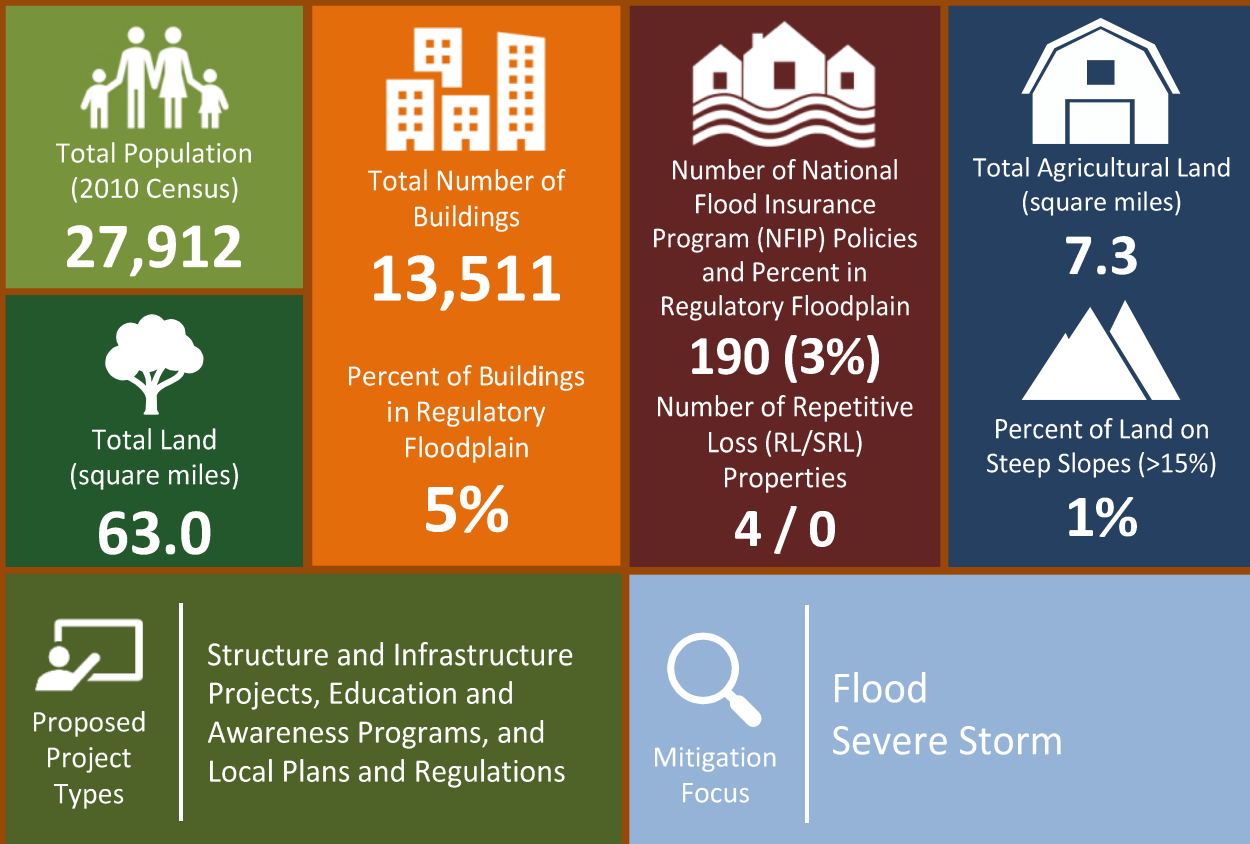
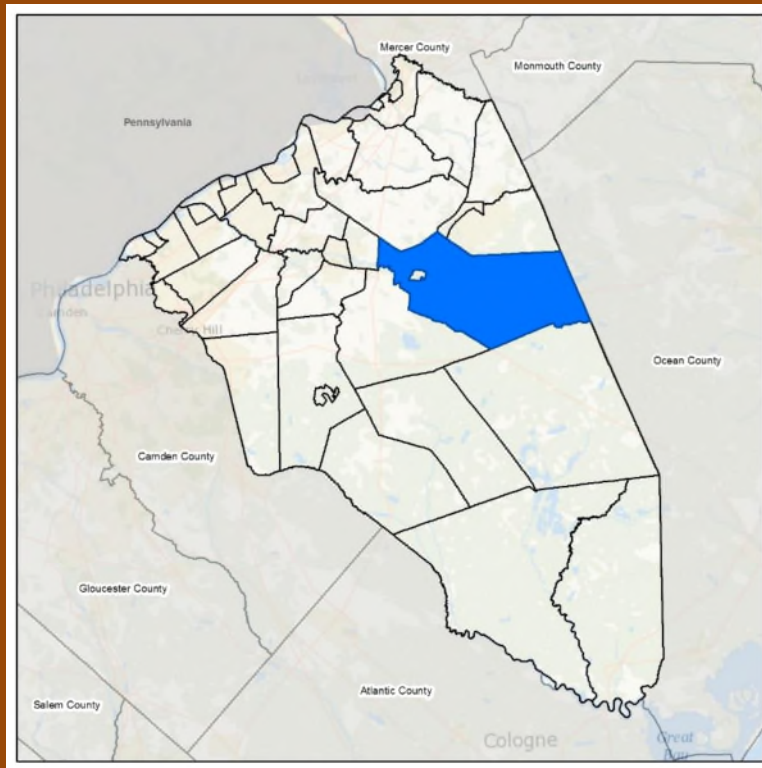




