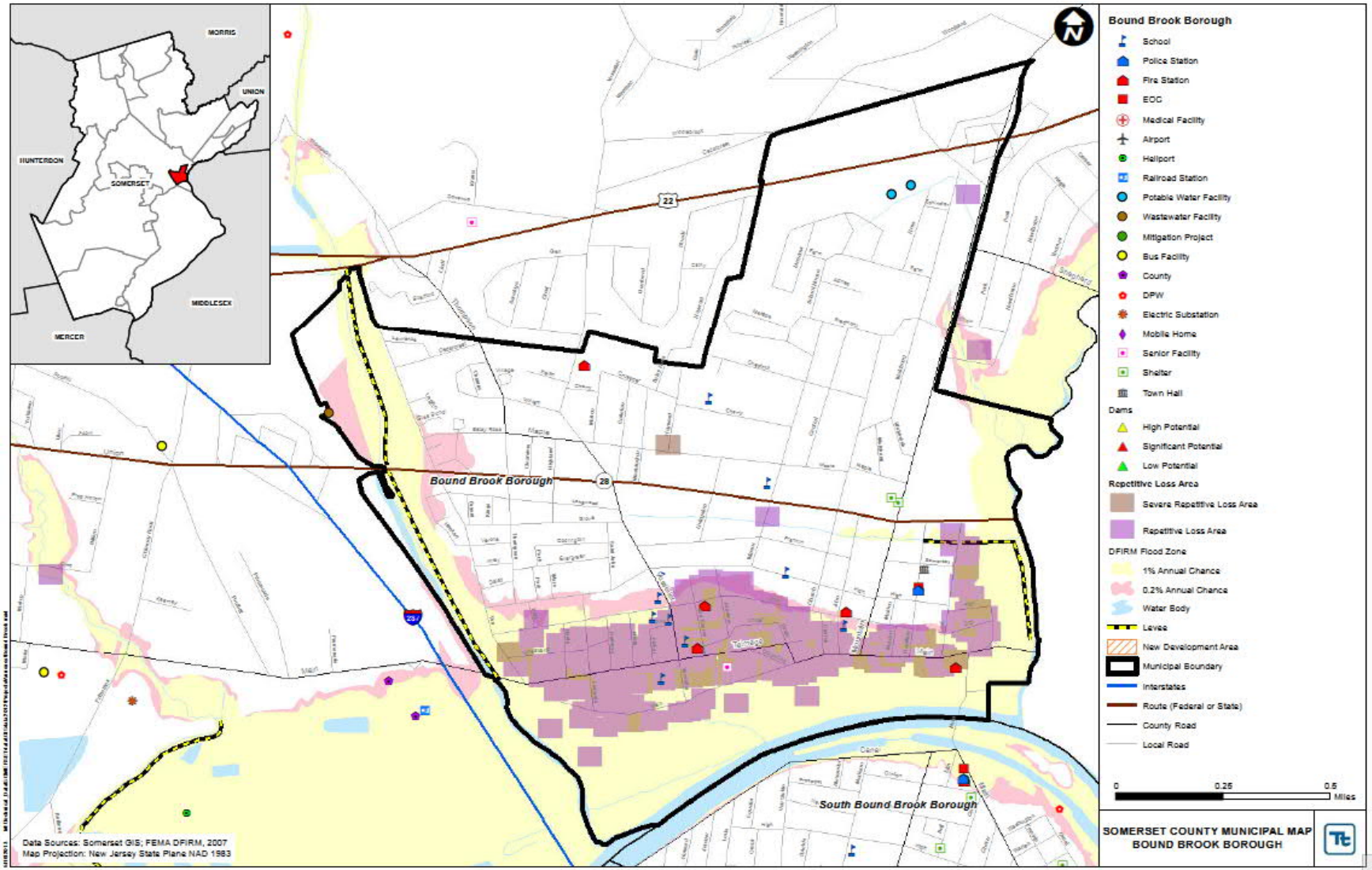
Was prioritization of initiatives based on parameters other than those stated above? Not applicable

9.5.9 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

The Borough of Bound brook has no additional risk vulnerabilities that need to be addressed at this time.

9.5.10 HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map illustrating the probable areas impacted within Bound Brook is provided on the following page. This map is based on the best data available at the time of the preparation of this plan, and is 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 Bound Brook has significant exposure. The planning area maps are provided in the hazard profiles within Section 5.4 of this plan.


