



## 9.18 Township of Lumberton

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

### 9.18.1 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
Lt. Edward Begolly, Lumberton PD/OEM 35 Municipal Drive, Lumberton, NJ 08048 609.267.3217 ext. 125 djanuseski@lumbertontwp.com	Brandon Umba, Administrator 35 Municipal Drive, Lumberton, NJ 08048 609.267.3217 ext. 130 bumba@lumbertontwp.com

### 9.18.2 Municipal Profile

The Township of Lumberton grew out of two bordering towns: Eayrestown, settled by Richard and Elizabeth Eayres in the late 1600's. Eayrestown was the first substantial settlement in this area. William Foster settled Fostertown in 1735. His plantation was on what is now known as West Bella Bridge Road. There is not much left of these two towns today, but a few houses and street names.

The Township of Lumberton is governed by the Township form of Government. Under the current township government laws, the township committee remains the backbone of the municipality’s government. Voters elect, at-large, the township committee comprising three members. The elections are partisan, and the committee members serve staggered three-year terms. The township committee elects the mayor for a one-year term. The mayor serves as chair of the township committee and has powers vested in the mayor’s office by general law. In addition to the elected chair, the Township of Lumberton has a Deputy Mayor to serve within the Committee.

The Township of Lumberton is located in the north-central portion of Burlington County. The township is bordered by Medford and Southampton to the southwest and southeast, respectively, Mount Laurel to the west, Eastampton to the east, Hainesport to the northwest, and Mount Holly to the northeast. Lumberton has a total area of 13 square miles, of which 12.9 square miles is land and 0.1 square miles is water. There are several unincorporated communities found within the Township: Brown, Eayrestown, Fostertown, and Newbolds Corner. According to the 2010 Census, the community's population was 12,559.

### 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 9.18.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.18-1. 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>					
Waverly Point	Res	25	Municipal Dr. 19.58 1/2	None	In Progress
Starbucks	Comm	1	1537 Rt 38; Block 1403 4.01-03	Could not locate.	In Progress





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>Known or Anticipated Development in the Next Five (5) Years</b>					
Quakerstate and Lube	Comm	1	1643 Rt 38; Block 18 L 9	None	Anticipated
Republic bank	Comm	1	1544 Rt 38; Block 15 lot 2	None	Anticipated
Liquor Fair	Comm	1	1670 Rt 38; Block 22.01 Lot 1.04	Wildfire: High	Anticipated

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

### 9.18.3 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 9.18-2. 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	Downed trees and wires, power outages, road closures
June 23, 2015	Severe Storm (DR-4231)	Yes	Downed trees and wires, power outages, road closures
January 22-24, 2016	Severe Winter Storm (DR-4264)	Yes	Downed trees and wires, power outages, road closures

Notes:

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

### 9.18.4 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 Lumberton. 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 Lumberton. 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 9.18-3. 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: \$53,558,589	Occasional	12	Low
Drought	Damage estimate not available.	Frequent	30	Medium
Earthquake	100-Year GBS: \$0 500-Year GBS: \$3,006,570 2,500-Year GBS: \$44,294,305	Occasional	28	Medium
Flood*	1% Annual Chance: \$194,758,556	Frequent	18	High
Landslide	RCV Exposed to Landslide Hazard Area \$0	Rare	6	Low
Severe Storm	100-year MRP: \$4,488,461 500-year MRP: \$20,719,417 Annualized: \$237,536	Frequent	48	High
Severe Winter Weather	1% GBS: \$34,248,969 5% GBS: \$171,244,846	Frequent	51	High
Wildfire*	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$41,156,082	Frequent	18	Medium

**Notes:**

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

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

The following table summarizes the NFIP statistics for the Township of Lumberton.

**Table 9.18-4. 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 Lumberton	79	187	\$6,782,899.98	44	7	10

Source: FEMA Region 2 2017, 2018

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

(2) Total building and content losses from the claims file provided by FEMA Region 2.

(3) The policies inside and outside of the flood zones are based on the addresses geocoded from the FEMA Region 2 policy file – 10/31/2017.

Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.





A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

### Critical Facilities

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

**Table 9.18-5. 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
Lumberton Fire Co #1	Fire	X	X	81	0
Mount Holly Heliport	Airport	X	X	-	-

Source: FEMA 2017, Burlington County

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

### Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- Township of Lumberton – flooding is primarily due to torrential rains during summer and autumn months. A flood occurred in September 1940 that caused dam failures at Taunton and Medford Lakes.
- Townships of Lumberton and Medford – experienced major flooding in 2004 due to heavy rainfall. 17 dams failed, and 28 more dams were damaged along various streams. For additional details see USGS, Scientific Investigations Report 2006-5096, “Flood of July 12-13, 2004, Burlington and Camden Counties, South-Central New Jersey” (USGS,2006).
- A significant portion of Lumberton Township has slopes greater than 10% (the percent of vertical rise to horizontal distance). The steepest slopes are very steep indeed – up to 40% in some cases. Steep slopes are found almost entirely along the waterways of the township, including a variety of the smaller streams, and especially the south sides of Rancocas Creek’s main branch and southwest branch. Most of these slopes are well vegetated, although farm fields and residential properties may extend to the edge of the plateau. In some locations, development has occurred on more moderate slopes, particularly the older residential neighborhoods near Creek Road and Chestnut Street. In many areas, buildings have been constructed on steep slopes or in floodplains. In general, development of steep slope areas is inadvisable because it can result in soil instability, erosion, sedimentation of the stream below, increased stormwater runoff, and flooding. This causes habitat destruction, and potential damage to property. Erosion on steep slopes is especially prevalent where excessive tree removal has taken place.

