



9.2 Township of Bass River

This section presents the jurisdictional annex for the Township of Bass River.

9.2.1 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
David Cope, Emergency Management Coordinator Address: P.O. Box 307, New Gretna, NJ 08224 Phone: 609.839.9830 Email: cope2771@aol.com	Amanda Somes, Municipal Clerk Address: P.O. Box 307, New Gretna, NJ 08224 Phone: 609.296.3337 ext. 6 Email: bassriverclerk@comcast.net

9.2.2 Municipal Profile

The Township of Bass River is a large, 72 square mile township on the eastern edge of Burlington County in the New Jersey Pinelands. New Gretna is the historic business and residential center of the Township. According to the 2010 Census, the community's population was 1,443.

Growth/Development Trends

The Township of Bass River did not note any recent residential/commercial development since 2013 or any major residential or commercial development, or major infrastructure development planned for the next five years in the municipality.

9.2.3 Natural Hazard Event History Specific to the Municipality

Burlington 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 2013 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 9.2-1. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Burlington County Designated?	Summary of Damages/Losses
April 30-May 1, 2014	Heavy Rain and Flooding	No	Downed trees and wires, power outages, road closures
June 23, 2015	Severe Storm (DR-4231)	Yes	Downed trees and wires, power outages, road closures
January 22-24, 2016	Severe Winter Storm (DR-4264)	Yes	Downed trees and wires, power outages, road closures

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable





9.2.4 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 Township of Bass River. 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 Township of Bass River.

Table 9.2-2. 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
Coastal Erosion	RCV Exposed to CE Hazard Area: \$37,606,296	Occasional	12	Low
Drought	Damage estimate not available.	Frequent	36	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$1,492,383 2,500-Year GBS: \$21,157,418	Occasional	28	Medium
Flood	1% Annual Chance: \$328,406,175	Frequent	48	High
Landslide	RCV Exposed to Landslide Hazard Area \$0	Rare	6	Low
Severe Storm	100-year MRP: \$1,086,271 500-year MRP: 1,198,399 Annualized: 63,734	Frequent	48	High
Severe Winter Weather	1% GBS: \$5,924,797 5% GBS: \$29,623,983	Frequent	51	High
Wildfire	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$266,341,415	Occasional	20	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 Township of Bass River.





Table 9.2-3. 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)
Township of Bass River	68	59	\$2,085,531.76	4	0	4

Source: FEMA Region 2 2017, 2018

- (1) Repetitive loss and severe repetitive loss statistics provided by FEMA Region 2 and are current as of 10/31/2017. Policy and claims statistics current as of 9/30/2018
Please note the total number of repetitive loss properties does not include the severe repetitive loss properties. The number of claims represents claims closed by 9/30/2018.
- (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 are based on the addresses geocoded from the FEMA Region 2 policy file – 10/31/2017.

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.

Critical Facilities

The table below presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities in the community as a result of a 1-percent annual chance flood event.

Table 9.2-4. 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
252 - Sec No5 - New Gretna - Calcium Chloride Tank	County Building	-	X	-	-
368 - Communications Equipment-New Gretna-Viking Yacht-O	County Building	-	X	-	-
72 - Mosquito Pesticide Trailer-New Gretna	County Building	-	X	-	-
73 - Highway Maintenance - New Gretna	County Building	-	X	-	-
74 - Highway Maint Salt Shed - New Gretna	County Building	-	X	-	-
75 - Highway Maint Gas Station - New Gretna	County Building	X	X	-	-
Viking Yacht Co. Corp.	Chemical	-	X	-	-

Source: FEMA 2017, Burlington County

Note: - = Damages not calculated by HAZUS-MH v4.0

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- Bass River – flooding occurs at Bass River near Allens Dock at U.S. Route 9; at East Branch Bass River near Stage Road; and the Merrygold Branch of Wading River at Hammonton Road. All these flooding problems are affected by tidal flooding from the Great Bay. Identify any specific problems, solutions or ideas brought to the planning process from the public or local authorities (specific to the municipality).





