



## 9.32 Borough of Riverton

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

### 9.32.1 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
Scott Reed, Fire Chief / OEM 505A Howard Street, Riverton, NJ 08077 856.207.5369 scottreed@comcast.net	Michelle Hack, Borough Clerk 505A Howard Street, Riverton, NJ 08077 856.829.0120 mhack@riverton-nj.com

### 9.32.2 Municipal Profile

The Borough of Riverton is located on the northwestern tip of Burlington County along the Delaware River. The Borough is bordered by Cinnaminson to the east and south, and Palmyra to the west. To the north across the Delaware River, Riverton Borough is bordered by Philadelphia, Pennsylvania. The Borough encompasses just under one square mile, including 0.665 square miles of land and 0.301 square miles of water. According to the 2010 Census, the community's population was 2,779.

Riverton is governed under the Borough form of New Jersey municipal government. The government consists of a mayor and a borough council made up of six council members, with all positions elected at large in partisan elections. A mayor is elected directly by the voters to a four-year term of office. The borough council consists of six members elected to serve three-year terms on a staggered basis, with two seats coming up for election each year.

Under the Borough form, the mayor retains all general law authority, presides over council meetings and can vote in the case of a tie. The mayor appoints, with the advice and consent of council, all subordinate officers of the municipality. The council is the legislative body of the Borough. All executive responsibilities not placed in the office of the Mayor by general law or the Borough law remain with the council.

### Growth/Development Trends

The Borough of Riverton 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.

**Table 9.32-1. Growth and Development**

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or block/lot)	Known Hazard Zone(s)	Description/Status of Development
<b>Recent Development from 2013 to present</b>					
None reported					
<b>Known or Anticipated Development in the Next Five (5) Years</b>					
None anticipated					

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



### 9.32.3 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 9.32-2. 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	N/A	Heavy rain caused considerable poor drainage and creek flooding in the northern Burlington County. Rancoocas Creek was hit the hardest by flooding. Many roads were flooded and closed. Approximately \$1 million in property damage in the County.
June 23, 2015	Severe Storm (DR-4231)	Yes	\$10 million in property damage in the County (\$8 million in Medford, \$1 million in Mt Laurel and \$1 million in Medford Lakes)
January 22-24, 2016	Severe Winter Storm (DR-4264)	Yes	Heavy snow fell throughout the County; snowfall totals ranged from 12 inches to 16.4 inches.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

### 9.32.4 Hazard Vulnerabilities and Ranking

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

#### Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Borough of Riverton. During the review of the hazard/vulnerability risk ranking, the Borough indicated the following:

- Flood was changed from a low hazard to a medium hazard.
- Wildfire was changed from a low hazard to a medium hazard.



**Table 9.32-3. Hazard Risk/Vulnerability Risk Ranking**

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
Coastal Erosion	RCV Exposed to CE Hazard Area: \$13,428,890	Occasional	12	Low
Drought	Damage estimate not available.	Frequent	30	Medium
Earthquake	100-Year GBS: \$0 500-Year GBS: \$495,500 2,500-Year GBS: \$7,278,074	Occasional	28	Medium
Flood*	1% Annual Chance: \$33,097,785	Frequent	18	Medium
Landslide	RCV Exposed to Landslide Hazard Area \$916,434,789	Frequent	54	High
Severe Storm	100-year MRP: \$781,439 500-year MRP: \$6,782,962 Annualized: \$32,130	Frequent	48	High
Severe Winter Weather	1% GBS: \$5,858,580 5% GBS: \$29,292,900	Frequent	51	High
Wildfire*	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$0	Occasional	16	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.
- \* The Borough of Riverton changed the risk ranking for flood from low to medium and wildfire from low to medium.

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

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

**Table 9.32-4. NFIP Summary**

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Borough of Riverton	36	5	\$9,225.31	0	0	3

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 9.32-5. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Potential Loss from 1% Flood Event	
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage
National Casein - Riverton, NJ	Tier Facility	X	X	-	-
National Casein Of NJ	Chemical	X	X	-	-
Riverton Sewerage Treatment Plant	Wastewater Treatment	X	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:

- None identified

### 9.32.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

### Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Borough of Riverton.