### 9.18.5 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 Lumberton.

**Table 9.18-6. 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	L.D.B.	Lumberton Township Periodic Reexamination of Master Plan, 2009
Capital Improvements Plan	Yes	Local	Admin	VARIOUS ORDINANCE
Floodplain Management / Basin Plan	Yes	State	Construction	CH. 154
Stormwater Management Plan	Yes	Local/State	Admin/PW	CH. 247 Stormwater Control CH. 248 Stormwater Management
Open Space Plan	Yes	Local/County	Admin	
Stream Corridor Management Plan	No	County	Admin	
Watershed Management or Protection Plan	No	County	Admin	
Economic Development Plan	Yes	Local	Admin	
Comprehensive Emergency Management Plan	Yes	Local	OEM	EOP
Emergency Operation Plan	Yes	Local	OEM	EOP
Post-Disaster Recovery Plan	Yes	Local	OEM	EOP
Transportation Plan	Yes	Local/Co	OEM	EOP
Strategic Recovery Planning Report	No	County		
Other Plans:	No			
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local	Twp Construction	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Const/Zoning	CH.130
Subdivision Ordinance			Zoning	
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Construction Official	CH.157
NFIP: Cumulative Substantial Damages	Yes	Federal	Construction	
NFIP: Freeboard	Yes	State, Local		
Growth Management Ordinances	No		Land Use Development Board	Development Regulations Ordinance CH. 130
Site Plan Review Requirements	Yes	Local/State	CONST/LDB	



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.)
Stormwater Management Ordinance	Yes	Local/State	ADMIN/PW	Stormwater Management CH. 248
Municipal Separate Storm Sewer System (MS4)	Yes	Local		
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	Yes	State		
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	N/A			

**Administrative and Technical Capability**

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

**Table 9.18-7. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Land Development Board
Mitigation Planning Committee	Yes	Admin
Environmental Board/Commission	Yes	Shade Tree Commission
Open Space Board/Committee	No	Twp Committee
Economic Development Commission/Committee	Yes	Twp Committee
Maintenance programs to reduce risk	No	
Mutual aid agreements	Yes	Local Departments And Co
<b>Technical/Staffing Capability</b>		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Planner And Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Both
Planners or engineers with an understanding of natural hazards	Yes	
NFIP Floodplain Administrator (FPA)	Yes	CONSTRUCTION OFFICIAL
Surveyor(s)	No	
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	Outdated Training From Dep OEM
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	OEM



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

### Fiscal Capability

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

**Table 9.18-8. 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	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	Yes
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 Lumberton.

**Table 9.18-9. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3	7/6/2016
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3	2016
Storm Ready Certification	No	N/A	N/A
Firewise Communities classification	No	N/A	N/A
Natural disaster/safety programs in/for schools	No		
Organizations with mitigation focus (advocacy group, non-government)	No		
Public education program/outreach (through website, social media)	Yes		
Public-private partnership initiatives addressing disaster-related issues	No		

Note:



N/A Not applicable  
 NP Not participating  
 - Unavailable

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- The National Weather Service Storm Ready website at <http://www.stormready.noaa.gov/index.html>
- The National Firewise Communities website at <http://firewise.org/>

**Self-Assessment of Capability**

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

**Table 9.18-10. Self-Assessment Capability for the Municipality**

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

**National Flood Insurance Program**

**NFIP Floodplain Administrator (FPA)**

Brad Regn, Construction Official

**Flood Vulnerability Summary**

The Township of Lumberton does maintain lists or inventories of structures that have been damaged by flooding. During Sandy and other events there was a total of 85 residential and two commercial properties that sustained structural damage. The Township does not make Substantial Damage estimates. Currently, there are a total of





four properties that have or are participating in the Hazard Mitigation Grant Program (HMGP), three of which chose elevation and one chose to be bought out and demolished. The property mitigations are being funded by the Blue Acres program and a combination of property owner funds and grant funds.

### Resources

The Construction Official assumes the responsibilities of floodplain administration for the Township of Lumberton. NFIP administration services and functions provided to residents of Lumberton include permit review and issuance, inspections, and record keeping. At this time, there are no education or outreach programs to the community regarding flood hazards/risk or flood risk reduction. The Construction Official stated that there are currently no barriers to running an effective floodplain management program and that he is adequately supported and trained to fulfil the responsibilities as the municipal flood administrator. The Construction Official would consider attending continuing education and certification training on floodplain management if it were offered in the future.

### Compliance History

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

### Regulatory

The Township of Lumberton's floodplain ordinance meets the minimum set by FEMA and the State of New Jersey. There are no additional ordinances that support floodplain management within the Township. The Township is currently not in the CRS program; however, the Township has showed an increased interest in the CRS program over the years and with the additional homes that have been elevated it would make perfect sense to explore such a program.