9.2.5 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 Township of Bass River.

Table 9.2-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	Yes - 2009	Local	Planning	Master Plan
Capital Improvements Plan	No			
Floodplain Management / Basin Plan	Yes - 2013	Local	Planning	Floodplain Management Plan
Stormwater Management Plan	Yes - 2010	Local	Planning	Stormwater Management Plan
Open Space Plan	No			
Stream Corridor Management Plan	Yes – 1985	Local	Planning	Stream Corridor Management Plan
Watershed Management or Protection Plan	Yes - 2007	Local	Planning	Watershed Management or Protection Plan
Economic Development Plan	Yes – 2004	Local	Planning	Economic Development Plan
Comprehensive Emergency Management Plan	No	-	-	-
Emergency Operation Plan	Yes - 2012	Local	OEM	Emergency Operation Plan
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	-	-	-	-
Regulatory Capability				
Building Code	Yes	State & Local	Zoning	Title 15
Zoning Ordinance	Yes	Local	Zoning	Title 17
Subdivision Ordinance	Yes	Local	Zoning	Title 16
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Zoning	Chapter 15.24
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes	State, Local	-	-



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.)
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Planning	Title 16
Stormwater Management Ordinance	Yes	Local	-	Chapter 13.08
Municipal Separate Storm Sewer System (MS4)	Yes	State, Local	-	Chapter 13.08
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	Real Estate Agent	Seller's Property Condition Disclosure Statement
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	Yes – 1983	Regional	Pinelands Commission	CMP 1983

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Township of Bass River.

Table 9.2-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Bass River Township Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Surrounding municipalities
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Guzzi Engineering
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Guzzi Engineering
Planners or engineers with an understanding of natural hazards	Yes	Guzzi Engineering
NFIP Floodplain Administrator (FPA)	Yes*	Twp. Engineer
Surveyor(s)	Yes	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	Yes	-
Emergency Manager	Yes	OEM Coordinator



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Grant writer(s)	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	-

Fiscal Capability

The table below summarizes financial resources available to the Township of Bass River.

Table 9.2-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	No
Authority to levy taxes for specific purposes	No
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	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Community Classifications

The table below summarizes classifications for community program available to the Township of Bass River.

Table 9.2-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	-	-
Storm Ready Certification	No	N/A	N/A
Firewise Communities classification	Yes	-	-
Natural disaster/safety programs in/for schools	No	-	-
Organizations with mitigation focus (advocacy group, non-government)	No	-	-
Public education program/outreach (through website, social media)	No	-	-



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public-private partnership initiatives addressing disaster-related issues	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The 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 <https://www.isomitigation.com/ppc/>
- The National Weather Service Storm Ready website at <http://www.stormready.noaa.gov/index.html>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

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

Table 9.2-9. 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 (FPA)

Dan Guzzi, Twp. Engineer

Flood Vulnerability Summary

At this time, the municipality does not maintain a list or inventory of properties that have been flood damaged, and does not have a record of the number of homes that may have been damaged during Hurricane Sandy or other storm events. The municipality does not make sustainable damage estimates and does not have a count for a given storm event. Funding sources for potential mitigated properties can include local budget or grant funding with aid from the property owner.

Resources

The FPA is the sole person assuming the responsibilities of floodplain administration for the Township. NFIP administration services and functions provided by the FPA include, permit review, inspections, and education and outreach. The Township provides education and outreach to the community regarding the flood hazard; information and links to flood maps and insurance information is available on the website. The FPA is adequately supported and trained to fulfill the responsibilities as the FPA but would consider attending continuing education and/or certification training on floodplain management if it were offered in the County.

Compliance History

The Township is currently in good standing with the NFIP; however, the date of the most recent compliance audit is unknown.

Regulatory

The Township's floodplain management regulations/ordinances meet the FEMA and State minimum requirements. The planning board and zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has considered joining the Community Rating System (CRS) and would attend a CRS seminar if offered locally.

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.