MUNICIPAL ANNEX | Pemberton Township





9.30 Township of Pemberton

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

9.30.1 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 |
|--|--|
| Craig Augustoni, OEM Coordinator 500 Pemberton-Browns Mills Road, Pemberton NJ 08068 609-894-3382 Firecheif@pemberton-twp.com | Dennis Gonzalez, Business Administrator 500 Pemberton-Browns Mills Road, Pemberton NJ 08068 609-894-3304 dmull@pemberton.comcastbiz.net |

9.30.2 Municipal Profile

Located adjacent to the New Jersey Pine Barrens, the Township developed as a mill town. During the mid-19th century, the Browns Mills section of the Township served as a luxury retreat for city dwellers who were attracted to the clean water of its streams, hailed for its medicinal purposes, and its healthy forest air. At this time, residents began growing cranberries, a crop which prospered in marshy land near the Township's creek and streams. Nineteenth century Township residents also took part in the production of charcoal, iron and glass. The agricultural future of the Township was changed in the early 20th century when Elizabeth C. White of Whitesbog began field experiments which led to the area's first cultivation of wild berries.

Pemberton Township is governed under the Mayor-Council form of government established under the Faulkner Act. Under this form, the mayor is the chief executive of the municipality and has the enforcement responsibility for all ordinances, charter provisions and prepares the budget of the municipality. The mayor, with the advice and consent of the council, appoints and removes department heads, including a business administrator. The mayor has the right to speak at council meeting but has no vote and does not need to attend.

The council is the legislative body of the municipality. The membership is five, seven or nine members, who are elected either at-large or from wards. The council is generally limited to legislative functions but has investigative power and may remove municipal officers for cause. The council can reduce items in the mayor’s budget by a majority vote, but it needs a two-thirds majority to increase any item in the budget.¹

Pemberton Township, with approximately 64 square miles, is one of the largest of Burlington County’s 40 municipalities. Within the Township today are numerous smaller communities, among them Birmingham, Browns Mills, Magnolia, New Lisbon and Whitesbog.

The Township is located on the eastern portion of Burlington County. It completely surrounds the Borough of Pemberton and is bordered by Woodland to the south, New Hanover to the north-east, Springfield to the north, Eastampton to the north-west, and Southampton to the west and south-west. In addition, Pemberton Township borders the Ocean County municipalities of Manchester Township and Plumsted. According to the 2010 Census, the community's population was 27,912.

¹ http://www.njslom.org/magart0307_p14.html





Pemberton 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. Pemberton Township has lands designated as preservation area district, forest area, agricultural production area, rural development area, regional growth area, military and federal installment area, Pinelands Village, and special agricultural production area.

The Township participates in the CWPP Community Wildfire Protection Program. They received a \$5000 grant to conduct public outreach. The Township is currently reviewing the Firewise requirements and is in process of making application. (Make this a new action).

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

Table 9.30-1. 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 |
|--|-------------------------|-------------------------|-------------------------------------|---|---|
| Recent Development from 2013 to present | | | | | |
| Deborah Hospital | Comm. | 1 | 200 Trenton Rd 529/1 | Wildfire: Extreme | Medical Facility Under Construction |
| Danitom | Resd. | 53 | Bobolink Blvd. Numerous | None | Homes/ Under Review |
| Known or Anticipated Development in the Next Five (5) Years | | | | | |
| Stores | Comm. | Unknown | Juliustown Rd 553/34,37 | None | Under Planning |
| Warehouse | Comm. | 1 | 200 South Pemberton Rd 397/1 | None | Under Planning |
| Dollar General | Comm. | 1 | 354 Lakehurst Rd 854/74.01 | Flood: 1% Event: A-Zone; Wildfire: Extreme | Store/ Planning Review |
| Fire Station & Comm. Center | | 1 | 703 New York Rd 732/10 | None | Fire Station & Community Center/Under Construction |
| Pemberton Pines | Resd. | 550 | Pole Bridge Rd Numerous | None | Residential/ Under Planning |

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

9.30.3 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 9.30-2. 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 | No | Downed trees and wires, power outages, road closures |
| June 23, 2015 | Severe Storm (DR-4231) | Yes | Downed trees and wires, power outages, road closures |
| January 22-24, 2016 | Severe Winter Storm (DR-4264) | Yes | Downed trees and wires, power outages, road closures |
| June 22, 2016 | Wildfire Event | No | Major Wildfire occurred 215 acres |
| June 24, 2017 | Micro Burst | No | Weather event, power loss |

Notes:

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

9.30.4 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 Pemberton. 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 Pemberton.

