



## 9.21 Township of Medford

This section presents the jurisdictional annex for the Township of Medford.

### 9.21.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan’s primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Robert Dovi, Lt. EMC 1 Firehouse Lane, Medford, NJ 08055 609.743.0460 rdovi@medfordfire.org	Thomas Thorn, Chief Deputy EMC 1 Firehouse Lane, Medford, NJ 08055 609.953.3291 tthorn@medfordfire.org

### 9.21.2 Municipal Profile

In 1670, William Penn and others, acting for Edward Billynge, sold 900 acres of land -- what is now known as Medford Township -- to Samuel Coles. Nearly 100 years later, Medford, then known as Upper Evesham, began to resemble a village with a schoolhouse that was also used as the Friends Meeting. The Village continued to develop through the 1780's largely due to the founding of the Etna and Taunton furnaces by Charles Read. Etna furnace (Medford Lakes) went out of blast in 1773 but the grist and sawmill operated into the 20th century.

After the Revolution and into the 1800's, Upper Evesham struggled as a little village with a few houses strung along Main Street. It was Mark Reeve who called a town meeting to propose the name Medford after a visit to Medford, Massachusetts. In 1820, when the Post Office opened, the town was officially called Medford of Upper Evesham. On February 4th, 1847, Medford Township was "set apart from" Evesham by act of legislature.

The Township of Medford is governed by the Council-Manager (Faulkner Act) form of government. Under the Council-Manager form, the council is the legislative body of the municipality but also appoints the positions of Municipal Clerk, Tax Assessor as well as provides for appointments of members of Boards, Commissions and Authorities. Perhaps most importantly, the council appoints a qualified manager to serve as the chief executive.

The mayor is selected from the council and serves as the presiding member of the council. The Manager has the full administrative responsibility for the municipality, including appointment of department heads as well as subordinates, preparation and presentation of the budget and the negotiation of contracts.

The Township of Medford is located in the western portion of Burlington County and encompasses approximately 39.9 square miles, of which 38.9 square miles is land and 1 square mile is water. The Township is bordered by Evesham and Mount Laurel to the west, Lumberton to the north, Southampton and Tabernacle to the east, and Shamong to the south east. To the south, Medford is bordered by the Camden County Municipality of Waterford Township. According to the 2010 Census, the community's population was 23,033.

Medford Township contains lands within the Pinelands which is managed by the Pinelands Comprehensive Management Plan. The plan establishes nine land use management areas with goals, objectives, development intensities and permitted uses for each. The boundaries of these management areas are displayed on the Pinelands Land Capability Map. They are implemented through local zoning that must conform with Pinelands land use standards. Medford Township has lands designated as preservation area district, forest area, agricultural production area, rural development area, regional growth area, and special agricultural production area.



### Growth/Development Trends

The following table summarizes recent residential/commercial development since 2013 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in 9.21.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.21-1. 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>					
Wildflowers/ Orleans	Res.	96	403.01/50	Could not locate.	COMPLETE
Wyngate/ Bob Meyers Communities	Res	257	404.25/78	Could not locate.	ONGOING.
Heritage/ Bob Meyers communities	Res.	288	404.31/4	Could not locate.	ONGOING.
Melville Court	Res	11	803/ 8.04 & 8.07	None	ONGOING
<b>Known or Anticipated Development in the Next Five (5) Years</b>					
Hartford Square	Res/Comm	71 res 40,000 Sq Ft	401/14.01	NONE	ONGOING
Tofamo	Res	240	401/13.01 403/ 2 & 7	Flood: 1% Event: A-Zone; Wildfire: Extreme	PROPOSED
Stokes Square	Res	120	2701.20/ 9.01 9.02, 9.03, & 10.07	NONE	PROPOSED
Flying W	Res	450	303/ 1& 3 301/ 5.01	Flood: 1% Event: A-Zone; Wildfire: Very High; SLOSH: Category 1	PROPOSED

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

### 9.21.3 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 9.21-2. 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	Approximately 14.5 inches of rain fell during a 24-hour period on April 30 <sup>th</sup> . The SW Branch of the Rancocas Creek exceeded flood stage, crested at 0300 hrs. with a maximum water level at the Main Street bridge of 14.38 feet. Light showers intermittently



Dates of Event	Event Type (Disaster Declaration if applicable)	Burlington County Designated?	Summary of Damages/Losses
			affect the area, but there has been no heavy rain since midnight. Several roads remain closed due to flooding, and several homes have been affected by flooding. Several residents along the creek in the New Freedom Road area and Lake Cotoxen area voluntarily evacuated. Door to door notifications were made to those areas, as well as residents off Himmelein Road along the creek. No Shelter residents made private arrangements. No injuries or deaths reported.
June 23, 2015	Severe Storm (DR-4231)	Yes	Severe storms, straight-line winds and heavy rains impacted Medford Township, causing widespread downed trees and fallen limbs leaving behind town-wide vegetative debris damages. The debris constituted hazardous conditions, posing an immediate threat to public health and safety requiring immediate emergency debris removal. Fifty roads were closed throughout the township due to downed trees and debris. There were natural gas leaks due to uprooted transmission lines. Power was out for a majority of the township for up to 7 days. Numerous commercial business was closed due to the power outages.
January 22-24, 2016	Severe Winter Storm (DR-4264)	Yes	An extensive area of snow fell NW of the storm track producing accumulations of more than two feet across much of NJ record breaking snowfall occurred in several NJ counties along with moderate locally recorded coastal flooding. Due to heavy snow fall and icing conditions numerous roadways in the township were impassable. DPW had a difficult time keeping up with the plowing due to the significant snow fall. Intermittent power outages were noted. None were for extended periods of time.

Notes:

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

**9.21.4 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 Medford. 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 Medford. During the review of the hazard/vulnerability risk ranking, the Township 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 9.21-3. 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: \$0	Rare	6	Low
Drought	Damage estimate not available.	Frequent	30	Medium
Earthquake	100-Year GBS: \$0 500-Year GBS: \$6,370,740 2,500-Year GBS: \$92,821,965	Occasional	28	Medium
Flood*	1% Annual Chance: \$367,010,672	Frequent	18	Medium
Landslide	RCV Exposed to Landslide Hazard Area: \$0	Rare	6	Low
Severe Storm	100-year MRP: \$17,479,571 500-year MRP: \$46,668,322 Annualized: \$516,992	Frequent	48	High
Severe Winter Weather	1% GBS: \$79,999,363 5% GBS: \$399,996,817	Frequent	51	High
Wildfire*	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$869,929,438	Occasional	18	Medium

**Notes:**

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
  - b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.  
High = Total hazard priority risk ranking score of 31 and above  
Medium = Total hazard priority risk ranking of 20-30+  
Low = Total hazard risk ranking below 20
  - c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
  - d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
  - e. The HAZUS-MH earthquake model results are reported by Census Tract.
- \* The Township of Medford changed the risk ranking of 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 Township of Medford.

**Table 9.21-4. 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)
Township of Medford	249	179	\$3,355,285.87	13	1	2

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. Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude.