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

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

### Planning

**Master Plan** In October of 2009 Lumberton Township finalized the "Periodic Reexamination of Master Plan" updates and guides community development in the Township. This reexamination included a review of past conditions and changes in goals and objectives, changing conditions, changes in planning assumptions, recommended goals, policy recommendations, and redevelopment.

### 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 Lumberton is Tier A municipality.

**Stormwater Management:** Chapter 248 of the municipal code discusses stormwater management. The chapter is intended to regulate improper disposal of waste, wildlife feeding, illicit connections, refuse containers/dumpsters, and private storm drain inlet retrofitting in order to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

**Flood Damage Prevention:** The purpose of the flood damage prevention ordinance (Chapter 157 of the municipal code) is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

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

### Operational and Administration

The Township of Lumberton has an animal control office, assessor's office, clerk's office, construction and inspection office, court, a land development board, public works, recreation, senior services, tax collector's office, and a vital statistics office.

### Funding

The Township of Lumberton has mutual aid agreements with local departments and companies. 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, impact fees for homebuyers or developers of new developments/homes, stormwater utility fee, the ability to incur dept through general obligation bonds, the ability to incur debt through private activity bonds, other Federal or State funding programs, and other space acquisition funding programs.

### Education and Outreach

The Township of Lumberton has a website where one can access information about Township Departments & Services, the Community, Public Works, Recreation, Police, Fire, EMS, the Township Code Book, Tax Maps, Ordinances, Resolutions, and Stormwater Education. The webpage also updates residents on current events. The Township Police Department also maintains a Facebook page that provides information about hazards like when high water is possible for flood prone areas, when freezing rain is forecast, etc.

## 9.18.6 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 9.18-11. 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.
LT-1	Relocation of current Firehouse	Lumberton OEM, Committee, Lumberton Fire Co Support: Co OEM	Complete	Bonded through local funds	1. Discontinue 2. Funding secured; relocating Firehouse
LT-2	Acquisition of a Tidal Gauge/Early Warning Device	Lumberton OEM Support: Co OEM	In Progress	Have obtained quotes and also currently working with a local university to attempt a coop project to assist in web based reading of gauge.	1. Include in 2019 HMP 2. Seek funding
LT-3	Debris removal of the Rancocas Creek and clean out of sediment from the creek as the result of 2007, 2007 and 2011 flood occurrences.	Lumberton OEM, Support: Co OEM, ARMY Corp, NJDEP	Complete	Constant ongoing project.	1. Discontinue 2. Ongoing capability
LT-4	Elevation of properties along the Rancocas Creek and Acquisition of residences with substantial damage/repetitive claims.	Lumberton OEM Support: Co OEM, NJ OEM, FEMA, NJDEP	Complete	Just completed 3 homes elevated 1 demo possibility of additional homes depending on current upgrade. Also 1 homeowner elevated on his own.	1. Discontinue 2. Complete
LT-5	Education of Public and also government officials in mitigation projects and relief	Lumberton OEM	No Progress	Would like to introduce short web or podcast	1. Include in 2019 HMP 2. Determine most effective method
LT-6	Improve Communication notifications system by upgrading warning devices prior to and after entry to area of the town susceptible to flooding with two marquis solar powered signs	Lumberton OEM Support: Co OEM	Complete	Added additional VMS Boards and enhanced website	1. Discontinue
LT-7	Update Ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically those identified along the floodplain.	Lumberton OEM	Complete	Updated local ordinances to include additional board height (free board +1)	1. Discontinue



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.
LT-8	Evaluate benefits of participating in CRS program	Twp. Committee; Planning	No Progress	Budget constraints	Include in 2019 HMP Seek funding
LT-9	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> <li>Disaster preparedness</li> <li>Hazard mitigation</li> </ul>	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	No Progress	Budget constraints	Include in 2019 HMP Seek funding
LT-10	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	Municipality with support from County, NJOEM and FEMA	In Progress	Added to Current Emergency Services Building Project	1. Include in 2019 HMP 2. Work to complete project
LT-11	Obtain and install backup power sources at critical facilities.	Municipality with support from County, NJOEM and FEMA	No Progress	Funding issue	1. Include in 2019 HMP 2. Secure funding
LT-12	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	Municipality with support from County, NJOEM, FEMA and surrounding communities	Complete	MOUs in place	1. Discontinue
LT-13	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	Continue to support plan	1. Discontinue
LT-14	Promote the participation of Floodplain Administrator within	Municipality with support	Complete	Participate with county projects and workshops	1. Discontinue





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.
	the planning process and other related activities.	from County, NJOEM and FEMA			2. FPA participating in the planning process and related activities
LT-15	Enhance resilience to severe storms by joining the NOAA "Storm Ready" program.	Municipality with support from County, NJOEM and FEMA	Complete	Ready link on website	1. Discontinue
LT-16	Provide public education and outreach on proper installation and/or use of backup power	Municipal Clerk	No Progress	Budget constraints	1. Include in 2019 HMP 2. Secure funding
LT-17	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	Stream clean prior to Oct 2017 event	1. Discontinue 2. Ongoing capability