**Table 9.32-6. Planning and Regulatory Tools**

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Master Plan	Yes (Updated 2007, Update 2017)	Local	Planning	-



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Capital Improvements Plan	Yes (Updated 2013)	Local	Finance	-
Floodplain Management / Basin Plan	Yes (Updated 2010)	Local	Construction Department	-
Stormwater Management Plan	Yes (Updated 2010)	Local	DPW	-
Open Space Plan	Yes (Updated 2009)	Local	Planning Board	-
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	Yes (Updated 2009)	Local	Borough Council	Chapter 71
Economic Development Plan	Yes (Updated 2009)	Local	-	-
Comprehensive Emergency Management Plan	Yes (Updated 2008)	Local	OEM	-
Emergency Operation Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
<b>Regulatory Capability</b>				
Building Code	Yes (1975, Updated 1992)	State & Local	Construction Department	Borough Code Chapter 109
Zoning Ordinance	Yes (Updated 2013)	Local	Zoning Department	Borough Code 128
Subdivision Ordinance	Yes (Adopted with original zoning document)	Local	Zoning/Planning Board	Included within the Zoning Ordinance
NFIP Flood Damage Prevention Ordinance	Yes (Updated 2010)	Federal, State, Local	Construction Department	Borough Code 71
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes (Updated 2009)	State, Local	Construction Department	Borough code 71
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes (Updated 2009)	Local	Planning	Chapter 109
Stormwater Management Ordinance	Yes (Updated 2010)	Local	DPW	Chapter 110
Municipal Separate Storm Sewer System (MS4)	Yes	Local	-	-
Stormwater Program Ordinances • Pet waste	No	-	-	-



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<ul style="list-style-type: none"> <li>Litter Control</li> <li>Improper Disposal of Waste</li> <li>Wildlife Feeding</li> <li>Yard Waste Collection</li> <li>Illicit Connection</li> <li>Private Storm Drain Retrofitting</li> <li>Refuse Container / Dumpster (optional)</li> </ul>				
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	-	-
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

### Administrative and Technical Capability

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

**Table 9.32-7. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Environmental Commission
Open Space Board/Committee	Yes	Park & Recreation Committee
Economic Development Commission/Committee	Yes	Economic Development Committee
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
<b>Technical/Staffing Capability</b>		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Zoning/planning board
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Borough Council
Planners or engineers with an understanding of natural hazards	Yes	Borough Council
NFIP Floodplain Administrator (FPA)	Yes	Superintendent DPW
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-



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

### Fiscal Capability

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

**Table 9.32-8. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

### Community Classifications

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

**Table 9.32-9. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
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	-	-
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 Borough of Riverton’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

**Table 9.32-10. Self-Assessment Capability for the Municipality**

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and regulatory capability		X	
Administrative and technical capability		X	
Fiscal capability		X	
Community political capability		X	
Community resiliency capability		X	
Capability to integrate mitigation into municipal processes and activities		X	

### National Flood Insurance Program

#### NFIP Floodplain Administrator (FPA)

Michelle Hack, Borough Clerk

#### Compliance History

The Borough is in good compliance with the National Flood Insurance Program.





## Regulatory

The Borough of Riverton's floodplain management ordinance meets the minimum set by FEMA and the State of New Jersey. The FPA was unsure if the Borough had considered joining the CRS program in the past or if the Borough would consider attending a local seminar on the program.

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

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

## Planning

**Hazard Mitigation:** The Borough of Riverton actively participated in the 5-year update of the Burlington County Hazard Mitigation Plan. The Borough continues to support the implementation, monitoring, maintenance, and updating of the plan.

**Master Plan:** The 2007 Master Plan Re-Examination Report for the Borough of Riverton has the following goals:

- Preserve and enhance Riverton's small town character and strong sense of community and place as evidenced in our pride, concern, and support for community institutions, programs, and services
- Provide the opportunity for a multigenerational, age, and income diverse population to live, work, and prosper in the Borough of Riverton.
- Preserve and enhance the key distinguishing man made and natural features that defines Riverton's character as a historic, Victorian, riverfront community.
- Strengthen the Borough's economic vitality

## Regulatory and Enforcement (Ordinances)

The municipal codebook for the Borough of Riverton is found online at <http://clerkshq.com/default.ashx?clientsite=Riverton-nj>.