### Critical Facilities

The table below presents 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 9.21-5. 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
Burlington County Institute of Tech- W	School	X	X	-	-
Jantek Industries	Chemical		X	-	-
Medford Leas	Senior	X	X	14.5	77
Medford Water Pollution Control	Wastewater Treatment		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:

- The flood hazard areas coincide with Sharps Run located on the north side of Route 70 and coinciding with the highway near the intersection of Route 541.
- As per the 2017 preliminary Flood Insurance Study, flooding of the Rancocas Creek South Branch and Rancocas Creek Southwest Branch is primarily due to torrential rains during summer and autumn months.

### 9.21.5 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 Medford.



**Table 9.21-6. Planning and Regulatory Tools**

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Master Plan	Yes	Local	Admin	MTMC 5-84
Capital Improvements Plan	Yes	Local	Admin	MTMC 5-52
Floodplain Management / Basin Plan	Yes	Local	FPA	MTMC 128-1
Storm water Management Plan	Yes	Local	NHS	MTMC 128-1
Open Space Plan	Yes	Local	Plan & Zone	MTMC 5-27 LO 1984-5
Stream Corridor Management Plan	Yes	State	Dam Safety	LO 2010-13
Watershed Management or Protection Plan	Yes	Local	FPA	LO 2010-13
Economic Development Plan	Yes	Local	Plan & Zone	
Comprehensive Emergency Management Plan	Yes	Local/ County/ State	OEM	NJ Directive 101
Emergency Operation Plan	Yes 2/5/14	Local	OEM	NJ Directive 101
Post-Disaster Recovery Plan	Yes	Local/ County State	OEM	
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:	Yes	Local	OEM	
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local	Construction Dept	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Zoning	LO 1982-22
Subdivision Ordinance	Yes	Local	Plan & Zone	LO 2010-18
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Admin	LO 2017-16 603.0
NFIP: Cumulative Substantial Damages	Yes	Local	OEM	SRL List
NFIP: Freeboard	Yes	State, Local	FPA	
Growth Management Ordinances	Yes	Local	Plan & Zone	Section 300 of Land Development Ordinance
Site Plan Review Requirements	Yes	Local	Zoning & Planning Boards	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Stormwater Management Ordinance	Yes 2/1/2013	Local/ State	NHS	MTMC 128-1 LO 210-32
Municipal Separate Storm Sewer System (MS4)	Yes 1//2018	Local	NHS	MTMC 128-1
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Real Estate Disclosure Requirement	Yes	Local	Fire	
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])				

### Administrative and Technical Capability

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

**Table 9.21-7. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning & Zoning
Mitigation Planning Committee	Yes	OEM
Environmental Board/Commission	Yes	Administration
Open Space Board/Committee	Yes	Administration
Economic Development Commission/Committee	Yes	Administration
Maintenance programs to reduce risk	Yes	JIF Safety Committee Admin
Mutual aid agreements	Yes	Fire/EMS Burlington County Mutual aid plan
<b>Technical/Staffing Capability</b>		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Township Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Construction Dept./ Twp. Engineer
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer
NFIP Floodplain Administrator (FPA)	Yes	Township Engineer
Surveyor(s)	No	
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Medford Fire Department/Chief
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	Office of Emergency Management/ EMC
Grant writer(s)	Yes	Multiple Departments
Staff with expertise or training in benefit/cost analysis	Yes	Administration
Professionals trained in conducting damage assessments	Yes	Construction Office

### Fiscal Capability

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





**Table 9.21-8. 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
Storm water utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	Yes
Other	

**Community Classifications**

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

**Table 9.21-9. 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)	Yes		
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	04/4Y	05/01/2015
Storm Ready Certification	No		07/12/2005
Fire wise Communities classification	Yes	Extreme 17-20	06/05/2012
Natural disaster/safety programs in/for schools	Yes		
Organizations with mitigation focus (advocacy group, non-government)	Yes		
Public education program/outreach (through website, social media)	Yes		
Public-private partnership initiatives addressing disaster-related issues	Yes		

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. Fire wise 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 Medford’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

**Table 9.21-10. 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 Budget, Staff		
Capability to integrate mitigation into municipal processes and activities	X Budget, Staff		

### National Flood Insurance Program

#### NFIP Floodplain Administrator (FPA)

Christopher Noll, Township Engineer

#### Flood Vulnerability Summary

The Township of Medford does maintain lists/inventories of properties that have been damaged by flooding. There was 1 commercial and 28 residential properties damaged during Sandy and the June 23, 2015 severe storm. The Township Engineer does make substantial damage estimates and there has been a total of 11 declared for Sandy, the June 23, 2015 severe storm, and the January 22-24, 2016 severe winter storm. The FPA indicated that the Township had two properties on New Freedom Road interested in mitigation. Currently, Camp Dark Water is in the process of elevating the dining hall using an FMA grant and property owner share.

### Resources

The FPA is the Township Engineer and there is staff available to help with the responsibilities of floodplain administration. NFIP administration service includes evaluating new construction with respect to the flood hazard zone. At this time, education and outreach programs to the community regarding flood hazards is done by the Emergency Management Coordinator, who has presented to the retirement community and at the local library. The FPA stated that there are currently no barriers to running an effective floodplain management





program, and that he does feel adequately supported and trained to fulfill the responsibilities as the municipal floodplain administrator. The FPA would consider attending continuing education and certification training on floodplain management if it were offered in the future.

### Compliance History

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The Township is in good standing with the NFIP and had their last compliance audit in 2009.

### Regulatory

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The Township of Medford's floodplain ordinance meets the minimum set by FEMA and the State of New Jersey. There are additional ordinances that support floodplain management in the town. The Township is not currently in the CRS program; however, they have considered joining and would attend a seminar if offered.

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

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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

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The 2017 Medford Township Reexamination Report & PPE Zoning Districts updates and guides community development in the Township including land use, utilities, parks and open space, infrastructure, circulation, utilities among others. In addition, the reexamination updated the goals developed by previous Master Plan documents to provide goals that are easily understood and not repetitive. Particular attention was paid to the PPE Park/Public/Education Districts for this reexamination. The updated goals include:

1. Enhance and protect the prevailing quality of life existing in Medford Township, including security, education, recreation, housing, and employment.
2. Maintain Medford Township's existing character as a rural municipality of farms and large lot single-family residential units, while also providing for a balanced variety of uses and housing types to meet the needs of a variety of incomes, age groups, and lifestyles.
3. Ensure that the density and intensity of development is consistent with the inherent capabilities and limitations of the physical characteristics of land avoiding floodplains, stream corridors, aquifers, and aquifer recharge areas.
4. Protect environmentally sensitive lands as well as key natural resources, such as watersheds, forests, grasslands, and habitats; and open space and agricultural lands.
5. Promote aesthetic improvement, public amenity, and economic vitality in commercial and industrial areas.
6. Promote sustainability in land use planning throughout the Township, which fosters Medford's distinct and attractive sense of place.
7. Provide adequate and appropriate community facilities and services in order to maintain the quality of life for existing and future Township residents.
8. Encourage preservation of historic buildings and context sensitive design, rehabilitation and redevelopment in all districts.
9. Create a comprehensive, integrated, connected street and road network that accommodates travel by pedestrians, bicyclists, public transit, and motorized vehicles with passengers safely and efficiently, through the "Complete Streets" policy (Township of Medford Resolution 132-2012).
10. Ensure that the Township's planning and zoning does not conflict with the planning of adjacent municipalities, the County, the Pinelands Comprehensive Management Plan and the State.