Regulatory and Enforcement (Ordinances)

NJDEP Municipal Stormwater Regulation Program: New Jersey Department of Environmental Protection issued the statewide municipal stormwater permits that became effective January 1, 2018 and authorizes stormwater discharges from municipal separate storm sewer systems (MS4s) to the waters of the state. Municipalities that have been issued a Notice of Authorization (NOA) to discharge under the Tier A (urban and coastal municipalities) or Tier B (more rural municipalities) master general permit must develop and implement a stormwater program. The first NJPDES permit authorizing discharges from MS4 municipalities became effective in 2004 (subsequently renewed in 2009 and now in 2018), so most municipalities have developed stormwater programs; however, the 2018 permit requires the municipalities to maintain a stormwater management plan and enforce stormwater ordinances to address development and redevelopment consistent with the Stormwater Management rules at N.J.A.C 7:8, as well as implementation of additional requirements. For



more information on the municipal stormwater regulation program, see www.nj.gov/dep/dwq/msrp_home.htm. Bass River is a Tier B municipality.

Flood Damage Prevention: The purpose of the flood damage prevention ordinance (Chapter 15.24 of the municipal code) is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designated to:

- Protect human life and health.
- Minimize expenditure of public money for costly flood control projects.
- Minimize the need for rescue and relief effort associated with flooding and generally undertaken at the expense of the general public.
- Minimize prolonged business interruptions.
- Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges, located in areas of special flood hazard.
- Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- Ensure that potential buyers are notified that property is in an area of special flood hazard.
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

Operational and Administration

Bass River Township has the following boards and commissions:

- Environmental Commission
- Planning/Zoning Board
- Emergency Management
- Public Works and Property (Protection of Beaches from Erosion, Parks, Docks and Piers)

Funding

The Township has access to Capital Improvements project funding and is eligible to apply for Community Development Block Grants, FEMA Pre-Disaster Mitigation or Flood Mitigation Assistance grant funding, or other state/federal grants to fund mitigation projects.

Education and Outreach

Bass River Township has a website where one can access information about Township departments, government, community, business, minutes and agendas, ordinances, forms and documents, and see news and announcements and the Township calendar with upcoming meetings. The Township has information on the homepage for residents to search for FEMA flood data and on flood insurance premiums.

9.2.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2013 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 9.2-10. Status of Previous Mitigation Actions

Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
BR-1	Install new infrastructure at the end of Amasas Landing Rd.	Bass River OEM and Board of Commissioners	In Progress	Permits have been issued. Construction is next phase. Project is 60% complete	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Construct project
BR-2	Install generators in critical facilities, such as the municipal building, OEM building, firehouse, and grammar school, which is our shelter	Board of Commissioners and OEM	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue
BR-3	Public Outreach/Education in storm and flood preparedness and notification procedures.	OEM Board of Commissioners	No Progress	Budget and personnel constraints have restricted movement of project.	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding
BR-4	Provide planning and engineering information to residents and businesses. Include information on acquisition, elevation, and relocation, structural modifications, flood proofing, or relocation.	Township Engineer Board of Commissioners OEM	No Progress	Budget constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding
BR-5	Evaluate and repair flood prone areas on US#9, CR 542 and Maple Ave.	NJ DOT County DOT	In Progress	Route 9 with DOT is progressing with replacing some prone area bridges. No movement from County DOT	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding
BR-6	Evaluate benefits of participating in CRS program	Twp. Committee, Planning, OEM,	In Progress	Budget constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding



Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Floodplain Adm.			
BR-7	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> • Disaster preparedness • Hazard mitigation 	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	In Progress	Budget constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding
BR-8	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	OEM with support from County, NJOEM and FEMA	In Progress	Budget constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding
BR-9	Obtain and install backup power sources at all critical facilities to include shelters.	Municipality engineering, OEM with support from County, NJOEM and FEMA	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue 2. Complete
BR-10	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	Municipal Government, OEM with support from County, NJOEM, FEMA and	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue 2. Ongoing capability



Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		surrounding communities			
BR-11	Continue to support the implementation, monitoring, maintenance, and updating of this Plan through participating in the 5-year Plan Update	Municipal Government, OEM with support from Planning Partners, County Planning, NJOEM, FEMA	Complete	Complete	1. Discontinue 2. Ongoing capability
BR-12	Continue to promote the participation of Floodplain Administrator within the planning process and other related activities.	Municipal Government with support from County, NJOEM and FEMA	Complete	Complete	1. Discontinue 2. Ongoing capability
BR-13	Enhance resilience to severe storms by joining the NOAA "Storm Ready" program.	OEM with support from County, NJOEM and FEMA	No Progress	Budget constraints	1. Include in 2019 HMP 2. Determine benefit of joining the program
BR-14	Provide public education and outreach on proper installation and/or use of backup power	Municipal Clerk, OEM and government	Complete	Complete	1. Discontinue. 2. Project complete



Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
BR-15	Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies.	Municipal DPW	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue 2. Ongoing capability
BR-16	Evaluate benefits of participating in the Firewise Program	Municipal OEM	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue 2. Ongoing capability



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Township of Bass River has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

- None identified by the municipality.

Proposed Hazard Mitigation Initiatives for the Plan Update

The municipality participated in a mitigation action workshop in March 2018 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 9.2-11 summarizes the comprehensive-range of specific mitigation initiatives the Township of Bass River would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

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

Table 9.2-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.2-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Critical Facility (Yes / No)	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
BR- 1 (former BR-1)	Install new infrastructure at the end of Amasas Landing Rd.	Yes	All	1, 2	Bass River OEM and Board of Commissioners	High	High	FEMA HMA	Short Term DOF	High	SIP	SP
BR- 2 (former BR-3)	Public Outreach/Education in storm and flood preparedness and notification procedures.	N/A	All	1, 2, 5	OEM Board of Commissioners	High	Low	FEMA Board of Commissioners	Short Term	Medium	EAP	PI
BR- 3 (former BR-4)	Provide planning and engineering information to residents and businesses. Include information on acquisition, elevation, and relocation, structural modifications, flood proofing, or relocation.	N/A	Flood	1, 2, 5	Township Engineer Board of Commissioners OEM	Medium	N/A	FEMA HMA, CDBG	Long Term DOF	Medium	LPR	PR
BR- 4 (former BR-5)	Evaluate and repair flood prone areas on US#9, CR 542 and Maple Ave.	N/A	Flood	1, 2	NJ DOT County DOT	N/A	Medium	NJ DOT County DOT, Municipal DPW	Long Term DOF	Medium	SIP	PP
BR- 5 (former BR-7)	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> • Disaster preparedness • Hazard mitigation 	N/A	All hazards	1, 2, 5	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term	High	EAP	PI
BR-6 (former BR-8)	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	N/A	All Hazards	1, 2, 6	OEM with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	LPR, NSP	ES PR
BR- 7 (former BR-13)	Enhance resilience to severe storms by joining the NOAA “Storm Ready” program.	N/A	Severe Storm	1, 2, 5, 6	OEM with support from County, NJOEM and FEMA	Medium	Low	Municipal Budget	Short Term DOF	Medium	EAP	PI





Table 9.2-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Critical Facility (Yes / No)	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
BR-8	Coordinate with the facility managers at County Buildings in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.	Yes	All Hazards	1, 2, 6	Municipality with support from County	High	High	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	SP, PP
BR-9	Coordinate with the facility managers at Viking Yacht Co. Corp in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.	Yes	All Hazards	1, 2, 6	Municipality with support from County	High	High	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	SP, PP
BR-10	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community.	No	All Hazards	All	Municipality	High	Low	Municipal Budget	Short Term, Depending on update schedule	High	LPR	PR





Table 9.2-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Critical Facility (Yes / No)	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
BR-11	<p>The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:</p> <ul style="list-style-type: none"> Bucto Land Route 9 <p>Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.</p>	No	Flood	1, 2	Municipality with support from County	High	High	Grant funding; Municipal budget	Short	High	SIP	PP

Notes:

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

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

Acronyms and Abbreviations:

- 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
- 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 in 2015)
- SRL Severe Repetitive Loss Grant Program (discontinued in 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.