**Flood Damage Prevention Ordinance:** The purpose of the Flood Damage Prevention Ordinance (Chapter 71 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 designed:

- To protect human life and health.
- To minimize the expenditure of public money for costly flood-control projects.
- To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- To minimize prolonged business interruptions.
- To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard.
- To 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.
- To ensure that potential buyers are notified that property is in an area of special flood hazard.
- To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.



**Zoning Code:** The purpose of the Borough of Riverton Zoning Code (Chapter 128 of the municipal code) is to consolidate the zoning regulations and achieve substantial conformity with the primary elements of the Master Plan of the Borough of Riverton and to make such regulations substantially consistent with the land use element of the Master Plan.

**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 New Jersey Pollutant Discharge Elimination System (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 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 [http://www.nj.gov/dep/dwq/msrp\\_home.htm](http://www.nj.gov/dep/dwq/msrp_home.htm). The Borough of Riverton is a Tier A municipality.

**Stormwater Management:** Chapter 110 of the municipal code discusses stormwater management. The chapter is intended to regulate the feeding of wildlife, disposal of waste, including pet solid waste, yard waste collection, litter, and other waste and pollution that may find its way into stormwater runoff in order to improve, preserve and protect the water quality of waters and streams within the Borough and surrounding communities that may be downstream from the Borough so as to protect the health safety and welfare of the public. This chapter also regulates connections to the municipal separate storm sewer system (MS4) operated by the Borough and establishes penalties for violations of the provisions of this chapter.

### Operational and Administration

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**Planning Board:** The Land Use Planning Board is comprised of nine members and has the following powers and duties:

- To prepare and, after public hearing, adopt or amend a Master Plan, or component parts thereof, to guide the use of lands within the Borough, in a manner which protects public health and safety and promotes the general welfare, pursuant to the provisions of N.J.S.A. 40:55D-28.
- To approve or disapprove subdivision plats and site plans, under Borough planning and zoning regulations, pursuant to the provisions of N.J.S.A. 40:55D-37.
- To approve or disapprove applications for conditional use under the provisions of the Zoning Ordinance, Editor's Note: See Ch. 128, Zoning, pursuant to the provisions of N.J.S.A. 40:55D-67.
- To participate in the preparation and review of programs or plans required by state or federal laws or regulations.
- To assemble data on a continuing basis as part of a continuous planning process.
- To annually participate in the preparation and review of a program of municipal capital improvement projects projected over a term of six years and amendments thereto.
- To review prior to adoption a proposed development regulation, revision or amendment thereto, and transmit to the governing body, within 35 days after referral, a report including recommendations concerning the proposed development regulation, revision or amendment, pursuant to the provisions of N.J.S.A. 40:55D-26a.



- When reviewing applications for approval of subdivision plats, site plans or conditional uses, to grant, to the same extent and subject to the same restrictions as the Zoning Board of Adjustment, variances pursuant to N.J.S.A. 40:55D-70c from lot area, lot dimensional, setback and yard requirements.
- To perform such other advisory duties as are assigned to it by ordinance or resolution of the governing body for the aid and assistance of the governing bodies or other agencies or officers.

Planning Board meetings are held the Third Tuesday of each month, at 7:00pm at the Borough Hall.

**Economic Development Committee:** The Economic Development Committee consist of seven members, appointed by the Mayor of the Borough of Riverton, six of its members must own a business, the seventh can be resident of this municipality and serve without compensation. The Committee has the following powers and duties:

- To inquire into, survey and publicize the extent, advantages and utility of vacant land with the Borough and to classify such vacant land according to its adaptability to various types of business, professional and industrial enterprise.
- To study and analyze various businesses, and industries and professions with a view to ascertaining the opportunities for expansion of such business and industries within the Borough.
- To work with existing Borough businesses in order to aid in their development and expansion.
- To work with other local, County, State and Federal Economic Development entities, by communications through the Chair and his Committee on behalf of the EDC, in order to advance the Borough of Riverton economic plan.
- Recommend to the economic advantages and opportunities and availability of real estate in the Borough, and encourage and accomplish business, industrial and professional settlement with the Borough of Riverton.
- The Chair of the Committee shall report to the Mayor and Council on a monthly basis as to the progress of the Committee.