Table 9.30-3. Hazard Risk/Vulnerability Risk Ranking

| Hazard type | Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c} | Probability of Occurrence | Risk Ranking Score (Probability x Impact) | Hazard Ranking ^b |
|-----------------|--|---------------------------|---|-----------------------------|
| Coastal Erosion | RCV Exposed to CE Hazard Area: \$0 | Rare | 6 | Low |
| Drought | Damage estimate not available. | Frequent | 30 | Medium |
| Earthquake | 100-Year GBS: \$0 500-Year GBS: \$5,550,565 2,500-Year GBS: \$81,983,763 | Occasional | 28 | Medium |
| Flood | 1% Annual Chance: \$792,660,953 | Frequent | 18 | Medium |
| Landslide | RCV Exposed to Landslide Hazard Area: \$0 | Rare | 6 | Low |
| Severe Storm | 100-year MRP: \$5,347,002 500-year MRP: \$18,058,353 Annualized: \$452,382 | Frequent | 48 | High |





| Hazard type | Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c} | Probability of Occurrence | Risk Ranking Score (Probability x Impact) | Hazard Ranking ^b |
|-----------------------|--|---------------------------|---|-----------------------------|
| Severe Winter Weather | 1% GBS: \$57,720,218 5% GBS: \$288,601,092 | Frequent | 51 | High |
| Wildfire | Estimated Value in the Extreme, Very High, and High Hazard Areas: \$655,542,382 | Occasional | 22 | Medium |

Notes:

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

National Flood Insurance Program (NFIP) Summary

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

Table 9.30-4. 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 Pemberton | 202 | 98 | \$900,851.07 | 4 | 0 | 6 |

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 9.30-5. 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 |
| Browns Mills Mirror Lake Dam | Tier Facility | X | X | - | - |
| Buttonwood Hospital | Medical | X | X | 0 | 0 |





| Name | Type | Exposure | | Potential Loss from 1% Flood Event | |
|-----------------------|-------------------|----------|------------|------------------------------------|------------------------|
| | | 1% Event | 0.2% Event | Percent Structure Damage | Percent Content Damage |
| Hanover Furnace | Historic Site | X | X | 10.6 | 64 |
| Lanxessc Sybron | Chemical | X | X | - | - |
| Sybron Chemical | Business/Industry | X | X | 0 | 0 |
| Sybron Chemicals Inc. | Tier Facility | 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:

- Rancocas Creek North Branch (*Township of Pemberton*) – primary flooding source due to torrential rains during summer and autumn months.

9.30.5 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 Pemberton.

Table 9.30-7. Planning and Regulatory Tools

| Tool / Program (code, ordinance, plan) | Do you have this? (Yes/No) If Yes, date of adoption or update | Authority (local, county, state, federal) | Dept. /Agency Responsible | Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.) |
|--|---|---|---------------------------|---|
| Planning Capability | | | | |
| Master Plan | Yes | Local | Community Development | |
| Capital Improvements Plan | Yes | Local | Administration | |
| Floodplain Management / Basin Plan | Yes 3/87 | Local | Community Development | Chapter 110 Township Code |
| Stormwater Management Plan | Yes 6/83 | Local | Community Development | Chapter 159 Township Code |
| Open Space Plan | Yes 7/09 | Local | Administration | |
| Stream Corridor Management Plan | 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.) |
|---|---|--|------------------------------|--|
| Watershed Management or Protection Plan | Yes 8/82 | Local | Community Development | Chapter 190 (190-50) |
| Economic Development Plan | Yes 7/09 | Local | Administration | |
| Comprehensive Emergency Management Plan | Yes 2015 | Local | OEM | Pemberton Township EOP |
| Emergency Operation Plan | Yes 2015 | Local | OEM | Pemberton Township EOP |
| Post-Disaster Recovery Plan | Yes 2015 | Local | OEM | Pemberton Township EOP |
| Transportation Plan | Yes | Local | Community Development | See Master Plan |
| Strategic Recovery Planning Report | No | | | |
| Other Plans: | Yes 3/95 | Local | Community Development | Pemberton Township Code 45 |
| Regulatory Capability | | | | |
| Building Code | Yes | State & Local | Community Development | State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) |
| Zoning Ordinance | Yes 2013 | Local | Community Development | Township Code 190 |
| Subdivision Ordinance | Yes | Local | Community Development | Chapter 159 of Township Code |
| NFIP Flood Damage Prevention Ordinance | Yes | Federal, State, Local | Community Development | Chapter 110 Township Code |
| NFIP: Cumulative Substantial Damages | No | | | |
| NFIP: Freeboard | Yes | State, Local | Community Development | Chapter 110 Township Code |
| Growth Management Ordinances | Yes | State | Community Development | Township Code 190-50 |
| Site Plan Review Requirements | Yes | Local | Community Development | Township Code 190 (190-45) |
| Stormwater Management Ordinance | Yes 6/83 | Local | Community Development | Township Code 185 |
| Municipal Separate Storm Sewer System (MS4) | Yes | Local | DPW | |
| Natural Hazard Ordinance | No | | | |
| Post-Disaster Recovery Ordinance | No | | | |
| Real Estate Disclosure Requirement | No | | | |
| Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope]) | No | | | |