**Pinelands Comprehensive Management Plan:** The New Jersey Pinelands Commission protects the Pinelands through its implementation of the Comprehensive Management Plan (CMP). The CMP contains the rules that guide land-use, development and natural resource protection programs in the state Pinelands Area.

The regulations and standards contained in the CMP are designed to promote orderly development by channeling growth toward appropriate areas while safeguarding the region's unique natural, ecological, agricultural, archaeological, historical, scenic, cultural and recreational resources.

The Pinelands Comprehensive Management Plan provides general provisions, interpretations and definitions, certification of County, Municipal and Federal Installation Plans, development review, minimum standards for land uses and intensities, management programs and minimum standards, amendments to the comprehensive management plan, enforcement, acquisition of properties with limited practical use, and pilot programs.

### 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 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 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](http://www.nj.gov/dep/dwq/msrp_home.htm). The Township of Medford is Tier A municipality.

**Stormwater Management:** Chapter 128 of the municipal code discusses stormwater management. The chapter is intended to regulate the improper disposal of waste, pet waste, wildlife feeding, the yard waste collection program, and illicit connections in order to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

### Operational and Administration

The Township of Medford has the following boards, commissions, and committees:

- Economic Development Commission
- Environmental Affairs Advisory Committee
- Neighborhood Services Advisory Commission
- Planning Board
- Zoning Board of Adjustment

### Funding

The Township of Medford has mutual aid agreements with Fire and EMS through the Burlington County Mutual Aid Plan. The Township also has multiple departments capable of writing grants. Financial resources that the Township has access to or are eligible to use include Community Development Block Grants, Capital Improvement Project Funding, the authority to levy taxes for specific purposes, user fees for water, sewer, gas or electric service, impact Fees for homebuyers or developers of new development/home the ability to incur dept through general obligation bonds, other Federal or State funding programs, and open space acquisition funding programs.



## **Education and Outreach**

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The Township of Medford has a website where one can access information about the Township’s Departments & Services, Boards & Commissions, Community Links, Parks & Recreation, History, Documents and Forms, and Public Surveys & Polls. Additional information on the websites main page include the Town calendar , a sign-up link for nixle alerts, and a link to live streaming of public meetings. The Township holds education and outreach sessions regarding mitigation to help residents prepare for disaster. During community outreach programs, the Township discusses options for residential backup power; residents are informed that due to budget constraints we have a limited number of emergency generators available.

### **9.21.6 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 9.21-11. 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.
MD-1	Clearing of debris along the Southwest Branch of the Rancocas Creek and its tributaries	Lead: Twp. Public Works Support: Twp. OEM, NJ DEP	In Progress	1. 5% Complete worked with local canoe trail group to clear large debris 2. Budget and personnel have limited additional action No additional funding available	3. <i>Include in 2019 HMP</i> 4. Consider obtaining a grant to clear and dredge creek bed
MD-2	Create a mitigation outreach program to help residents prepare for disaster.	Lead: Twp. OEM	Complete	We have done 3 outreach sessions in the last two years and are planning additional offerings	1. <i>Discontinue</i> 2. Ongoing capability
MD-3	Support and fund Community Emergency Response Team (CERT) program that includes a mitigation component.	Lead: Twp. OEM	Complete	CERT team was created and merged into a regional team known as Pinelands CERT.	1. Discontinue 3. The town continues to fund and work with the regional CERT.
MD-4	Reduce water use for landscaping by imposing mandatory water-use restrictions during times of water shortage.	Lead: Twp. Utilities Dept.	In Progress	1. 75% complete The township works with the NWS to issue water restriction guidelines during drought conditions. This is done through Municipal Ordinance.	2. <i>Include in 2019 HMP</i> 3. Continue to work with homeowner's associations to reduce water used for landscaping during drought conditions.
MD-5	Identify and document repetitively flooded properties and take action to mitigate by upgrading storm pipe crossings, installing drainage outlets, and improving spillways. Elevation, relocation, or acquisition of affected homes and properties.	Lead: Twp. OEM Support: Twp. Public Works, Twp. Planning Board, NJOEM	In Progress	1. We continue to look at SRL properties and now coordinate with downstream towns to mitigate water levels prior to weather events. 2. Funding has prevented us from raising properties	3. <i>Include in 2019 HMP</i> 4. Secure funding to raise properties
MD-6	Initiate a public outreach program to educate homeowners on the risk of wildfires and personal property mitigation strategies.	Lead: Medford OEM, Medford Twp. Support: Medford Twp Division of Fire, NJ Forest Fire Service	In Progress	1. 20% complete 2. EMC attended the Ready Set Go train the trainer program and is working with local Fire Warden to set up training dates.	3. <i>Include in 2019 HMP</i> 4. Setup and deliver Ready Set Go program to educate homeowners on the risks of wildfire and personal property mitigation strategies.



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.
MD-7	Purchase or promote NOAA weather radios for critical facilities.	Lead: Medford OEM, Medford Twp. Support: NJOEM	No Progress	<ol style="list-style-type: none"> <li>0 % completed due to other more pertinent projects.</li> <li>Weather monitoring software was purchased for EOC operations.</li> </ol>	<ol style="list-style-type: none"> <li>Include in 2019 HMP</li> <li>Purchase battery operated NOAA weather radios for critical facilities.</li> </ol>
MD-8	Install a permanent 345Kw generator at the Medford Township Fire Division Station #252, located in the southeastern section of the Township	Lead: Twp. OEM Support: Twp. Division of Fire	Complete	<ol style="list-style-type: none"> <li>Natural Gas Generator purchased and installed FY 2017.</li> </ol>	<ol style="list-style-type: none"> <li>Discontinue</li> <li>Project complete</li> </ol>
MD-9	Raise existing wood frame dining hall structure of Camp Dark Waters so floor level is above the level indicated by flood plain in this particular area of the camp	Lead: Twp. OEM	In Progress	<ol style="list-style-type: none"> <li>20% complete</li> <li>FMA grant secured to elevate dining hall.</li> <li>All new Cabins are being built as elevated structures; Camp admin staff is in the process of securing bids for work.</li> </ol>	<ol style="list-style-type: none"> <li>Include in 2019 HMP</li> <li>Select contractor to complete work</li> </ol>
MD-10	Develop and map wildfire evacuation routes throughout the southeastern section of the Township	Lead: Twp. OEM Support: Twp. Division of Fire, NJ Forest Fire Service	In Progress	<ol style="list-style-type: none"> <li>20% Complete</li> <li>Time and staffing cuts have prevented personnel from being detailed to this project</li> <li>Local Fire warden has trained firefighters in evac procedures</li> </ol>	<ol style="list-style-type: none"> <li>Include in 2019 HMP</li> <li>Complete project</li> </ol>
MD-11	Develop a Wildfire Evacuation Route Awareness Program with related signage delineating safe routes of escape from wildfires	Lead: Twp. OEM Support: Twp. Division of Fire, NJ Forest Fire Service	No Progress	<ol style="list-style-type: none"> <li>Need to secure funding will look at FY 2019 budget</li> </ol>	<ol style="list-style-type: none"> <li>Include in 2019 HMP</li> <li>Combine MD-10 &amp; 11</li> <li>Develop and map a wildfire evacuation route throughout the southeastern section of the township and provide community education on the routes and signage.</li> </ol>
MD-12	Develop a snow response plan to ensure public safety access during extreme winter weather	Lead: Twp. OEM	Complete	<ol style="list-style-type: none"> <li>Director of Public works developed plan.</li> <li>Plan was tested during numerous events and corrections were made.</li> </ol>	<ol style="list-style-type: none"> <li>Discontinue</li> <li>Complete</li> </ol>