The Committee meets as needed at the Orange Blossom Café.

**Park & Recommendation Committee:** Members of the Parks & Recommendation Committee serve for one year terms and meet the 4<sup>th</sup> Tuesday quarterly.

**Shade Tree Board:** The Borough's Shade Tree Board is responsible for all Borough Trees. These are trees planted in certain right of ways, and in between the curb and sidewalk. The Board meets on the 2<sup>nd</sup> Monday during January, March, May, September, and November.

**Environmental Commission:** The Environmental Commission is concerned with the "protection, development and use of the natural resources" located in Riverton Borough. Riverton's most sensitive environmental asset is the Pompeston Creek and the open space along its banks. The Commission has published an environmental inventory of the Pompeston Creek ([www.pompestoncreek.org](http://www.pompestoncreek.org)). Meetings are held on the third Thursday every month, 7:30 pm at the Riverton Library.

## Funding

The Borough of Riverton has a line for mitigation project funding in the municipal/operating budget. The Borough has provided funding for mitigations projects identified in the hazard mitigation plan and has provided protection for buildings/infrastructure in high hazard areas.

The Borough has identified various financial resources that are available including Community Development Block Grants; Capital Improvements Project Funding; authority to levy taxes for specific purposes; user fees for



water, sewer, gas, or electric services; impact fees for homebuyers or developers of new development/homes; state mitigation grant programs; and incurring debt through special tax bonds.

### **Education and Outreach**

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The Borough of Riverton offers training on best practices for hazard mitigation, hazard identification, and other training related to hazard mitigation. The Borough also conducts outreach on hazards through various methods.

The Borough maintains a municipal website (<http://www.riverton-nj.com/>) where they post information regarding upcoming community events, important municipal decisions, and information about the municipality. The Borough also maintains a Facebook page with similar information.

Burlington County utilizes the Swift911 Emergency Notification system. Swift911 is used in order to keep residents informed during fires, outages, floods, hurricanes, evacuations, road closures and more. All notifications are delivered for the sole purpose of delivering emergency messages and public notifications that are time sensitive in order to increase the safety and security. This service is also extended to the 40 municipalities within Burlington County, including the Borough of Riverton.

Similar to Swift911, the Borough also utilizes Nixle. Nixle is a messaging service that residents can register for that allows messages to be sent by government agencies to local residents via phone, email, and web. Nixle can be used for emergency or non-emergency situations.

### **9.32.6 Mitigation Strategy and Prioritization**

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

#### **Past Mitigation Initiative Status**

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The following table indicates progress on the community’s mitigation strategy identified in the 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 9.32-11. 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.
RT-1	Install an emergency generator at critical facilities, such as the Riverton Fire Department/Police Department	Lead: Riverton Borough Support: NJOEM	No Progress	1. No progress 2. The Borough has not been successful in obtaining a grant for this.	1. Include in 2019 HMP 2. Secure funding 3. N/A
RT-2	Upgrade infrastructure including, the tidal Riverwall at Palmyra Harbour from tidal flood damage	Lead: Palmyra Borough and Riverton Borough	Complete	Reconstructed river wall at Howard and Bank Avenues in January 2017. Repairs are 100%	1. Discontinue 2. N/A 3. Complete
RT-3	Where appropriate, seek to retrofit critical facilities in hazard prone areas	Borough Committee	No Progress	No critical infrastructure is in a hazer prone area	1. Discontinue 2. N/A 3. No critical infrastructure is in hazard prone areas
RT-4	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Borough	Complete	1. Participating in current update	1. Discontinue 2. N/A 3. Ongoing capability



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

The Borough of Riverton 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

### **Proposed Hazard Mitigation Initiatives for the Plan Update**

The Borough of Riverton 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 9.32-12 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Riverton 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 9.32-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