MORRIS
UNION
HUNTERDON
SOMERSET
MIDDLESEX
MERCER
22
28
Bound Brook Borough
South Bound Brook Borough
Data Sources: Somerset GIS; FEMA DFIRM, 2007
Map Projection: New Jersey State Plane NAD 1983
Bound Brook Borough
School
Police Station
Fire Station
EOC
Medical Facility
Airport
Heliport
Railroad Station
Potable Water Facility
Wastewater Facility
Mitigation Project
Bus Facility
County
DPW
Electric Substation
Mobile Home
Senior Facility
Shelter
Town Hall
Dams
High Potential
Significant Potential
Low Potential
Repetitive Loss Area
Severe Repetitive Loss Area
Repetitive Loss Area
DFIRM Flood Zone
1% Annual Chance
0.2% Annual Chance
Water Body
Levee
New Development Area
Municipal Boundary
Interstates
Route (Federal or State)
County Road
Local Road
0
0.25
0.5
Miles
SOMERSET COUNTY MUNICIPAL MAP
BOUND BROOK BOROUGH

9.5.11 STATUS OF INCORPORATION OF MITIGATION PLANNING INTO EXISTING AND FUTURE PLANNING MECHANISMS

It is the intention of Borough of Bound Brook to incorporate mitigation planning as an integral component of daily municipal operations. The following table contains a list of planning mechanisms that have been utilized during prior plan maintenance cycles, and those that will be incorporated into municipal procedures during the upcoming plan maintenance cycle (2019-2024).

Status of Incorporation of Mitigation Planning into Existing and Future Planning Mechanisms				
Planning Mechanisms	**Reported Utilization (2009-2014)**	**Planned Utilization (2014-2019)**	**Reported Utilization (2014-2019)**	**Planned Utilization (2019-2024)**
Operating Budget When constructing upcoming budgets, hazard mitigation actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the hazard mitigation goals and objectives.	X		X	X
Capital Improvement Budget When constructing upcoming budgets, hazard mitigation actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the hazard mitigation goals and objectives.	X	X	X	X
Human Resource Manual Employee job descriptions may contain hazard mitigation actions.				
Building and Zoning Ordinances Prior to land use, zoning changes, or development permitting, the municipality will review the hazard mitigation plan and other hazard analyses to ensure consistent and compatible land use.	X		X	X
Comprehensive Land Use Plan When applicable, the municipality will incorporate hazard mitigation actions in the development and extent of the regulations.	X		X	X
Grant Applications Data and maps will be used as supporting documentation in grant applications.	X		X	X
Municipal Ordinances When updating municipal ordinances, hazard mitigation will be a priority.	X	X	X	X
Fire Plan The Hazard Mitigation Plan will be used as a resource for the development of future Fire Plans.	X		X	X
Capital Improvement Planning The municipality will establish a protocol to review current and future projects for hazard vulnerability. The municipality will incorporate hazard-resistant construction standards into the design and location of projects.		X	X	X
Day-to-Day Operations The municipality will incorporate hazard mitigation actions in daily operations and all projects.	X		X	X

Status of Incorporation of Mitigation Planning into Existing and Future Planning Mechanisms				
Planning Mechanisms	**Reported Utilization (2009-2014)**	**Planned Utilization (2014-2019)**	**Reported Utilization (2014-2019)**	**Planned Utilization (2019-2024)**
Local School Service Projects The municipality will work closely with the local school district and assist with community service projects for the service organizations. Several of the municipality's hazard mitigation actions can be implemented as a joint project with the school district.			X	X
Municipal Budget Adopted annually, the municipality will look at mitigation actions when allocating funding.		X	X	X
Economic Development The local economic development group will take into account information regarding identified hazard areas when assisting new businesses in finding a location.		X	X	X

9.5.12 ADDITIONAL COMMENTS

There are no additional comments at this time.

9.5.12 NFIP ADMINISTRATOR INPUT

The Borough provided the following NFIP Administrator Input in 2018, for inclusion in the 2019 HMP.