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

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.



Table 9.2-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
BR- 1 (former BR-1)	Install new infrastructure at the end of Amasas Landing Rd.	1	1	1	1	1	1	1	0	0	1	1	1	1	0	11	High
BR- 2 (former BR-3)	Public Outreach/Education in storm and flood preparedness and notification procedures.	1	1	1	1	0	1	1	0	1	1	1	0	1	0	10	Medium
BR- 3 (former BR-4)	Provide planning and engineering information to residents and businesses. Include information on acquisition, elevation, and relocation, structural modifications, flood proofing, or relocation.	1	1	1	1	1	0	0	0	1	1	1	0	1	0	9	Medium
BR- 4 (former BR-5)	Evaluate and repair flood prone areas on US#9, CR 542 and Maple Ave.	1	1	1	1	1	1	0	0	1	1	1	0	1	0	10	Medium
BR- 5 (former BR-7)	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> Disaster preparedness Hazard mitigation 	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High



Table 9.2-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
BR-6 (former BR-8)	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	0	0	1	1	1	1	1	0	0	1	1	1	1	0	9	Medium
BR- 7 (former BR-13)	Enhance resilience to severe storms by joining the NOAA “Storm Ready” program.	1	0	0	1	1	1	0	0	1	1	1	0	1	0	8	Medium
BR-8	Coordinate with the facilities managers at County Buildings in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.	0	1	1	1	1	1	-1	0	1	1	0	0	1	0	7	Medium
BR-9	Coordinate with the facilities managers at Viking Yacht Co. Corp in the Township to support the mitigation of vulnerable structures via retrofit	0	1	1	1	1	1	-1	0	1	1	0	0	1	0	7	Medium



Table 9.2-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
	(e.g. elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.																
BR-10	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community.	1	1	1	1	1	1	1	0	0	1	1	0	1	0	10	High
BR-11	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically	1	1	0	1	1	1	-1	0	0	1	0	1	1	0	8	High



Table 9.2-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
	<p>those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:</p> <ul style="list-style-type: none"> Bucto Land Route 9 <p>Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.</p>																

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions.



9.2.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.2.8 Hazard Area Extent and Location

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

9.2.9 Additional Comments

None at this time.