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

The Township of Lumberton 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 9.18-12 summarizes the comprehensive-range of specific mitigation initiatives the Township of Lumberton 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 9.18-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.18-12. 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
LT-1 (former LT-2)	Acquisition of a Tidal Gauge/Early Warning Device	No	Flood	1, 5	Lumberton OEM Support: Co OEM	High	Medium	Grant funding	Short	High	NRP	NR, PI
LT-2 (former LT-5)	Education of Public and also government officials in mitigation projects and relief	No	All	5	Lumberton OEM	High	Low	Municipal budget grant funding	Short	High	EAP	PI
LT-3 (former LT-8)	Evaluate benefits of participating in CRS program	No	Flooding	1, 2, 5	Twp. Committee; Planning	High	High	Grant funding, Municipal budget, NFIP Programs	Short	High	LPR	PR
LT-4 (former LT-9)	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	No	All	1, 2, 5	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	High	Low	Municipal budget grant funding	Short	High	EAP	PI
LT-5 (former LT-10)	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	No	All	6	Municipality with support from County, NJOEM and FEMA	High	Low	CDBG, Municipal budget	Short	Medium	LPR	PR
LT-6 (former LT-11)	Obtain and install backup power sources at critical facilities.	Yes	All	1, 2, 6	Municipality with support from County, NJOEM and FEMA	High	High	Grants, Safety Money, Municipal budget	Short	High	SIP	PP
LT-7 (former LT-16)	Provide public education and outreach on proper installation and/or use of backup power	N/A	All	1, 2, 5	Municipal Clerk	Medium	Low	Municipal Budget	Short	High	EAP	PR
LT-8	Obtain Generator to power PW Mechanic Garage which is	Yes	All	1, 2, 6	OEM/PW	High	High	Grant funding,	Short	High	SIP	PP





Table 9.18-12. 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
	essential in keeping operations afloat during emergencies.							Municipal funding				
LT-9	Weather Station at new Emergency Services Building with monitoring and 24-hour web access	No	All	All	OEM	High	Low	Grant funding, municipal budget	Medium	High	EAP	PR, PI
LT-10	Alert System to include additional audible devices throughout the township.	No	All	1, 2, 5	OEM/FIRE/EMS/Twp	High	Medium	Grant funding, municipal budget	Medium	Medium	EAP	PR, PI
LT-11	Enhance Water Rescue Services with new or upgraded watercraft	No	Flood, Severe Storm	1, 3	All Districts	High	Medium	Grant funding, Government surplus, municipal budget	Short	Medium	SIP, NRP	PR, PI, NR
LT-12	Water Drainage Mitigation Project rear of Buttonwood Preschool; Water Drainage Mitigation Project rear of Buttonwood Preschool	No	Flood	1, 2, 6	PW/Admin/OEM	High	High	Local budget	Short	High	SIP	PI
LT-13	Coordinate with the facility managers at Lumberton Fire Co #1 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
LT-14	Coordinate with the facility managers at Mount Holly Heliport in the Township to support the mitigation of	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 9.18-12. 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
	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.											
LT-15	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community.	No	All Hazards	All	Municipality	High	Low	Municipal Budget	Short Term, Depending on update schedule	High	LPR	PR, PI
LT-16	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>• Creek Road</li> <li>• Main Street</li> <li>• Church Street</li> <li>• Edward Ave</li> <li>• Bridge Road</li> </ul>	No	Flood	1, 2	Municipality with support from County	High	High	Grant funding; Municipal budget	Short	High	SIP	PP





**Table 9.18-12. 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
	<ul style="list-style-type: none"> <li>Ed Browns Meadow Lane</li> <li>Willow Street</li> <li>Point Street</li> <li>2<sup>nd</sup> Street</li> <li>Landing Street</li> </ul> <p>Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.</p>											

**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

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





Costs:

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 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 9.18-13. 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
LT-1 (former LT-2)	Acquisition of a Tidal Gauge/Early Warning Device	1	1	1	1	1	1	1	0	1	1	1	1	1	0	12	High
LT-2 (former LT-5)	Education of Public and also government officials in mitigation projects and relief	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
LT-3 (former LT-8)	Evaluate benefits of participating in CRS program	0	1	1	0	1	1	1	0	1	0	1	0	1	1	9	Medium
LT-4 (former LT-9)	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	1	1	1	-1	0	0	0	1	1	0	1	0	1	1	7	Medium
LT-5 (former LT-10)	Improve municipal communications systems to include information sharing with county and surrounding municipalities.	1	1	0	1	1	0	1	0	1	0	1	0	0	1	8	Medium
LT-6 (former LT-11)	Obtain and install backup power sources at critical facilities.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
LT-7 (former LT-16)	Provide public education and outreach on proper installation and/or use of backup power																
LT-8	Obtain Generator to power PW Mechanic Garage which is	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High





Table 9.18-13. 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
	essential in keeping operations afloat during emergencies.																
LT-9	Weather Station at new Emergency Services Building with monitoring and 24-hour web access	1	1	1	1	0	0	0	1	1	0	1	0	1	1	9	Medium
LT-10	Alert System to include additional audible devices throughout the township.	1	1	1	0	0	0	0	0	0	0	1	0	1	1	6	Medium
LT-11	Enhance Water Rescue Services with new or upgraded watercraft	1	0	0	0	0	0	0	0	0	0	0	1	1	1	4	Low
LT-12	Water Drainage Mitigation Project rear of Buttonwood Preschool; Water Drainage Mitigation Project rear of Buttonwood Preschool	1	1	1	1	1	1	0	1	1	0	1	1	1	1	12	High
LT-13	Coordinate with the facility managers at Lumberton Fire Co #1 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	0	1	1	1	1	1	-1	0	1	1	0	0	1	0	7	Medium