**Table 9.32-12. 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
RT-1 (Former RT-1)	Install an emergency generator at critical facilities, such as the Riverton Fire Department/Police Department	Yes	All hazards	1, 2, 6	Lead: Riverton Borough Support: NJOEM	Medium	Medium	HMGP, PDM, Municipal budget	Short	High	SIP	PP, ES
RT-2	Wastewater Plant Emergency Generator and Influent Pump replacement	Yes	All hazards	1, 2, 6	Lead: Riverton Borough	High	High	HMGP, PDM, Municipal budget	Short	High	SIP	PP, ES
RT-3	Conduct feasibility assessment to protect National Casein of NJ from flooding	Yes	Flood	1, 2, 6	Lead: Riverton Borough	Medium	Medium	HMGP, PDM, Municipal budget	Long	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:

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:





Costs:

- 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:

- Low* Long-term benefits of the project are difficult to quantify in the short term.
- Medium* Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
- High* Project will have an immediate impact on the reduction of risk exposure to life and property.

Mitigation Category:

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

CRS Category:

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



**Table 9.32-13. Summary of Prioritization of Actions**

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
RT-1	Install an emergency generator at critical facilities, such as the Riverton Fire Department/Police Department	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
RT-2	Wastewater Plant Emergency Generator and Influent Pump replacement	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
RT-3	Conduct feasibility assessment to protect National Casein of NJ from flooding	1	1	0	1	1	0	1	1	1	1	0	0	1	1	10	High

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



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

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None at this time.

### **9.32.8 Hazard Area Extent and Location**

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

### **9.32.9 Additional Comments**

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None at this time.