Administrative and Technical Capability

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





Table 9.30-8. Administrative and Technical Capabilities

| Resources | Is this in place? (Yes or No) | Department/ Agency/Position |
|---|----------------------------------|-----------------------------|
| Administrative Capability | | |
| Planning Board | Yes | Community Development |
| Mitigation Planning Committee | No | |
| Environmental Board/Commission | Yes | Community Development |
| Open Space Board/Committee | No | |
| Economic Development Commission/Committee | No | |
| Maintenance programs to reduce risk | Yes | Community Development |
| Mutual aid agreements | Yes | Administration |
| Technical/Staffing Capability | | |
| Planner(s) or engineer(s) with knowledge of land development and land management practices | Yes | Community Development |
| Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure | Yes | Community Development |
| Planners or engineers with an understanding of natural hazards | Yes | Community Development |
| NFIP Floodplain Administrator (FPA) | Yes | Community Development |
| Surveyor(s) | Yes | Community Development |
| Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications | Yes | Community Development |
| Scientist familiar with natural hazards | No | |
| Emergency Manager | Yes | OEM/Administration |
| Grant writer(s) | Yes | Community Development |
| Staff with expertise or training in benefit/cost analysis | Yes | Engineering/Planning |
| Professionals trained in conducting damage assessments | Yes | OEM/Construction |

Fiscal Capability

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

Table 9.30-9. Fiscal Capabilities

| Financial Resources | Accessible or Eligible to Use (Yes/No) |
|---|---|
| Community development Block Grants (CDBG, CDBG-DR) | Yes |
| Capital improvements project funding | Yes |
| Authority to levy taxes for specific purposes | Yes |
| User fees for water, sewer, gas or electric service | Yes |
| Impact fees for homebuyers or developers of new development/homes | Yes |
| Stormwater utility fee | No |
| Incur debt through general obligation bonds | Yes |
| Incur debt through special tax bonds | Yes |





| Financial Resources | Accessible or Eligible to Use (Yes/No) |
|--|--|
| Incur debt through private activity bonds | No |
| Withhold public expenditures in hazard-prone areas | Yes |
| Other federal or state Funding Programs | Yes |
| Open Space Acquisition funding programs | Yes |
| Other | No |

Community Classifications

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

Table 9.30-10. 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) | NP | | |
| Public Protection (ISO Fire Protection Classes 1 to 10) | Yes | 05/5Y | June 2014 |
| Storm Ready Certification | No | | |
| Firewise Communities classification | No | | |
| Natural disaster/safety programs in/for schools | Yes | | |
| 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 | 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. 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 Pemberton’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.30-11. 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 - budgetary | | |
| 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)

David Benedetti, Director Community Development

Flood Vulnerability Summary

The Township of Pemberton does not maintain lists or inventories of properties that have been damaged by flooding. During Hurricane Sandy and other recent events, there was no structural damage within the Township. The FPA indicated that there is one resident who is interested in mitigation of their property but the project is not completed. There is currently no funding source for properties to be mitigated.

Resources

The FPA assumes sole responsibilities of floodplain administration for the Township of Pemberton. NFIP administration services and functions provided to residents of Pemberton include permit review, inspections, damage assessment, record-keeping, and GIS. At this time, there are no education or outreach programs to the community regarding flood hazards/risk or flood risk reduction. The FPA stated that there are currently no barriers to running an effective floodplain management program and that he feels 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

The Township is currently in good standing with the NFIP and the date of the most recent compliance visit was in 2016.

Regulatory

The Township of Pemberton’s floodplain ordinance exceeds the minimum set by FEMA and the State of New Jersey. There are additional ordinances that support floodplain management within the Township and the planning or zoning board considers efforts to reduce flood risk when reviewing variances such as height





restrictions. The township is currently not in the CRS program and are not considering joining or attending a seminar if offered.

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

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. The Township of Pemberton is Tier A municipality.

Waste and Disposal to Sewer Systems: Chapter 185 of the municipal code discusses stormwater management. The purpose of this chapter is to prohibit the spilling, dumping, or disposal of materials other than stormwater to the municipal separate storm sewer system (MS4) operated by the Township of Pemberton, so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply. This article also requires the retrofitting of existing storm drain inlets which are in direct contact with repaving, repairing, reconstruction, or resurfacing or alterations of facilities on private property, to prevent the discharge of solids and floatables (such as plastic bottles, cans, food wrappers and other litter) to the municipal separate storm sewer system(s) operated by the Township of Pemberton so as 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 110 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 second 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.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities.
- Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters.
- Controlling filling, grading, dredging and other development which may increase flood damage.
- Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Operational and Administration

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

- Clean Communities/Recycling
- Environmental Commission
- MUA
- Planning Board
- Zoning Board
- Senior Citizens Council
- Veterans Advisory Board
- Municipal Alliance Committee

Funding

The Township of Pemberton has mutual aid agreements with Administration. The Township grant writer is located within the Community Development Department. 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 developments/homes, the ability to incur debt through general obligation bonds, the ability to incur debt through special tax bonds, the ability to withhold public expenditures in hazard prone areas, other Federal or State funding programs, and open space acquisition funding programs.