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.
MD-13	Coordinate a dam safety workshop for dam owners to educate them on responsibilities and to assist in updating/revising dam emergency action plans	Lead: Medford Lakes OEM, Medford Twp. OEM Support: NJDEP	Complete	1. Dam safety workshop completed with assistance of NJDEP Dam safety unit. Plan to hold a TTX FY2018 or 19	1. Discontinue 2. Workshop conducted/Additional planned
MD-14	Evaluate benefits of participating in CRS program	Twp. Council; OEM; Planning	Complete	1. Submitting LOI to CRS for evaluation	1. Discontinue 2. In the process of joining CRS
MD-15	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: • Disaster preparedness • Hazard mitigation	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Complete	1. This is being completed through our Community outreach program.	1. Discontinue 2. This is already done through our community outreach initiatives.
MD-16	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	Municipality with support from County, NJOEM and FEMA	Complete	1. Burlington County is in the process of updating our county radios to 700mhz system.; Funding is through Burlington County.	1. Discontinue 2. County updating radio systems
MD-17	Obtain and install backup power sources at critical facilities.	Municipality with support from County, NJOEM and FEMA	In Progress	1. Critical facilities including fire station, fueling facility now have generators. 2. Plans are in Capital to upgrade and replace generator at Public Safety/EOC building. 3. Funding continues to come from local budget.	1. Include in 2019 HMP 2.
MD-18	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	Municipality with support from County, NJOEM, FEMA and surrounding communities	Complete	1. EMS/ Police/ and Fire all participate in the Burlington County Mutual Aid Plan; we continue to look at developing a plan for other critical functions.	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.
MD-19	Continue to support the implementation, monitoring, maintenance, and updating of this Plan through participating in the 5-year Plan Update	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Complete	1. Review and update plan. Annually review plan during budget time for considerations to municipal budget.	1. Discontinue 2. Participating in plan update
MD-20	Promote the participation of Floodplain Administrator within the planning process and other related activities.	Municipality with support from County, NJOEM and FEMA	Complete	2. 1. Township engineer named local flood plain admin.	1. Discontinue 2. Township engineer sits on planning board and reviews local plans for compliance. 3.
MD-21	Enhance resilience to severe storms by joining the NOAA "Storm Ready" program.	Municipality with support from County, NJOEM and FEMA	Complete	3. 1. Medford became a storm ready community in 2013.	1. Discontinue 2. 3.
MD-22	Provide public education and outreach on proper installation and/or use of backup power	Municipal OEM	Complete	1. During our community outreach program, we discuss options for residential backup power. Residents are informed that due to budget constraints we have a limited number of emergency generators available	1. Discontinue 2. Ongoing capability 3.
MD-23	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	1. Working to address dangerous trees	1. Discontinue 2. Ongoing capability/program.



### Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Township of Medford 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 9.21-12 summarizes the comprehensive-range of specific mitigation initiatives the Township of Medford 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 9.21-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.21-12. 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
MD-1 (former MD-1)	Clearing of debris along the Southwest Branch of the Rancocas Creek and its tributaries	N/A	Flood	4	Lead: Twp. Public Works Support: Twp. OEM, NJ DEP	High	High	Federal, State and County Grants, Burlington County Bridge Commission	Long	Low	NRP	NR
MD-2 (former MD-4)	Reduce water use for landscaping by imposing mandatory water-use restrictions during times of water shortage.	N/A	Drought	1, 4	Lead: Twp. Utilities Dept.	Low	Low	General Budget	Continuous	Medium	NRP	NR
MD-3 (former MD-5)	Identify and document repetitively flooded properties and take action to mitigate by upgrading storm pipe crossings, installing drainage outlets, and improving spillways. Elevation, relocation, or acquisition of affected homes and properties.	Existing	Flood	1, 2	Lead: Twp. OEM Support: Twp. Public Works, Twp. Planning Board, NJOEM	High	High	HMGP, Capital Funding	Long	Medium	SIP	PP
MD-4 (former MD-6)	Initiate a public outreach program to educate homeowners on the risk of wildfires and personal property mitigation strategies.	N/A	Fire	1, 2, 5	Lead: Medford OEM, Medford Twp. Support: Medford Twp. Division of Fire, NJ Forest Fire Service	High	Low	Fire wise, EMAA, local funding through operations budget	Short	High	EAP	PI
MD-5 (former MD-7)	Purchase or promote NOAA weather radios for critical facilities.	Existing	Storms	1, 2, 6	Lead: Medford OEM, Medford Twp. Support: NJOEM	Medium	Medium	NOAA, State, General Budget	Short	Medium	LPR, EAP	ES
MD-6 (former MD-9)	Raise existing wood frame dining hall structure of Camp Dark Waters so floor level is above the	Existing	Flood	1, 2	Lead: Twp. OEM	High	High	HMGP supplemented by Capital	Short	Medium	SIP	PP





Table 9.21-12. 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
	level indicated by flood plain in this particular area of the camp							for cost share				
MD-7 (former 10)	Develop and map wildfire evacuation routes throughout the southeastern section of the Township	N/A	Fire	1, 5, 6	Lead: Twp. OEM Support: Twp. Division of Fire, NJ Forest Fire Service	Medium	Low	Fire wise, EMAA, local funding through operations budget	Short	Medium	LPR	ES
MD-8 (former MD-11)	Develop a Wildfire Evacuation Route Awareness Program with related signage delineating safe routes of escape from wildfires	N/A	Fire	1, 5, 6	Lead: Twp. OEM Support: Twp. Division of Fire, NJ Forest Fire Service	High	Low	Fire wise, EMAA, local funding through operations budget	Short	Medium	LPR	PI
MD-9 (former MD-17)	Obtain and install backup power sources at critical facilities.	N/A	All Hazards	1, 2, 6	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short	Medium	SIP	ES
MD-10	Obtain additional traffic control devices including portable generators for use at intersections to provide power to traffic signals	N/A	All Hazards	1, 6	Police Fire Municipal DPW	High	Medium	Local Budget	Short	Medium	SIP	PP
MD-11	Elevate bridge & Roadway Route 70 entrance Medford Leas	N/A	Flood	1, 6	Medford Les, Medford OEM	High	High	Grant funding	Long	Low	SIP	PP
MD-12	Coordinate with the facility managers at Burlington County Institute of Tech - M 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	Yes	Flood, Severe Storm	1, 2, 6	Municipality with support from County	High	High	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	SP, PP





Table 9.21-12. 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
	Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.											
MD-13	Coordinate with the facility managers at Jantek Industries 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	Flood, Severe Storm	1, 2, 6	Municipality with support from County	High	High	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	SP, PP
MD-14	Coordinate with the facility managers at Medford Leas 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	Flood, Severe Storm	1, 2, 6	Municipality with support from County	High	High	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	SP, PP
MD-15	Coordinate with the facility managers at Medford Water Pollution Control 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.	Yes	Flood, Severe Storm	1, 2, 6	Municipality with support from County	High	High	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	SP, PP





Table 9.21-12. 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
	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.											
MD-16	During future updates of the Master Plan, Floodplain Management Plan, the Emergency Operation Plan, or other plans, 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, PI
MD-17	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: <ul style="list-style-type: none"> <li>Birchwood Drive</li> <li>Illinois Trail</li> <li>New Freedom Road</li> <li>Chairville Road</li> <li>Haynes Creek Road</li> <li>Lenape Trail</li> <li>S Main Street</li> <li>Bear head Road</li> </ul> Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of	No	Flood	1, 2	Municipality with support from County	High	High	Grant funding; Municipal budget	Short	High	SIP	PP





**Table 9.21-12. 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
	initiative is dependent on funding, benefits versus cost, and willing participation of property owners.											