Figure 9.32-1. Borough of Riverton Hazard Area Extent and Location Map 1

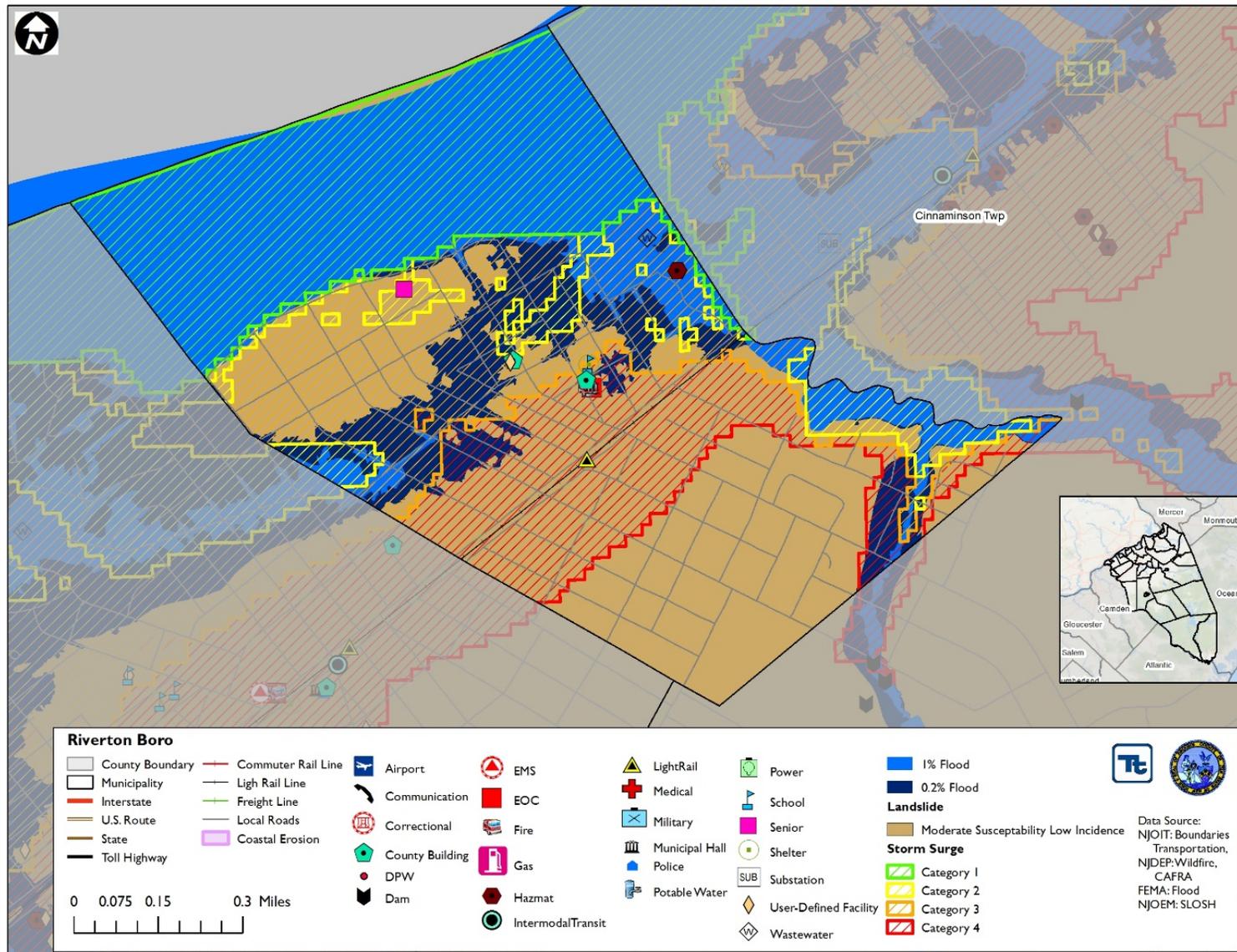
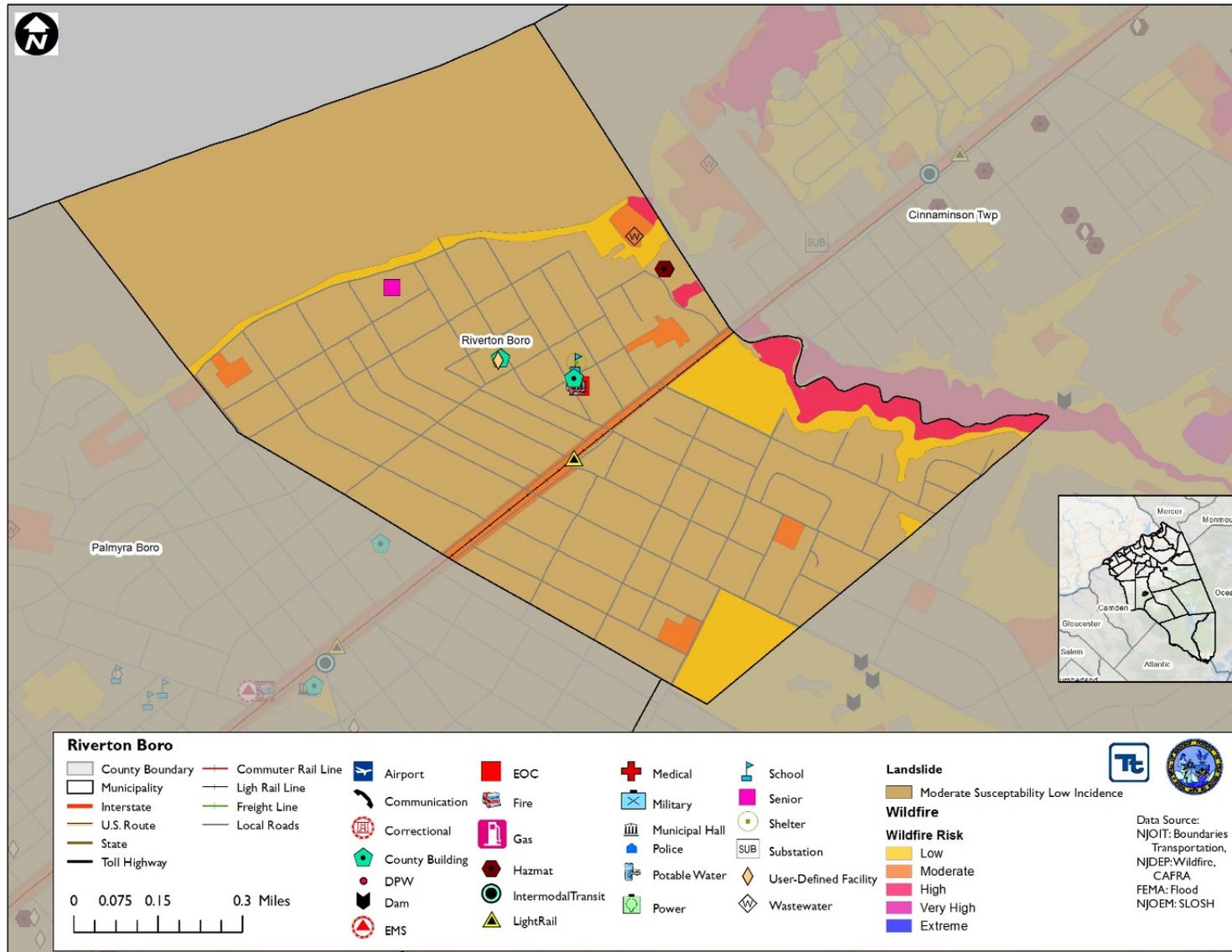