Education and Outreach

The Township of Pemberton has a website where one can access community links, departments, information about the government, minutes/ordinances, and Township financials. Visitors are also able to see the Township calendar and Township tweets and facebook posts. The Township Emergency Management page has contact information for the Emergency Management Coordinator as well as information and links about hurricane and storm preparedness and FEMA. There is also instructions on how to register for New Jersey’s Special Needs Registry.

9.30.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2013 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.

DRAFT



Table 9.30-12. 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. |
|---------------|---|--|---|---|--|
| PT-1 | Upgrade sidewalk area on Bayberry Dam | Lead: Pemberton Twp. Support: | Complete | Complete | 1. Discontinue 2. Complete |
| PT-2 | Upgrade Dam and Dam #3 on Choctaw Drive in Country Lakes | Lead: Pemberton Twp. Support: | Complete | Complete | 1. Discontinue 2. Complete |
| PT-3 | Upgrade Dam #2 and retaining wall at Split Rock Road in Country Lakes | Lead: Pemberton Twp. Support: | Complete | Complete | 1. Discontinue 2. Complete |
| PT-4 | Bayberry Street Dam, Browns Mill – Construct overtopping protection | Lead: Twp. OEM Support: Administration, Twp. DPW, Twp. Engineer | Complete | Complete | 1. Discontinue 2. Complete |
| PT-5 | Wissahickon Road and Split Rock Road, Country Lakes – remove existing spillway structure and install an ogee with new wing walls to regulate the flow to the downstream stream, install overtopping protection along both the upstream and downstream embankments and stabilize the vegetative area surrounding the existing dam. | Lead: Twp. OEM Support: Administration, Twp. DPW, Twp. Engineer | Complete | Complete | 1. Discontinue 2. Complete |
| PT-6 | Choctaw Drive, Country Lakes – Remove the existing spillway structure and install box spillway along with new wing walls to regulate the flow to the downstream lake, install overtopping protection along both the upstream and downstream embankments and | Lead: Twp. OEM Support: Administration, Twp. DPW, Twp. Engineer | Complete | Complete | 1. Discontinue 2. Complete |





| Action Number | 2013 Mitigation Action | Responsible Party | Status (In progress, No progress, Complete) | Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)? | Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why. |
|---------------|--|---|--|---|--|
| | complete roadway improvements. | | | | |
| PT-7 | Evaluate benefits of participating in CRS program | Twp. Committee, Planning, OEM, Floodplain Adm. | No Progress | Did not pursue action | 1. Include in 2019 HMP 2. Determine benefit of membership. |
| PT-8 | 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 | The Township Emergency Management page has contact information for the Emergency Management Coordinator as well as information and links about hurricane and storm preparedness and FEMA. | 1. Discontinue 2. Complete |
| PT-9 | Improve municipal communications systems to include information sharing with county and surrounding municipalities. | OEM with support from County, NJOEM and FEMA | Complete | County radio system update is under way through county / local budget. | 1. Discontinue 2. County leading effort |
| PT-10 | Obtain and install backup power sources at all critical facilities to include shelters. | Municipality engineering, OEM with support from County, NJOEM and FEMA | No Progress | Budget constraints | 1. Include in 2019 HMP 2. Secure funding |
| PT-11 | Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations | Municipal Government, OEM with support from County, NJOEM, FEMA and surrounding communities | Complete | Complete | 1. Discontinue 2. Ongoing capability |
| PT-12 | Continue to support the implementation, monitoring, maintenance, and updating of | Municipal Government, OEM with | Complete | Complete | 1. Discontinue 2. Participating in plan update |





| 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. |
|---------------|---|---|---|---|--|
| | this Plan through participating in the 5-year Plan Update | support from Planning Partners, County Planning, NJOEM, FEMA | | | |
| PT-13 | Continue to promote the participation of Floodplain Administrator within the planning process and other related activities. | Municipal Government with support from County, NJOEM and FEMA | Complete | Complete | 1. Discontinue 2. Ongoing capability |
| PT-14 | Enhance resilience to severe storms by joining the NOAA "Storm Ready" program. | OEM with support from County, NJOEM and FEMA | No Progress | Did not pursue action | 1. Include in 2019 HMP 2. Determine benefit of membership. |
| PT-15 | Provide public education and outreach on proper installation and/or use of backup power | Municipal Clerk, OEM and government | In Progress | Working to develop outreach materials | 1. Include in 2019 HMP 2. Complete action |
| PT-16 | Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies. | Municipal DPW | No Progress | Action was not pursued | 1. Include in 2019 HMP 2. Pursue action |
| PT-17 | Evaluate benefits of participating in the Firewise Program | Municipal OEM | In Progress | Working to identify benefits | 1. Include in 2019 HMP 2. Complete action |





Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Township of Pemberton 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 9.30-13 summarizes the comprehensive-range of specific mitigation initiatives the Township of Pemberton 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 9.30-14 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.30-13. 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 |
|------------------------|---|------------------------------|-----------------------------------|--|--|--------------------|----------------|---|-------------------|----------|---------------------|--------------|
| PT-1 (Former PT-7) | Evaluate benefits of participating in CRS program | No | All | All | Twp. Committee, Planning, OEM, Floodplain Adm. | Medium | Low | Municipal Government, OEM and Floodplain Admin. | Short Term | Medium | LPR | PR |
| PT-2 (Former PT-10) | Obtain and install backup power sources at all critical facilities to include shelters. | Yes | All Hazards | 1, 2, 6 | Municipality engineering, OEM with support from County, NJOEM and FEMA | Medium | Medium | Municipal Budget | Short Term | Medium | SIP | PP |
| PT-3 (Former PT-14) | Enhance resilience to severe storms by joining the NOAA “Storm Ready” program. | No | Severe Storm | 1-1 1-5 3-1 | OEM with support from County, NJOEM and FEMA | Medium | Low | Municipal Budget | Short Term | Medium | EAP | PI |
| PT-4 (Former PT-15) | Provide public education and outreach on proper installation and/or use of backup power | No | Severe Storm | 1-5 5-1 5-3 | Municipal Clerk, OEM and government | Medium | Low | Municipal Budget | Short Term | High | EAP | PI |
| PT-5 (Former PT-16) | Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies. | No | Severe Storm, Severe Winter Storm | 1-5 4-1 | Municipal DPW | Medium | Low/Medium | Municipal Budget | Short Term | Medium | NRP | PR |
| PT-6 (Former PT-17) | Evaluate benefits of participating in the Firewise Program | No | Wildfire | 1-1 1-5 2-1 3-1 4-1 5-1 | Municipal OEM | Medium | Low | Municipal Government, OEM | Short Term | Medium | LPR | PR |
| PT-7 | Coordinate with the facility managers at Buttonwood Hospital in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or | 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 9.30-13. 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 |
|------------|---|------------------------------|---------------------|--------------------------|---------------------------------------|--------------------|----------------|------------------------------|--|----------|---------------------|--------------|
| | 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. | | | | | | | | | | | |
| PT-8 | Coordinate with the facility managers at Hanover Furnace 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 |
| PT-9 | Coordinate with the facility managers at Sybron Chemicals 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 |
| PT-10 | During future updates of the Master Plan, Capital Improvements Plan, Open Space Plan, Economic Development Plan, or other plans, work to integrate hazard mitigation | No | All Hazards | All | Municipality | High | Low | Municipal Budget | Short Term, Depending on update schedule | High | LPR | PR, PI |





Table 9.30-13. 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 |
|------------|--|------------------------------|---------------------|--------------------------|---------------------------------------|--------------------|----------------|---------------------------------|----------|----------|---------------------|--------------|
| | 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. | | | | | | | | | | | |
| PT-11 | <p>The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:</p> <ul style="list-style-type: none"> • Creek Lane • Lafayette Ave • Duck Island Road <p>Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.</p> | No | Flood | 1, 2 | Municipality with support from County | High | High | Grant funding; Municipal budget | Short | High | SIP | PP |

Notes:

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

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

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works
 FEMA Federal Emergency Management Agency
 FPA Floodplain Administrator
 HMA Hazard Mitigation Assistance

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)

Timeline:

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





| | | | |
|------|----------------------------------|-----|--|
| N/A | Not applicable | SRL | Severe Repetitive Loss Grant Program (discontinued in 2015) |
| NFIP | National Flood Insurance Program | | |
| OEM | Office of Emergency Management | | |

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 9.30-14. 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 |
|----------------------------------|---|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-----------------|-------|---------------------|
| PT-1 (Former PT-7) | Evaluate benefits of participating in CRS program | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 | Medium |
| PT-2 (Former PT-10) | Obtain and install backup power sources at all critical facilities to include shelters. | 1 | 1 | 1 | 1 | 1 | 1 | -1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 | Medium |
| PT-3 (Former PT-14) | Enhance resilience to severe storms by joining the NOAA "Storm Ready" program. | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 8 | Medium |
| PT-4 (Former PT-15) | Provide public education and outreach on proper installation and/or use of backup power | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 9 | High |
| PT-5 (Former PT-16) | Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies. | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 9 | Medium |
| PT-6 (Former PT-17) | Evaluate benefits of participating in the Firewise Program | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 8 | Medium |
| PT-7 | Coordinate with the facility managers at Buttonwood Hospital in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation | 0 | 1 | 1 | 1 | 1 | 1 | -1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 7 | Medium |





Table 9.30-14. 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 |
|----------------------------------|---|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-----------------|-------|---------------------|
| | 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. | | | | | | | | | | | | | | | | |
| PT-8 | Coordinate with the facility managers at Hanover Furnace 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 |
| PT-9 | Coordinate with the facility managers at Sybron Chemicals in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation | 0 | 1 | 1 | 1 | 1 | 1 | -1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 7 | Medium |