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.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low= < \$10,000  
 Medium \$10,000 to \$100,000  
 High > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

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





Mitigation Category:

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

CRS Category:

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



Table 9.21-13. 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
MD-1 (former MD-1)	Clearing of debris along the Southwest Branch of the Rancocas Creek and its tributaries	1	1	-1	0	0	0	-1	1	0	0	1	0	0	1	5	Medium
MD-2 (former MD-4)	Reduce water use for landscaping by imposing mandatory water-use restrictions during times of water shortage.	1	1	0	0	1	1	0	1	0	0	1	0	0	0	6	Medium
MD-3 (former MD-5)	Identify and document repetitively flooded properties and take action to mitigate by upgrading storm pipe crossings, installing drainage outlets, and improving spillways. Elevation, relocation, or acquisition of affected homes and properties.	1	1	1	1	1	1	1	0	1	1	1	1	1	1	13	High
MD-4 (former MD-6)	Initiate a public outreach program to educate homeowners on the risk of wildfires and personal property mitigation strategies.	1	1	1	1	0	0	0	1	0	0	1	0	1	0	7	Medium
MD-5 (former MD-7)	Purchase or promote NOAA weather radios for critical facilities.	1	1	0	0	1	0	1	0	0	0	1	1	1	0	7	Low
MD-6 (former MD-9)	Raise existing wood frame dining hall structure of Camp Dark Waters so floor level is above the level indicated by flood plain in this particular area of the camp	1	1	1	1	1	1	1	0	0	1	1	1	1	1	12	High





Table 9.21-13. 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
MD-7 (former 10)	Develop and map wildfire evacuation routes throughout the southeastern section of the Township	1	0	1	1	1	1	1	0	1	1	1	1	1	0	11	Medium
MD-8 (former MD-11)	Develop a Wildfire Evacuation Route Awareness Program with related signage delineating safe routes of escape from wildfires	1	0	1	0	1	1	1	0	0	0	1	1	1	0	8	Medium
MD-9 (former MD-17)	Obtain and install backup power sources at critical facilities.	1	1	1	0	1	0	1	1	0	0	1	1	1	1	10	Medium
MD-10	Obtain additional traffic control devices including portable generators for use at intersections to provide power to traffic signals	1	0	1	1	1	1	1	0	0	1	1	1	1	1	11	Medium
MD-11	Elevate bridge & Roadway Route 70 entrance Medford Leas	1	1	1	1	-1	-1	-1	1	1	0	1	-1	1	1	9	Low
MD-12	Coordinate with the facility managers at Burlington County Institute of Tech - W 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	0	1	1	1	1	1	-1	0	1	1	0	0	1	0	7	Medium





Table 9.21-13. 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
	Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.																
MD-13	Coordinate with the facility managers at Jantek Industries 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
MD-14	Coordinate with the facility managers at Medford Leas 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	0	1	1	1	1	1	-1	0	1	1	0	0	1	0	7	Medium





Table 9.21-13. 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
	Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.																
MD-15	Coordinate with the facility managers at Medford Water Pollution Control 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
MD-16	During future updates of the Master Plan, Floodplain Management Plan, the Emergency Operation Plan, or other plans, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation	1	1	1	1	1	1	1	0	0	1	1	0	1	0	10	High





Table 9.21-13. 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
	principles and plan recommendations to update local building and zoning codes to create a more resilient community.																
MD-17	<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"> <li>• Birchwood Drive</li> <li>• Illinois Trial</li> <li>• New Freedom Road</li> <li>• Chairville Road</li> <li>• Haynes Creek Road</li> <li>• Lenape Trail</li> <li>• S Main Street</li> <li>• Bear head Road</li> </ul> <p>Alternatives would include acquisition/relocation or elevation depending</p>	1	1	0	1	1	1	-1	0	0	1	0	1	1	0	8	High





**Table 9.21-13. 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
	on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.																

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



### **9.21.7 Future Needs to Better Understand Risk/Vulnerability**

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None at this time.

### **9.21.8 Hazard Area Extent and Location**

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

### **9.21.9 Additional Comments**

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None at this time.