Figure 9.2-1. Township of Bass River Hazard Area Extent and Location Map 1

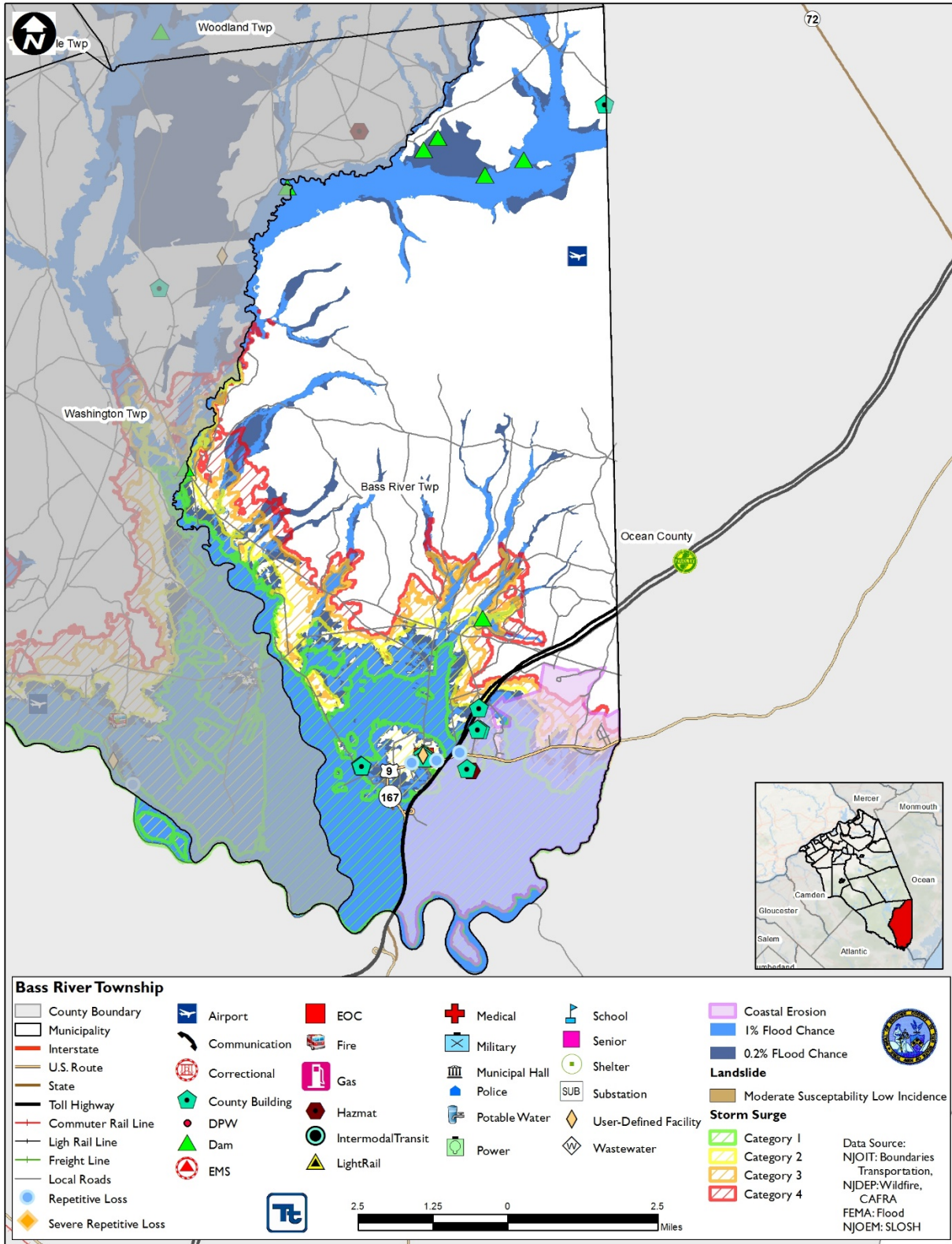
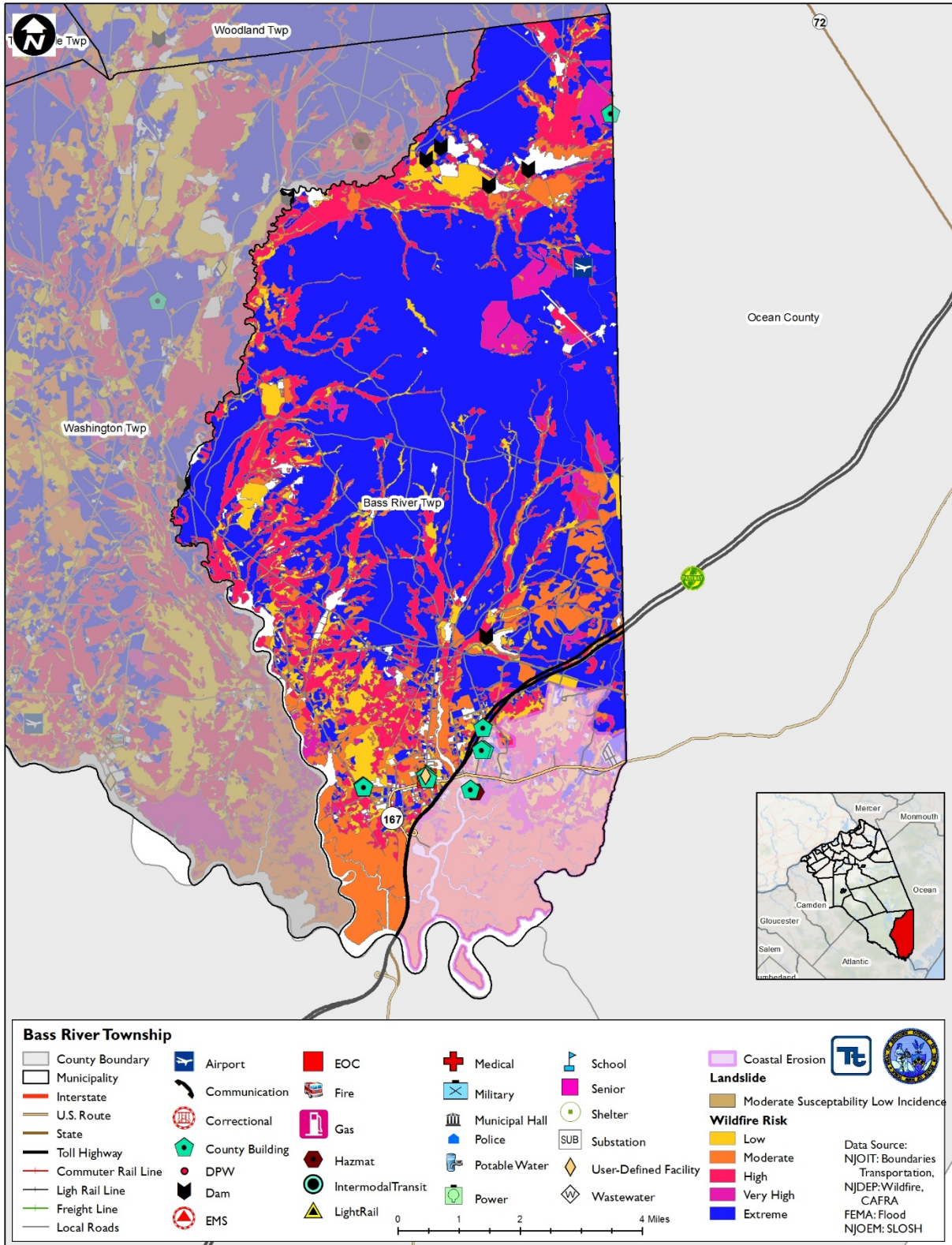