Table 9.30-14. 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 |
|----------------------------------|---|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-----------------|-------|---------------------|
| | 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. | | | | | | | | | | | | | | | | |
| PT-10 | During future updates of the Master Plan, Capital Improvements Plan, Open Space Plan, Economic Development 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. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 10 | High |
| PT-11 | The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive | 1 | 1 | 0 | 1 | 1 | 1 | -1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 8 | High |





Table 9.30-14. 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 |
|----------------------------------|--|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-----------------|-------|---------------------|
| | Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include: <ul style="list-style-type: none"> • Creek Lane • Lafayette Ave • Duck Island 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. | | | | | | | | | | | | | | | | |

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





9.30.7 Future Needs to Better Understand Risk/Vulnerability

None at this time.

9.30.8 Hazard Area Extent and Location

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

9.30.9 Additional Comments

None at this time.

DRAFT



Figure 9.30-1. Township of Pemberton Hazard Area Extent and Location Map 1

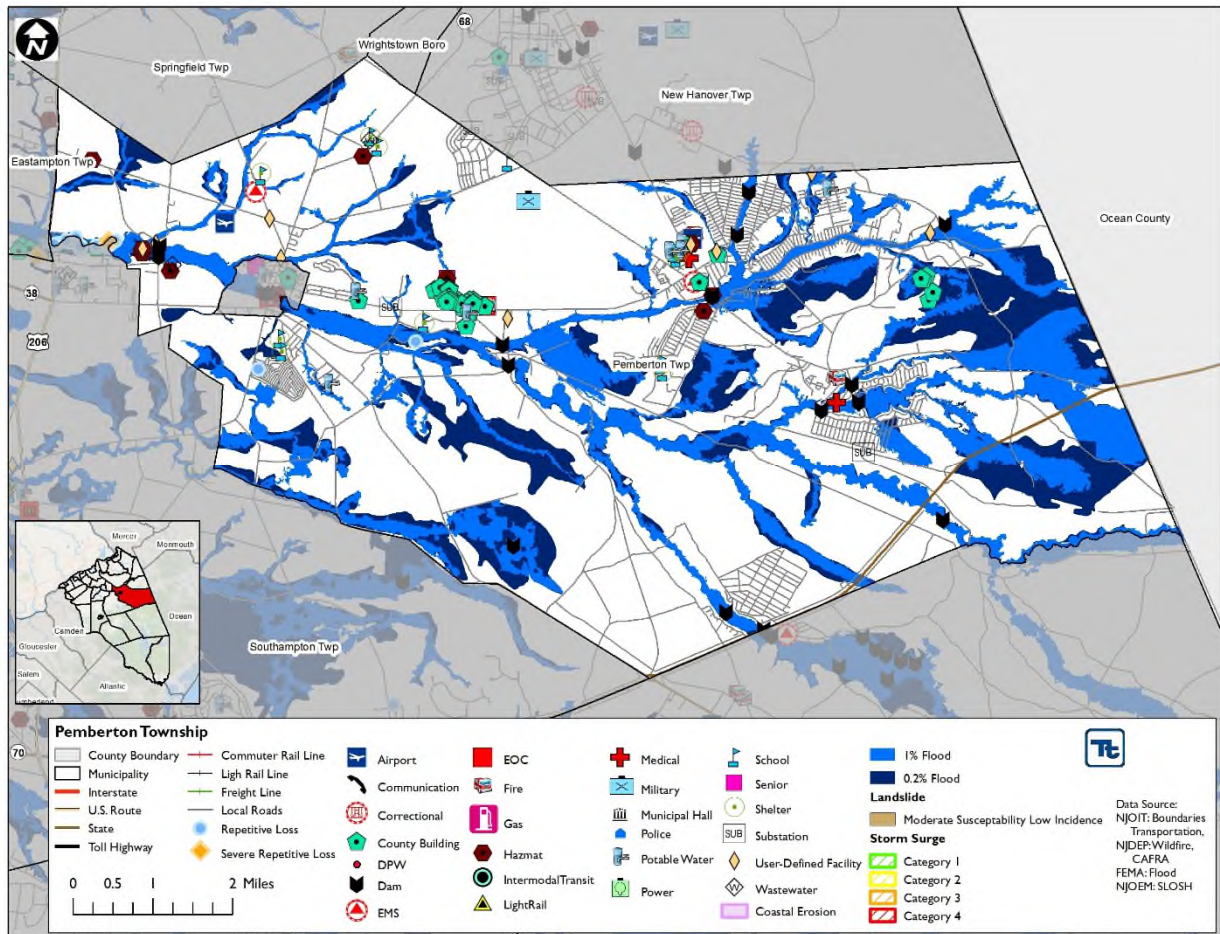
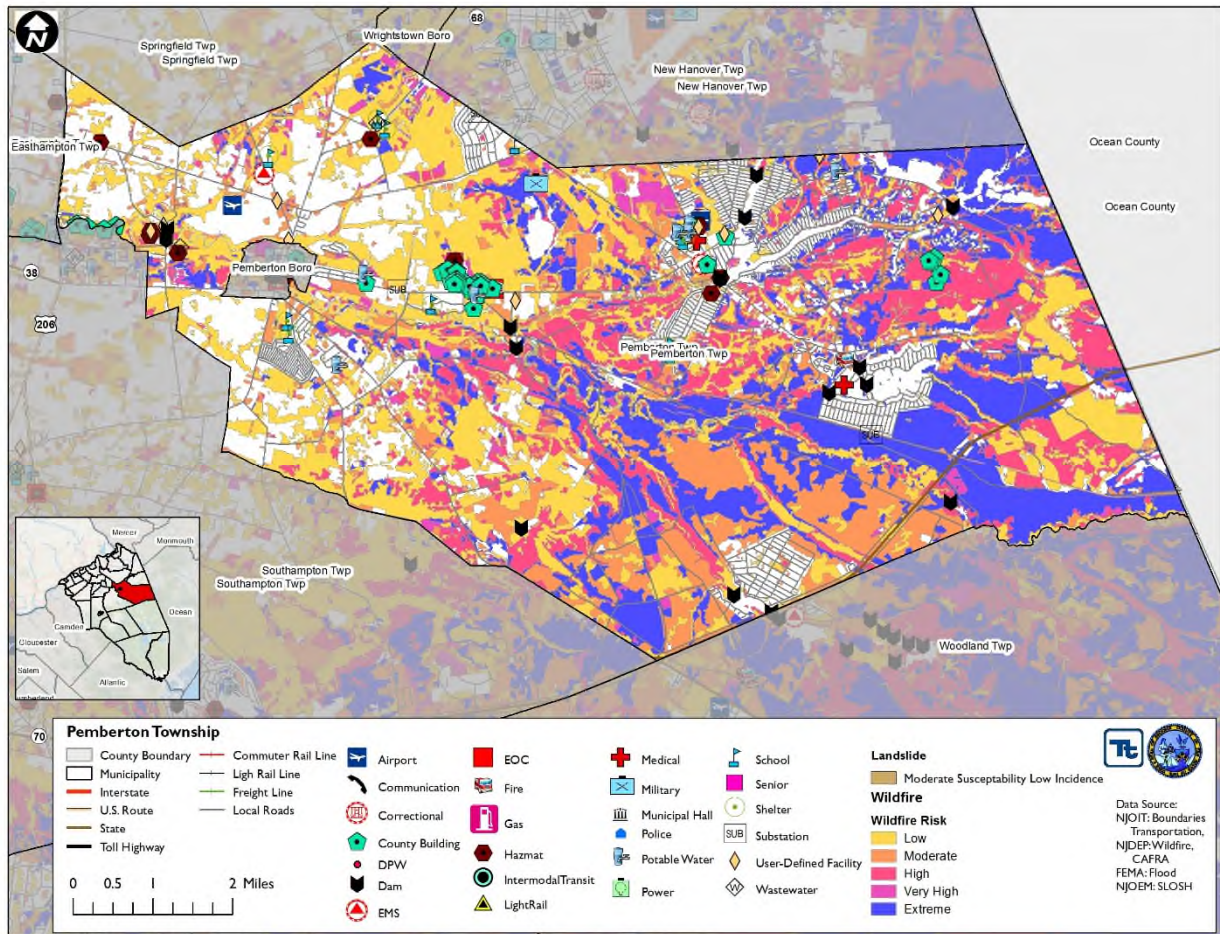