Figure 9.32-2. Borough of Riverton Hazard Area Extent and Location Map 2





**Action Number:**

RT-1 (Former RT-1)

**Mitigation Action Name:**

Install an emergency generator at critical facilities, such as the Riverton Fire Department/Police Department

Assessing the Risk	
<b>Hazard(s) addressed:</b>	All
<b>Specific problem being mitigated:</b>	Backup power to essential facilities is critical during an emergency event
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Solar panels: weather dependent and costly. Mobile generator: may lack sufficient power supply or run time.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Installation of generators and backup power required to ensure the building's ability to remain functional during an event.
<b>Mitigation Action Type</b>	SIP
<b>Goals Met</b>	1, 2, 6
<b>Critical Facility (Y/N)</b>	Yes
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Lead: Municipality with support from County, NJOEM and FEMA
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	FEMA HMA with local Improvements Budget 25% cost share
<b>Timeline for Completion</b>	Short Term
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 1/31/18 Status: Funding not secured



**Action Number:**

RT-1 (Former RT-1)

**Mitigation Action Name:**

Install an emergency generator at critical facilities, such as the Riverton Fire Department/Police Department

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	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	9	
<b>Priority (H/M/L)</b>	High	



Action Number:

RT-2

Mitigation Action Name:

Wastewater Plant Emergency Generator and Influent Pump replacement

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No Action - current problem continues Relocate wastewater plant and increase capacity – may be a cost-prohibitive action Solar panels: weather dependent and costly.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install emergency generator to ensure plant remains operational during a storm event and replace influent pump to manage increased inflows of wastewater.
Mitigation Action Type	SIP
Goals Met	1, 2, 6
Critical Facility (Y/N)	Yes
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Municipality with support of Pinelands Wastewater Work with Pinelands Wastewater to Develop a plan to mitigate pump stations
Local Planning Mechanism	Hazard mitigation, emergency management
Potential Funding Sources	FEMA HMGP, Grants
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 5/31/18 Status: New Action



Action Number:

RT-2

Mitigation Action Name:

Wastewater Plant Emergency Generator and Influent Pump replacement

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	9	
<b>Priority (H/M/L)</b>	High	



**Action Number:**

RT-3

**Mitigation Action Name:**

Conduct feasibility assessment to protect National Casein of NJ from flooding

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood
<b>Specific problem being mitigated:</b>	Flooding exposure to chemical facility
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Install floodwall around facility – costly, may not be needed Relocate facility out of floodplain – very costly, may not be possible
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	The Borough will work with National Casein of NJ to determine flood exposure of the facility. The Borough will then conduct a feasibility assessment to determine appropriate actions to protect the facility from flood damages.
<b>Mitigation Action Type</b>	SIP
<b>Goals Met</b>	1, 2, 6
<b>Critical Facility (Y/N)</b>	No
<b>Benefits (losses avoided)</b>	Medium
<b>Estimated Cost</b>	Medium
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Municipality with support from NJ Transit
<b>Local Planning Mechanism</b>	Hazard mitigation
<b>Potential Funding Sources</b>	Municipal Budget
<b>Timeline for Completion</b>	Long Term
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	



Action Number:

RT-3

Mitigation Action Name:

Conduct feasibility assessment to protect National Casein of NJ from flooding

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project protects chemical facility from flood damages that could cause harm to life
Property Protection	1	Project will aim to protect chemical facility from flood damages
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	0	Facility not owned by the Borough
Fiscal	1	Municipal budget
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Long Term
Agency Champion	1	
Other Community Objectives	1	
<b>Total</b>	10	
<b>Priority (H/M/L)</b>	Medium	