Figure 9.21-1. Township of Medford Hazard Area Extent and Location Map 1

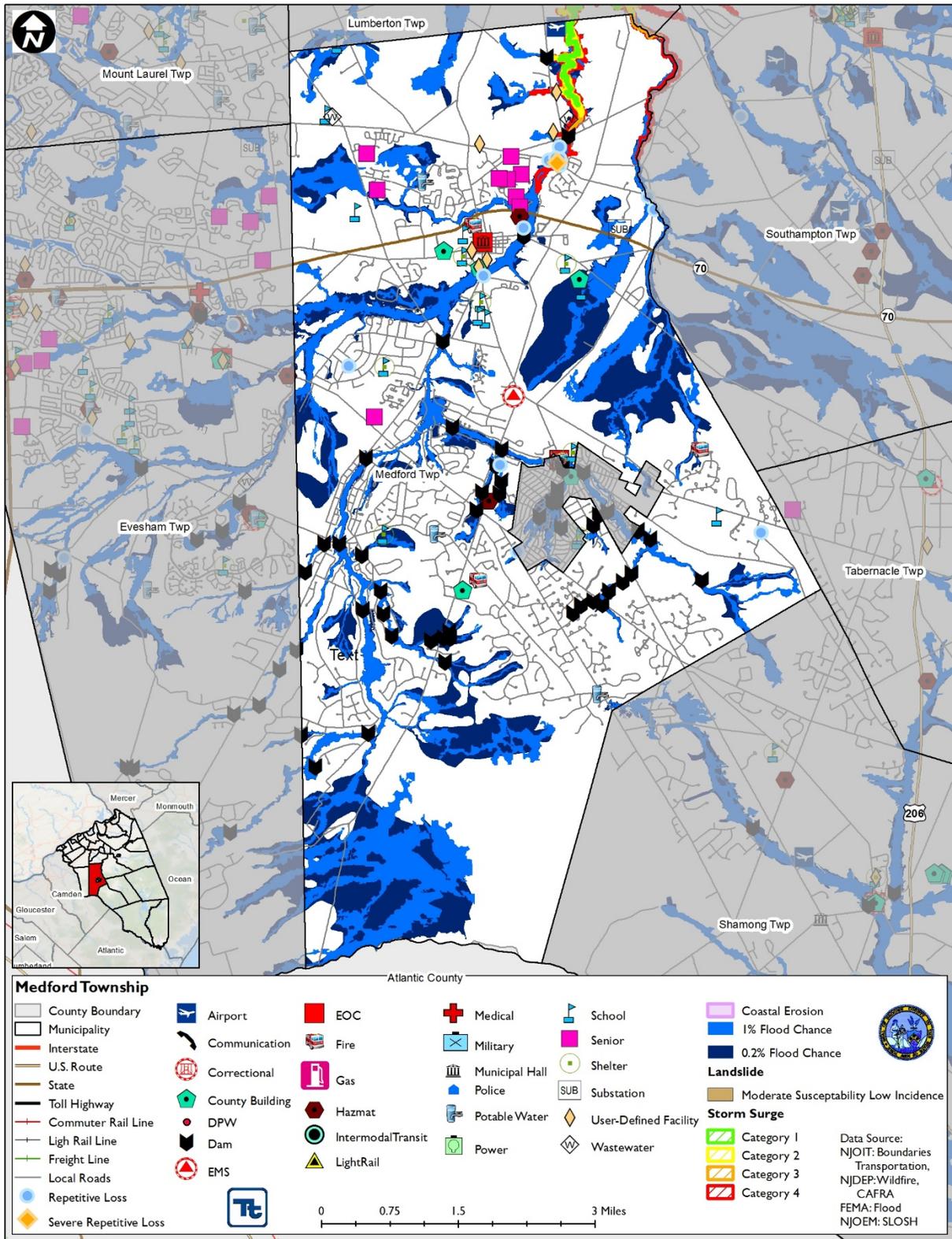
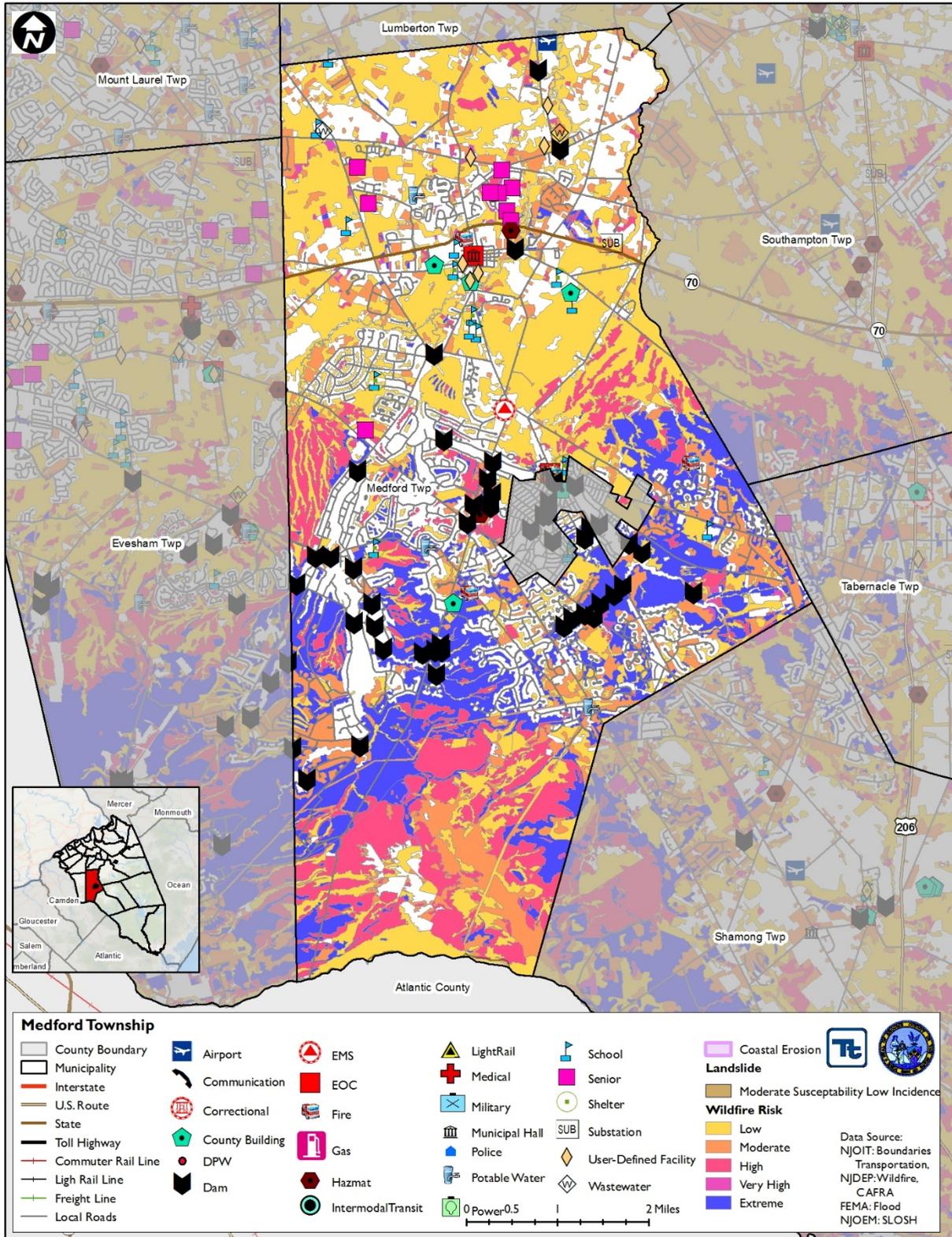




Figure 9.21-2. Township of Medford Hazard Area Extent and Location Map 2





**Action Number:** MD-1 (Former MD-1)  
**Mitigation Action/Initiative:** Debris Southwest Branch Rancocas Creek & Tributaries

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Clearing debris from the southwest branch of the Rancocas Creek & tributaries
<b>Specific problem being mitigated:</b>	Removing tree debris and other vegetation that is obstructing the creek.
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<ol style="list-style-type: none"> <li>1. Work with pinelands preserve alliance to get group to assist with removal.</li> <li>2. Work with local DPW to remove what they can reach.</li> <li>3. Consider grant funding</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Work to remove dead vegetative debris from waterway.
<b>Action/Project Category</b>	Natural Systems Protection
<b>Goals Met</b>	Prevent unintentional dam to allow water to flow through
<b>Applies to existing and or new development, or not applicable</b>	Not Applicable
<b>Benefits (losses avoided)</b>	Reduce flooding
<b>Estimated Cost</b>	<i>High</i>
<b>Priority*</b>	<i>Medium</i>
Plan for Implementation	
<b>Responsible Organization</b>	Neighborhood Services
<b>Local Planning Mechanism</b>	Coordinate volunteer resources to assist
<b>Potential Funding Sources</b>	Municipal budget/ Grant funding
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 03/21/2018 Progress on Action/Project: In progress



**Action Number:** MD-1 (Former MD-1)

**Mitigation Action/Initiative:** Debris Southwest Branch Rancocas Creek & Tributaries

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Reduce backup in flow that leads to flooding upstream
<b>Property Protection</b>	1	
<b>Cost-Effectiveness</b>	-1	
<b>Technical</b>	0	
<b>Political</b>	0	
<b>Legal</b>	0	
<b>Fiscal</b>	-1	
<b>Environmental</b>	1	
<b>Social</b>	0	
<b>Administrative</b>	0	Will require outside assistance
<b>Multi-Hazard</b>	1	
<b>Timeline</b>	0	
<b>Agency Champion</b>	0	
<b>Other Community Objectives</b>	1	Supports flood reduction
<b>Total</b>	5	
<b>Priority (High/Med/Low)</b>	Med	