Table 9.18-13. 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
	action based on available funding and local match ability.																
LT-14	Coordinate with the facility managers at Mount Holly Heliport 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
LT-15	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to	1	1	1	1	1	1	1	0	0	1	1	0	1	0	10	High





Table 9.18-13. 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
	create a more resilient community.																
LT-16	<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>• Creek Road</li> <li>• Main Street</li> <li>• Church Street</li> <li>• Edward Ave</li> <li>• Bridge Road</li> <li>• Ed Browns Meadow Lane</li> <li>• Willow Street</li> <li>• Point Street</li> <li>• 2<sup>nd</sup> Street</li> <li>• Landing Street</li> </ul> <p>Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits</p>	1	1	0	1	1	1	-1	0	0	1	0	1	1	0	8	High





**Table 9.18-13. 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
	versus cost, and willing participation of property owners.																

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



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

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None at this time.

### **9.18.8 Hazard Area Extent and Location**

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

### **9.18.9 Additional Comments**

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None at this time.



Figure 9.18-1. Township of Lumberton Hazard Area Extent and Location Map 1

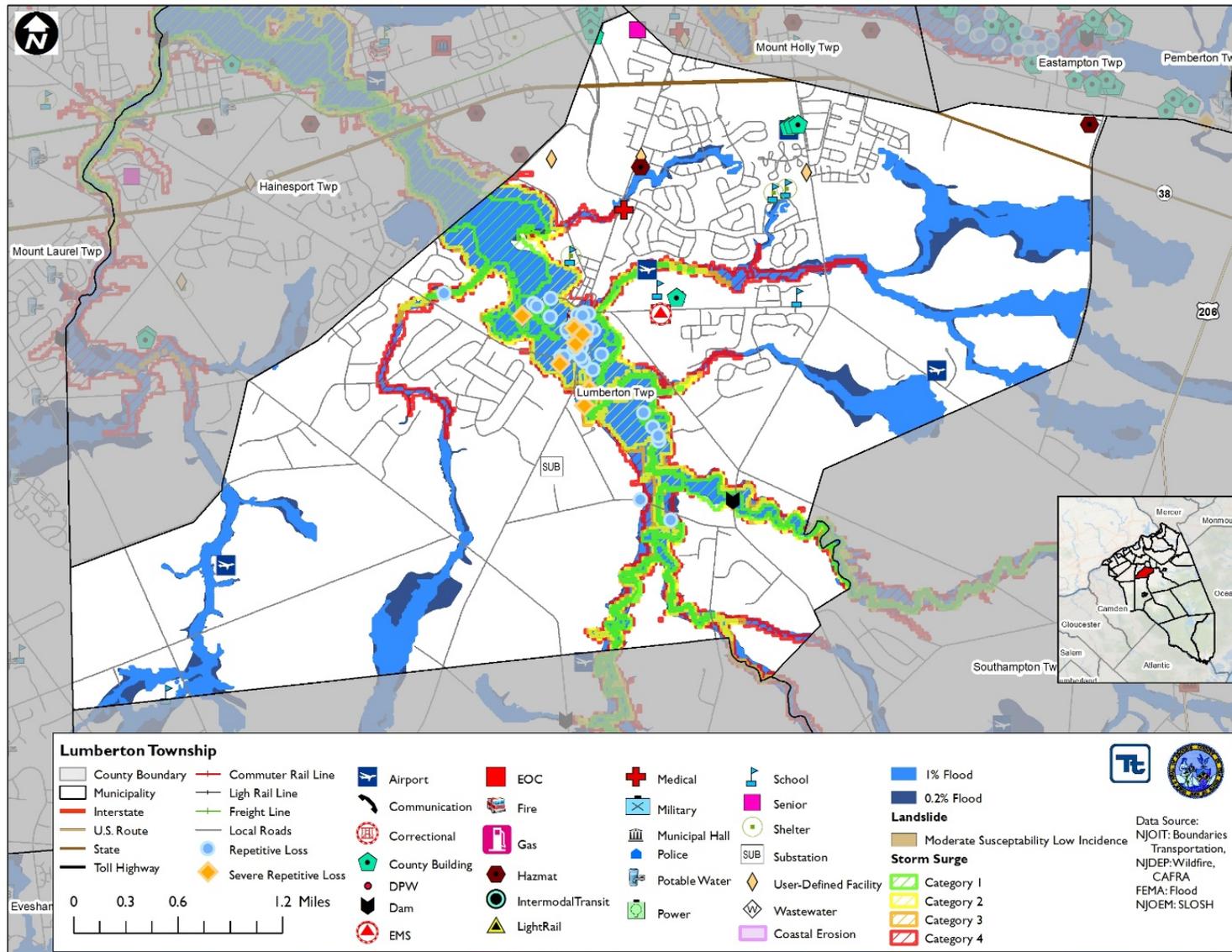
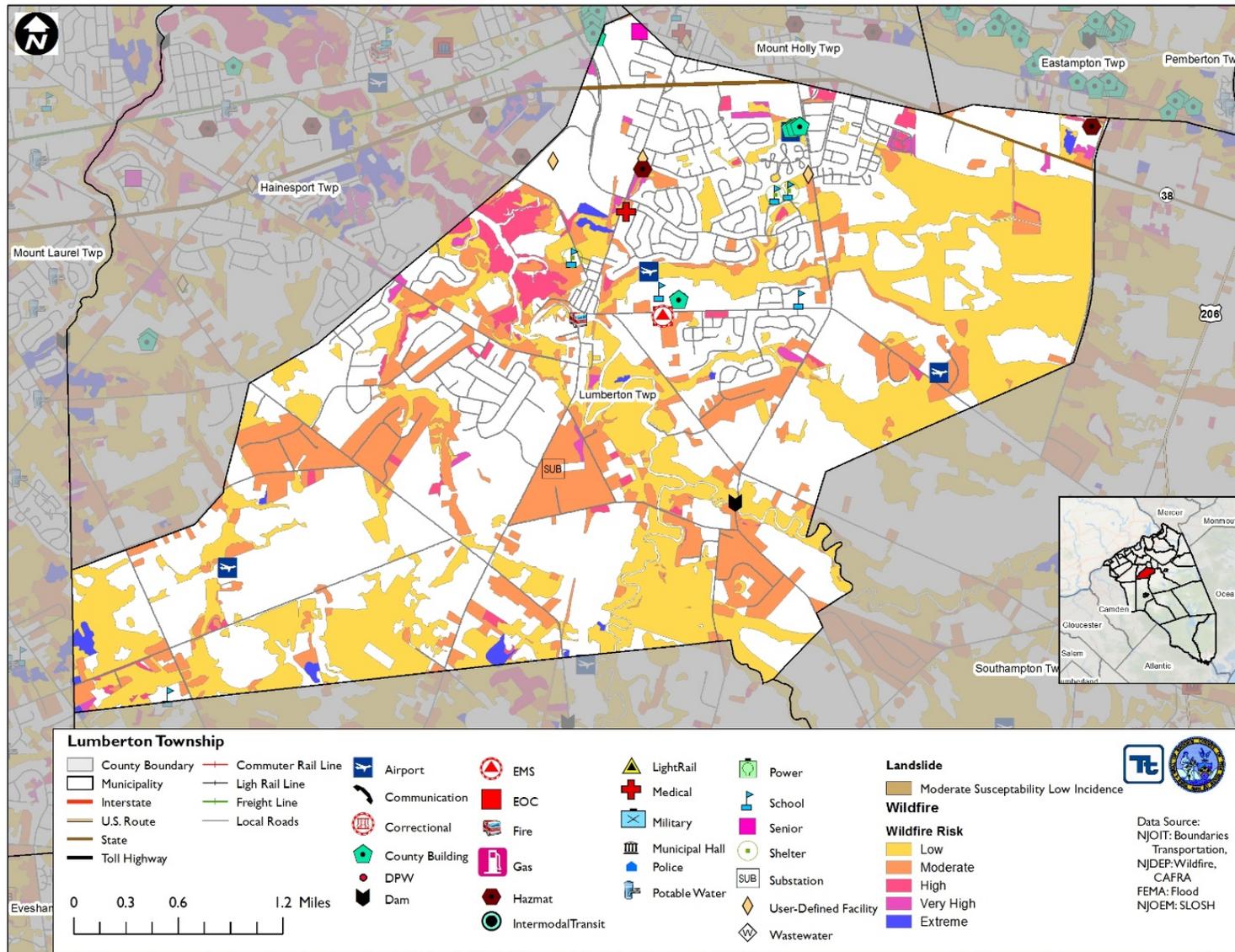