Figure 9.2-2. Township of Bass River Hazard Area Extent and Location Map 2





Action Number: BR- 1 (former BR-1)
Mitigation Action Name: Install new infrastructure at the end of Amasas Landing Rd.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Out-of-date and run-down infrastructure .
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action - current problem continues 2. Utilize green infrastructure and open space to maintain natural floodplain function – May be insufficient space for adequate capacity 3. Retrofit existing infrastructure. – This may be a short-term fix, but not a long term solution.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Now that funding is secured, construction to be completed for the project.
Mitigation Action Type	SIP
Goals Met	1, 2
Critical Facility (Y/N)	Yes
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Bass River OEM and Board of Commissioners
Local Planning Mechanism	SP
Potential Funding Sources	FEMA HMA
Timeline for Completion	Short Term DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 1/31/18 Status: Permits have been issued. Construction is next phase. Project is 60% complete



Action Number:

BR- 1 (former BR-1)

Mitigation Action Name:

Install new infrastructure at the end of Amasas Landing Rd.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Secured funding to complete project
Environmental	0	
Social	0	
Administrative	1	The township has the administrative capability to complete project
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (H/M/L)	High	



Action Number: BR- 4 (former BR-5)
Mitigation Action Name: Evaluate and repair flood prone areas on US#9, CR 542 and Maple Ave.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Frequent flooding events have reduced the structural integrity of these roadways.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action - current problem continues 2. Rebuild all roadways. – Most likely not cost effective and
Action/Project Intended for Implementation	
Description of Selected Action/Project	Improve drainage and road condition for floodprone areas of US#9, CR 542, and Maple Ave
Mitigation Action Type	SIP
Goals Met	1, 2
Critical Facility (Y/N)	N/A
Benefits (losses avoided)	N/A
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	NJ DOT County DOT
Local Planning Mechanism	PP
Potential Funding Sources	NJ DOT County DOT, Municipal DPW
Timeline for Completion	Long Term DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 1/31/18 Status: Route 9 with DOT is progressing with replacing some prone area bridges. No movement from County DOT