Action Number: MD-3 (Former MD-5)

Mitigation Action/Initiative: Identify SRL Properties

Assessing the Risk	
<b>Hazard(s) addressed:</b>	SRL Properties
<b>Specific problem being mitigated:</b>	Identifying and documenting SRL Properties
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<ol style="list-style-type: none"> <li>1. Work with homeowners to look at cost effective mitigation strategies</li> <li>2. Work with NJOEM mitigation unit to secure funding to elevate or demo houses 26 &amp; 27 New Freedom Rd</li> <li>3. Look at flood control mechanisms</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Identify and document repetitively flooded properties and take action to mitigate by upgrading storm pipe crossings, installing drainage outlets, and improving spillways. Elevation, relocation, or acquisition of affected homes and properties.
<b>Action/Project Category</b>	Structure and infrastructure projects
<b>Goals Met</b>	Protect life and property
<b>Applies to existing and or new development, or not applicable</b>	Existing structures
<b>Benefits (losses avoided)</b>	Eliminate SRL properties
<b>Estimated Cost</b>	<i>High</i>
<b>Priority*</b>	<i>High</i>
Plan for Implementation	
<b>Responsible Organization</b>	OEM
<b>Local Planning Mechanism</b>	Work with NJOEM Mitigation unit
<b>Potential Funding Sources</b>	Grant funding or homeowner loans
<b>Timeline for Completion</b>	Long
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 03/21/2018 Progress on Action/Project: Ongoing



**Action Number:** MD-3 (Former MD-5)

**Mitigation Action/Initiative:** Identify SRL Properties

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Currently we have two structures that are in need of elevation due to location and repetitive flooding even with minor storms.
<b>Property Protection</b>	1	
<b>Cost-Effectiveness</b>	1	
<b>Technical</b>	1	
<b>Political</b>	1	
<b>Legal</b>	1	
<b>Fiscal</b>	1	
<b>Environmental</b>	0	
<b>Social</b>	1	
<b>Administrative</b>	1	
<b>Multi-Hazard</b>	1	
<b>Timeline</b>	1	
<b>Agency Champion</b>	1	
<b>Other Community Objectives</b>	1	
<b>Total</b>	13	
<b>Priority (High/Med/Low)</b>	High	



**Action Number:** MD-5 (Former MD-7)  
**Mitigation Action/Initiative:** NOAA Radios

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Sever weather events
<b>Specific problem being mitigated:</b>	Increase awareness of significant weather events
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<ol style="list-style-type: none"> <li>1. Purchase NOAA Radios for critical facilities</li> <li>2. Obtain weather monitoring software</li> <li>3. No Action – current problem persists</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Purchase or promote NOAA weather radios for critical facilities
<b>Action/Project Category</b>	EAP
<b>Goals Met</b>	Protect life and property Support COOP
<b>Applies to existing and or new development, or not applicable</b>	N/A
<b>Benefits (losses avoided)</b>	Advance warning for significant events
<b>Estimated Cost</b>	<i>Low</i>
<b>Priority*</b>	<i>Low</i>
Plan for Implementation	
<b>Responsible Organization</b>	Medford OEM
<b>Local Planning Mechanism</b>	
<b>Potential Funding Sources</b>	Municipal Budget
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 03/21/2018 Progress on Action/Project: Ongoing



**Action Number:** MD-5 (Former MD-7)

**Mitigation Action/Initiative:** NOAA Radios

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



**Action Number:** MD-6 (Former MD-9)  
**Mitigation Action/Initiative:** Elevate Camp Dark Waters Dining Hall SRL Property

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flooding
<b>Specific problem being mitigated:</b>	SRL Property
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Obtain a FMA grant to elevate property 2. No Action – current problem persists
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Raise existing wood frame dining hall structure of Camp Dark Waters so floor level is above the level indicated by flood plain in this particular area of the camp.
<b>Action/Project Category</b>	SIP
<b>Goals Met</b>	Protect life & Property
<b>Applies to existing and or new development, or not applicable</b>	Existing Structure
<b>Benefits (losses avoided)</b>	Reduce SRL claims to NFIP
<b>Estimated Cost</b>	<i>High</i>
<b>Priority*</b>	<i>High</i>
Plan for Implementation	
<b>Responsible Organization</b>	Medford OEM
<b>Local Planning Mechanism</b>	Work with NJOEM mitigation unit
<b>Potential Funding Sources</b>	FMA Grant
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date:03/21/2018 Progress on Action/Project: Almost complete Will be done by May 2018



**Action Number:** MD-6 (Former MD-9)

**Mitigation Action/Initiative:** Elevate Camp Dark Waters Dining Hall SRL Property

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	1	
<b>Total</b>	12	
<b>Priority (High/Med/Low)</b>	High	



**Action Number:** MD-9  
**Mitigation Action/Initiative:** Emergency Power at Critical Facilities

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Emergency Power
<b>Specific problem being mitigated:</b>	Evaluating, installing, and replacing generators at critical facilities
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<ol style="list-style-type: none"> <li>1. Evaluate all generators in town</li> <li>2. Replace generators that have exceeded service life</li> <li>3. Install new generators at critical facilities</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Obtain and install back up power sources at critical facilities
<b>Action/Project Category</b>	SIP
<b>Goals Met</b>	Protect life and property COOP
<b>Applies to existing and or new development, or not applicable</b>	New and existing
<b>Benefits (losses avoided)</b>	Ensure critical facilities are able to remain operation during extended power outages
<b>Estimated Cost</b>	<i>High</i>
<b>Priority*</b>	<i>Medium</i>
Plan for Implementation	
<b>Responsible Organization</b>	DPW and Municipality
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	Municipal Budget
<b>Timeline for Completion</b>	short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 03/21/2018 Progress on Action/Project: Complete remove from plan



**Action Number:** MD-9

**Mitigation Action/Initiative:** Emergency Power at Critical Facilities

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	0	
Political	1	
Legal	0	
Fiscal	1	Significant cost to local Govt
Environmental	1	
Social	0	
Administrative	0	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Ronnie Fowler NHS
Other Community Objectives	1	
<b>Total</b>	10	
<b>Priority (High/Med/Low)</b>	Med	



**Action Number:** MD-10  
**Mitigation Action/Initiative:** Purchase additional traffic control devices

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Traffic control post event
<b>Specific problem being mitigated:</b>	Controlling of major intersections and closing of roadways post incident
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<ol style="list-style-type: none"> <li>1. Obtain portable generators that can be wired into traffic signals when power is lost</li> <li>2. Purchase additional portable stop signs and barricades</li> <li>3. Purchase additional rhino barriers</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Obtain additional traffic control devices including portable generators for use at intersections to provide power to traffic signals
<b>Action/Project Category</b>	SIP
<b>Goals Met</b>	Support COOP
<b>Applies to existing and or new development, or not applicable</b>	New and existing
<b>Benefits (losses avoided)</b>	Reduce manpower that has to be committed to intersection for control and provide safer notification in accordance with the MUTCD.
<b>Estimated Cost</b>	<i>Medium</i>
<b>Priority*</b>	<i>Medium</i>
Plan for Implementation	
<b>Responsible Organization</b>	Police/ OEM
<b>Local Planning Mechanism</b>	Look to purchase over 3-5-year plan
<b>Potential Funding Sources</b>	Municipal budget or grant
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 3/21/2018 Progress on Action/Project: New Action