Figure 9.18-2. Township of Lumberton Hazard Area Extent and Location Map 2





**Action Number:** LT-1 (Former LT-2)  
**Mitigation Action/Initiative:** Acquisition of a Tidal Gauge/Early Warning Device

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flooding, Severe Storm
<b>Specific problem being mitigated:</b>	Early Warning and monitoring of creek levels
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. Look at Flood control mechanisms</li> <li>2. Work with CoOEM</li> <li>3. Work with township committee on improving warning</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Identifying better flood warning and monitoring with early notification
<b>Action/Project Category</b>	Natural Systems Protection
<b>Goals Met</b>	1, 5
<b>Critical Facilities (Y/N)</b>	No
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	Medium
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	OEM
<b>Local Planning Mechanism</b>	Work with CoOEM, NJOEM And Co authorities
<b>Potential Funding Sources</b>	Grant funding
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 3/27/2018 Progress on Action/Project: Collection of competitive bids



**Action Number:** LT-1 (Former LT-2)

**Mitigation Action/Initiative:** Tidal Gauge/Early Warning Device

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Improve flood warning time to inform residents of potential flooding and allows them enough time to evacuate, if needed
<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	Flood, Severe Storm
<b>Timeline</b>	1	
<b>Agency Champion</b>	1	
<b>Other Community Objectives</b>	0	
<b>Total</b>	12	
<b>Priority (High/Med/Low)</b>	High	



**Action Number:** LT-6 (Former LT-11)  
**Mitigation Action/Initiative:** Obtain Back up power sources at critical facilities within the township