Adoption Date of your Current Floodplain Management Ordinance	Date of Entry into NFIP[1]	Position or Title of Your Jurisdiction's Designated Floodplain Manager/Administrator (may also be called NFIP Coordinator)	Is this person is a Certified Floodplain Manager?	Is floodplain management an auxiliary function?	Is your community in good standing with the NFIP?
09/10/2007	08/15/1983	CONSTRUCTION OFFICIAL (JAMES AYOTTE)	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No

Provide an explanation of NFIP administration services (i.e., permit review, GIS, education or outreach, inspections, engineering capability, etc.):
CONSTRUCTION OFFICIAL ADMINISTERS AND IMPLEMENTS THE FLOODPLAIN MANAGEMENT ORDINANCE BY GRANTING OR DENYING DEVELOPMENT PERMIT APPLICATIONS IN ACCORDANCE WITH ITS PROVISIONS.
Describe barriers to running an effective NFIP program in the community (if applicable):
NONE.

When was most recent FEMA Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?*	Is a CAV or CAC scheduled or needed?	Does the current floodplain management ordinance exceed FEMA or State minimum requirements? If so, describe how.	Is training of staff regarding NFIP issues planned?	Does your community intend to continue to enforce the floodplain management requirements including regulating new construction in Special Flood Hazard Areas (SFHAs)?	Does your community participate in the CRS? If so, state your Class.	Does your community intend to continue its participation in the CRS program?	If your community is not currently participating in the CRS program, are you intending to initiate the process during the next planning cycle?
2016	[ ] Yes [X] No	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No	[ ] Yes* [X] No * Class____	[ ] Yes [X] No	[ ] Yes [X] No

*Describe any outstanding compliance issues (i.e., current violations):
NO KNOWN COMPLIANCE ISSUES. LARGE PORTIONS OF BOUND BROOK WERE REMOVED FROM THE MAPPED 100-YEAR FLOOD ZONE IN JULY 2017

Provide an explanation of your local floodplain permitting process:
ALL DEVELOPMENT PERMITS ARE REVIEWED TO DETERMMINE: WHETHER THE PERMIT REQUIREMENTS OF THE ORDINANCE HAVE BEEN SATISFIED; WHETHER APPLICABLE STATE/FEDERAL/LOCAL PERMITS HAVE BEEN OBTAINED; AND IF THE PROPOSED DEVELOPMENT IS LOCATED IN THE FLOODWAY, ASSURE THAT THE ENCROACHMENT PROVISIONS OF PART 5.3[1] OF ORDINANCE ARE MET.

Does your community intend to continue floodplain identification and mapping services including any local requests for map updates?	Does your community intend to initiate/continue the buyouts of repetitive loss properties?	Does your community intend to commit staff or resources to improve local mapping or code administration in the future?	Does your community intend to provide local outreach to promote the sale of flood insurance?	Does your community intend to participate in RiskMAP meetings and planning initiatives?	Does your community intend to continue to implement structural improvements to mitigate against flooding - culverts, drainage basins, etc.?	Does your community intend to continue to implement home improvement programs designed to minimize basement flooding?	Does your community intend to continue to implement roadway improvements to reduce damage from future flooding events?	Does your community intend to implement plans and programs in coordination with a local or regional drainage/sewer authority?
[X] Yes [ ] No	[ ] Yes [X] No	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No

Does your community intend to adopt the new FEMA Advisory Base Flood Elevations?	As Floodplain Manager, did you (or your predecessor at the time) actively participate in the development of the initial Hazard Mitigation Plan?	As Floodplain Manager, are you actively participating in the development of this Hazard Mitigation Plan Update?	Have there been any changes to your community's local floodplain management program since the last version of the plan in 2014?
[X] Yes [ ] No	[X] Yes [ ] No	[X] Yes [ ] No	[ ] Yes * [X] No

* If you answered "yes", that there have been changes to your local program since 2014, please describe:
N/A
Provide a description of your community assistance and monitoring activities:
NOTIFY ADJACENT COMMUNITIES AND STATE AGENCIES PRIOR TO ANY ALTERATION OF A WATERCOURSE; MAINTAIN WATERCOURSES SO FLOOD CARRYING CAPACITY IS MAINTAINED; INTERPRETATION OF FIRM BOUNDARIES; MONITOR ALL NEW OR SUBSTANTIAL IMPROVEMENTS OF STRUCTURES TO ENSURE COMPLIANCE AND MAINTAIN INSPECTION REPORTS.

NFIP participating communities are required to update/revise their floodplain management ordinance to ensure that it complies with the latest FEMA regulations. Will your community continue to commit to this program requirement?	NFIP participating communities are also required to update/revise their floodplain management ordinance to be consistent with the latest FIRMs. Will your community continue to commit to this program requirement?
[X] Yes [ ] No	[X] Yes [ ] No