Action Number:

BR- 4 (former BR-5)

Mitigation Action Name:

Evaluate and repair flood prone areas on US#9, CR 542 and Maple Ave.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduce or eliminate roadway flooding, allowing residents and emergency personnel to access all areas of the township during a flood
Property Protection	1	Reduce or eliminate damage to roadways from flood events
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	Need grant funding to complete project
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (H/M/L)	Medium	



Action Number:

BR-8

Mitigation Action Name:

Coordinate with the facility managers at County Buildings in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage.
 Phase 1: Identify most cost-effective mitigation option
 Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	Structures located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action - current problem continues 2. Floodproof structures. – Recurring problems with isolated structures may exist in flood conditions 3. Install emergency generator. – May not reduce flood risk but will reinforce continuity of operations.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Identify most cost-effective mitigation option. Work with facility manager to implement selected action based on available funding and local match ability.
Mitigation Action Type	SIP
Goals Met	1, 2, 6
Critical Facility (Y/N)	Yes
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Municipality with support from County
Local Planning Mechanism	SP, PP
Potential Funding Sources	HMA Grants, Municipal Budget
Timeline for Completion	Short Term DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 5/31/18 Status: New Action



Action Number:
Mitigation Action Name:

BR-8

Coordinate with the facility managers at County Buildings in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage.
 Phase 1: Identify most cost-effective mitigation option
 Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Increase awareness of property owner to the potential flood impacts their structure might sustain during flood events
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	The township has the administrative capabilities to complete this project
Multi-Hazard	0	Flood
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	



Action Number:

BR-9

Mitigation Action Name:

Coordinate with the facility managers at Viking Yacht Co. Corp in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage.
 Phase 1: Identify most cost-effective mitigation option
 Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action - current problem continues 2. Floodproof existing structures – May not necessarily reduce risk. 3. Construct floodwalls to stop flood issues. – Will most likely interrupt natural floodplain function.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Identify most cost-effective mitigation option. Work with facility manager to implement selected action based on available funding and local match ability.
Mitigation Action Type	SIP
Goals Met	1, 2, 6
Critical Facility (Y/N)	Yes
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Municipality with support from County
Local Planning Mechanism	SP, PP
Potential Funding Sources	HMA Grants, Municipal Budget
Timeline for Completion	Short Term DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 5/31/18 Status: New Action



Action Number:
Mitigation Action Name:

BR-9

Coordinate with the facility managers at Viking Yacht Co. Corp in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage.
 Phase 1: Identify most cost-effective mitigation option
 Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Increase awareness of property owner to the potential flood impacts their structure might sustain during flood events
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	The township has the administrative capabilities to complete this project
Multi-Hazard	0	Flood
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	



Action Number:

BR-11

Mitigation Action Name:

The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:

- Bucto Land
- Route 9

Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Repetitively flooded properties place an undue stress on the property owner and village and efforts should be made to mitigate them.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action - current problem continues 2. Floodproof structures – May not full reduce flood risk to structures 3. Install floodwalls around structures – Most likely not cost effective and will interrupt natural floodplain function.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Work with owners to explore mitigation opportunities for repetitively flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties.
Mitigation Action Type	SIP
Goals Met	1, 2
Critical Facility (Y/N)	No
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Municipality with support from County
Local Planning Mechanism	PP
Potential Funding Sources	Grant funding; Municipal budget
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 5/31/18 Status: New Action



Action Number:
Mitigation Action Name:

BR-11

The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:

- Bucto Land
- Route 9

Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect residents from future flood damages (reduce or eliminate impacts)
Property Protection	1	Protect structures from future flood damages (reduce or eliminate impacts)
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	Need funding to complete project
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	High	