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Lack of power to critical facilities
<b>Specific problem being mitigated:</b>	Provide power sources and backup power to emergency operations to include gas pumps, New EOC, EMS building and Public Works/Garage
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. No Action - current problem continues
	2. Solar panels: weather dependent and costly.
	3. Mobile generator: may lack sufficient power supply or run time
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Obtain alternative power sources for critical facilities to include gas pumps, garage mechanic area and public works.
<b>Action/Project Category</b>	Structure and Infrastructure
<b>Goals Met</b>	1, 2, 6
<b>Critical Facilities (Y/N)</b>	Yes
<b>Benefits (losses avoided)</b>	Continual operations
<b>Estimated Cost</b>	<i>High</i>
<b>Priority*</b>	<i>High</i>
Plan for Implementation	
<b>Responsible Organization</b>	OEM, Local Township
<b>Local Planning Mechanism</b>	NJOEM, CoOEM, Local gov
<b>Potential Funding Sources</b>	Grants, Safety Money and local resources
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date:3/20/2018 Progress on Action/Project: In Progress



**Action Number:** LT-6 (Former LT-11)

**Mitigation Action/Initiative:** Obtain Back up power sources at critical facilities within the township

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures operations in all circumstances
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Provides critical power during outages and allows operations without interruption
Other Community Objectives	1	
<b>Total</b>	14	
<b>Priority (High/Med/Low)</b>	High	



**Action Number:** LT-8  
**Mitigation Action/Initiative:** Obtain Generator DPW Mechanic Garage

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Operations and Power
<b>Specific problem being mitigated:</b>	Obtain a generator for DPW mechanics garage and gas pumps
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	No Action - current problem continues
	Solar panels: weather dependent and costly.
	Mobile generator: may lack sufficient power supply or run time
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Obtain a generator for DPW mechanics garage which would be essential in maintaining operations in an emergency
<b>Action/Project Category</b>	Structure and Infrastructure
<b>Goals Met</b>	1, 2, 6
<b>Critical Facility (Y/N)</b>	Yes
<b>Benefits (losses avoided)</b>	Prevents loss of function
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Local OEM
<b>Local Planning Mechanism</b>	CoOEM, County Government
<b>Potential Funding Sources</b>	Grants, Municipal Loan
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 3/20/2018 Progress on Action/Project: No Progress



**Action Number:** LT-8

**Mitigation Action/Initiative:** Obtain Generator DPW Mechanic Garage

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Ensures operations in all circumstances
<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>	1	
<b>Social</b>	1	
<b>Administrative</b>	1	
<b>Multi-Hazard</b>	1	
<b>Timeline</b>	1	
<b>Agency Champion</b>	1	Provides critical power during outages and allows operations without interruption
<b>Other Community Objectives</b>	1	
<b>Total</b>	14	
<b>Priority (High/Med/Low)</b>	High	



Action Number: LT-9  
 Mitigation Action/Initiative: Weather Station with Public Access

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Weather prediction and monitoring
<b>Specific problem being mitigated:</b>	Anticipating weather and monitoring with real time notification
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. No action
	2. Establish relationship with NWS Mt. Holly Station – may not provide necessary localized conditions
	3. Utilize national weather data – may not provide necessary localized conditions
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Obtaining a weather station device to monitor weather
<b>Action/Project Category</b>	Education and Awareness Programs
<b>Goals Met</b>	1, 2, 3, 4, 5, 6
<b>Critical Facility (Y/N)</b>	No
<b>Benefits (losses avoided)</b>	Avoid potential costly weather-related events.
<b>Estimated Cost</b>	Low
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Local OEM
<b>Local Planning Mechanism</b>	Local Government
<b>Potential Funding Sources</b>	Grant, local funding
<b>Timeline for Completion</b>	Med
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 3/27/2018 Progress on Action/Project: in Progress of obtaining bids



**Action Number:** LT-9

**Mitigation Action/Initiative:** Weather Station with Public Access

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Provide real-time weather information to residents; information can be used to see if the township needs to issue evacuations
<b>Property Protection</b>	1	
<b>Cost-Effectiveness</b>	1	
<b>Technical</b>	1	
<b>Political</b>	0	
<b>Legal</b>	0	
<b>Fiscal</b>	0	
<b>Environmental</b>	1	
<b>Social</b>	1	
<b>Administrative</b>	0	
<b>Multi-Hazard</b>	1	All hazards
<b>Timeline</b>	0	
<b>Agency Champion</b>	1	
<b>Other Community Objectives</b>	1	
<b>Total</b>	9	
<b>Priority (High/Med/Low)</b>	Med	



**Action Number:** LT-10  
**Mitigation Action/Initiative:** Alert System to include external siren township wide.

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Audible warning device township wide.
<b>Specific problem being mitigated:</b>	Warning device for the entire township external audible (i.e. siren)
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. Local OEM</li> <li>2. Work with possible NJ or Federal entity</li> <li>3. Use internet-based notification system – may lose communication capabilities during an event</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Audible device for alert activation
<b>Action/Project Category</b>	NSP
<b>Goals Met</b>	1, 2, 5
<b>Critical Facility (Y/N)</b>	No
<b>Benefits (losses avoided)</b>	Prevent loss of life and provide early warning
<b>Estimated Cost</b>	Medium
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Local OEM, Emergency Services
<b>Local Planning Mechanism</b>	Local Gov
<b>Potential Funding Sources</b>	Grant, Local Funding
<b>Timeline for Completion</b>	Med
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date:3/27/2018 Progress on Action/Project: No Progress