Action Number: MD-10

Mitigation Action/Initiative: Traffic control devices

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	0	
Cost-Effectiveness	1	
Technical	1	Long term solution
Political	1	
Legal	1	Obtain approved devices in accordance with MUTCD
Fiscal	1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Police Chief
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	Medium	



**Action Number:** MD-11  
**Mitigation Action/Initiative:** Elevate bridge & Roadway Route 70 entrance Medford Leas

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flooding of roadway
<b>Specific problem being mitigated:</b>	Elevate bridge and roadway out of flood levels
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. No action – current problem persists 2. Construct new bridge and roadway ramp – cost-prohibitive 3. Construct floodwalls around infrastructure – will divert water elsewhere and increase flow rate
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Work with private partner at LTC facility to elevate roadway and bridge to reduce flooding and allow for ingress and egress from property during flood events.
<b>Action/Project Category</b>	SIP
<b>Goals Met</b>	Protect life and Property
<b>Applies to existing and or new development, or not applicable</b>	Existing construction
<b>Benefits (losses avoided)</b>	Provide secondary means of ingress and egress during flooding events
<b>Estimated Cost</b>	<i>High</i>
<b>Priority*</b>	<i>Low</i>
Plan for Implementation	
<b>Responsible Organization</b>	Medford Leas/ Medford OEM
<b>Local Planning Mechanism</b>	Work with private partner to obtain grant funding
<b>Potential Funding Sources</b>	Grants
<b>Timeline for Completion</b>	Long term
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 03/21/2018 Progress on Action/Project: New Action



**Action Number:** MD-11

**Mitigation Action/Initiative:** Elevate bridge & Roadway Route 70 entrance Medford Leas

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Provide secondary means of egress from property
<b>Property Protection</b>	1	
<b>Cost-Effectiveness</b>	1	
<b>Technical</b>	1	
<b>Political</b>	-1	
<b>Legal</b>	-1	Private facility and roadway
<b>Fiscal</b>	-1	Grant funding
<b>Environmental</b>	1	
<b>Social</b>	1	
<b>Administrative</b>	0	
<b>Multi-Hazard</b>	1	
<b>Timeline</b>	-1	
<b>Agency Champion</b>	1	
<b>Other Community Objectives</b>	1	
<b>Total</b>	9	
<b>Priority (High/Med/Low)</b>	Low	



**Action Number:**

MD-12

**Mitigation Action Name:**

Coordinate with the facility managers at Burlington County Institute of Tech - M 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	
<b>Hazard(s) addressed:</b>	Flood, Severe Storm
<b>Specific problem being mitigated:</b>	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	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Floodproof existing structures – May not necessarily reduce risk. Construct floodwalls to stop flood issues. – Will most likely interrupt natural floodplain function.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Mitigation of critical facilities.
<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>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Municipality with support from County
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	HMA Grants, Municipal Budget
<b>Timeline for Completion</b>	Short Term, DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 5/31/18 Status: New Action



**Action Number:**

MD-12

**Mitigation Action Name:**

Coordinate with the facility managers at Burlington County Institute of Tech - M 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	Provide facility operator ways to protect their structure from future flood events and damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	The township has the administrative capability to complete this project
Multi-Hazard	0	Flood
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	7	
<b>Priority (H/M/L)</b>	Medium	

**Action Number:**

MD-13





**Mitigation Action Name:**

Coordinate with the facility managers at Jantek Industries 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	
<b>Hazard(s) addressed:</b>	Flood, Severe Storm
<b>Specific problem being mitigated:</b>	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	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Floodproof existing structures – May not necessarily reduce risk. Construct floodwalls to stop flood issues. – Will most likely interrupt natural floodplain function.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Mitigation of critical facilities.
<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>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Municipality with support from County
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	HMA Grants, Municipal Budget
<b>Timeline for Completion</b>	Short Term, DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 5/31/18 Status: New Action



**Action Number:**  
**Mitigation Action Name:**

MD-13

Coordinate with the facility managers at Jantek Industries 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	Provide facility operator ways to protect their structure from future flood events and damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	The township has the administrative capability to complete this project
Multi-Hazard	0	Flood
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	7	
<b>Priority (H/M/L)</b>	Medium	



**Action Number:**

MD-14

**Mitigation Action Name:**

Coordinate with the facility managers at Medford Leas 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	
<b>Hazard(s) addressed:</b>	Flood, Severe Storm
<b>Specific problem being mitigated:</b>	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	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Floodproof existing structures – May not necessarily reduce risk. Construct floodwalls to stop flood issues. – Will most likely interrupt natural floodplain function.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Mitigation of critical facilities.
<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>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Municipality with support from County
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	HMA Grants, Municipal Budget
<b>Timeline for Completion</b>	Short Term, DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 5/31/18 Status: New Action



**Action Number:**  
**Mitigation Action Name:**

MD-14

Coordinate with the facility managers at Medford Leas 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	Provide facility operator ways to protect their structure from future flood events and damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	The township has the administrative capability to complete this project
Multi-Hazard	0	Flood
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	7	
<b>Priority (H/M/L)</b>	Medium	



**Action Number:**

MD-15

**Mitigation Action Name:**

Coordinate with the facility managers Medford Water Pollution Control 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	
<b>Hazard(s) addressed:</b>	Flood, Severe Storm
<b>Specific problem being mitigated:</b>	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	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Floodproof existing structures – May not necessarily reduce risk. Construct floodwalls to stop flood issues. – Will most likely interrupt natural floodplain function.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Mitigation of critical facilities.
<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>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Municipality with support from County
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	HMA Grants, Municipal Budget
<b>Timeline for Completion</b>	Short Term, DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 5/31/18 Status: New Action



**Action Number:**  
**Mitigation Action Name:**

MD-15

Coordinate with the facility managers at Medford Leas 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	Provide facility operator ways to protect their structure from future flood events and damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	1	The township has the administrative capability to complete this project
Multi-Hazard	0	Flood
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	7	
<b>Priority (H/M/L)</b>	Medium	



**Action Number:** MD-17

**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:

- Birchwood Drive
- Illinois Trail
- New Freedom Road
- Chairville Road
- Haynes Creek Road
- Lenape Trail
- S Main Street
- Bear head Road

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	
<b>Hazard(s) addressed:</b>	Flood
<b>Specific problem being mitigated:</b>	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	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues Construct flood walls/barriers around vulnerable areas – costly and can divert floodwaters to other areas Deployable flood barriers for vulnerable areas – Requires a great deal of work to implement prior to each event
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	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.
<b>Mitigation Action Type</b>	SIP
<b>Goals Met</b>	1, 2
<b>Critical Facility (Y/N)</b>	No
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Municipality with support from County
<b>Local Planning Mechanism</b>	Hazard mitigation, emergency management
<b>Potential Funding Sources</b>	Grant funding; Municipal budget
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 5/31/18 Status: New Action



**Action Number:**  
**Mitigation Action Name:**

MD-17

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:

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Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Educate residents about options to mitigate their home to protect themselves from flood damages
Property Protection	1	Educate residents about options to mitigate their home to their home from flood damages
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	8	
<b>Priority (H/M/L)</b>	High	