**Action Number:** LT-10

**Mitigation Action/Initiative:** Alert System to include external siren township wide.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Provides a warning source to residents for all hazards that could impact the township
<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>	0	Need funding to complete or use municipal budget
<b>Environmental</b>	0	
<b>Social</b>	0	
<b>Administrative</b>	0	
<b>Multi-Hazard</b>	1	All hazards
<b>Timeline</b>	0	
<b>Agency Champion</b>	1	
<b>Other Community Objectives</b>	1	
<b>Total</b>	6	
<b>Priority (High/Med/Low)</b>	Med	



**Action Number:** LT-11  
**Mitigation Action/Initiative:** New Watercraft for Rescue

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Water rescue
<b>Specific problem being mitigated:</b>	Obtain a new boat for rescue service to utilize during water related rescues and debris mitigation
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. No action: Current problem continues.</li> <li>2. Form agreement with neighboring towns to use their boats: May not be available when needed</li> <li>3. Purchase inflatable boat: Boat will not have enough stability to perform debris management tasks</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Obtain a new water craft
<b>Action/Project Category</b>	NSP
<b>Goals Met</b>	1, 3
<b>Critical Facility (Y/N)</b>	No
<b>Benefits (losses avoided)</b>	Avoid loss of life
<b>Estimated Cost</b>	Medium
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Local OEM
<b>Local Planning Mechanism</b>	Local Gov
<b>Potential Funding Sources</b>	Grants, Government Surplus, Local Funding
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date:3/27/2018 Progress on Action/Project: On Going research



**Action Number:** LT-11

**Mitigation Action/Initiative:** Water Rescue Craft

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Increase response for water rescues and protect the life and safety of residents
<b>Property Protection</b>	0	
<b>Cost-Effectiveness</b>	0	
<b>Technical</b>	0	
<b>Political</b>	0	
<b>Legal</b>	0	
<b>Fiscal</b>	0	Need funding to purchase equipment
<b>Environmental</b>	0	
<b>Social</b>	0	
<b>Administrative</b>	0	
<b>Multi-Hazard</b>	0	
<b>Timeline</b>	1	Completed within 5 years
<b>Agency Champion</b>	1	
<b>Other Community Objectives</b>	1	
<b>Total</b>	4	
<b>Priority (High/Med/Low)</b>	Low	



**Action Number:** LT-12  
**Mitigation Action/Initiative:** Buttonwood Preschool and Drainage Project

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Poor drainage causing minor flooding and poor conditions
<b>Specific problem being mitigated:</b>	Drainage area and mitigation of water from storm
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. Relocation preschool – no feasible location
	3. Construct flood barriers – cost-prohibitive for the site
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Mitigate a water issue which causes flooding in preschool area.
<b>Action/Project Category</b>	Structure and Infrastructure
<b>Goals Met</b>	1, 2, 6
<b>Critical Facility</b>	No
<b>Benefits (losses avoided)</b>	Reduce repetitive losses in area.
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Local Gov
<b>Local Planning Mechanism</b>	Local Gov
<b>Potential Funding Sources</b>	Local
<b>Timeline for Completion</b>	Short
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 3/27/2018 Progress on Action/Project: underway



**Action Number:** LT-12

**Mitigation Action/Initiative:** Buttonwood Preschool and Drainage Project

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Protect students, employees, and parents from impacts flooding has in this area
<b>Property Protection</b>	1	Reduce or eliminate flooding in and around the preschool
<b>Cost-Effectiveness</b>	1	
<b>Technical</b>	1	
<b>Political</b>	1	
<b>Legal</b>	1	
<b>Fiscal</b>	0	Need funding to complete project
<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>	12	
<b>Priority (High/Med/Low)</b>	High	



**Action Number:** LT-13

**Mitigation Action Name:**

Coordinate with the facility managers at Lumberton Fire Co #1 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, 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:**

LT-13

Coordinate with the facility managers at Lumberton Fire Co #1 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>	<b>7</b>	
<b>Priority (H/M/L)</b>	<b>Medium</b>	



**Action Number:**

LT-14

**Mitigation Action Name:**

Coordinate with the facility managers at Lumberton Fire Co Mount Holly Helipad (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, 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:**

LT-14

Coordinate with the facility managers at Lumberton Fire Co Mount Holly Helipad (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:**

LT-16

**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:

- Creek Road
- Main Street
- Church Street
- Edward Ave
- Bridge Road
- Ed Browns Meadow Lane
- Willow Street
- Point Street
- 2<sup>nd</sup> Street
- Landing Street

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

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 Township 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:**

LT-16

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:

- Creek Road
- Main Street
- Church Street
- Edward Ave
- Bridge Road
- Ed Browns Meadow Lane
- Willow Street
- Point Street
- 2<sup>nd</sup> Street
- Landing Street

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

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Provide residents ways to protect their home from future flood events and damages
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	1	The township has the administrative capability to complete this project
Multi-Hazard	0	Flood
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	8	
<b>Priority (H/M/L)</b>	High	