Figure 9.30-2. Township of Pemberton Hazard Area Extent and Location Map 2





Action Number:

PT-2 (Former PT-10)

Mitigation Action Name:

Obtain and install backup power sources at all critical facilities to include shelters.

| Assessing the Risk | |
|--|---|
| Hazard(s) addressed: | All Hazards |
| Specific problem being mitigated: | Backup power to essential facilities is critical during an emergency event |
| Evaluation of Potential Actions/Projects | |
| Actions/Projects Considered (name of project and reason for not selecting): | No Action - current problem continues |
| Action/Project Intended for Implementation | |
| Description of Selected Action/Project | Installation of generators and backup power required to ensure the building's ability to remain functional during an event. |
| Mitigation Action Type | SIP |
| Goals Met | 1, 2, 6 |
| Critical Facility (Y/N) | Yes |
| Benefits (losses avoided) | Medium |
| Estimated Cost | Medium |
| Priority* | Medium |
| Plan for Implementation | |
| Responsible Organization | Municipality engineering, OEM with support from County, NJOEM and FEMA |
| Local Planning Mechanism | PP |
| Potential Funding Sources | Municipal Budget |
| Timeline for Completion | Short Term |
| Reporting on Progress | |
| Date of Status Report/ Report of Progress | Date: 1/31/18 Status: Budget constraints |



Action Number:

PT-2 (Former PT-10)

Mitigation Action Name:

Obtain and install backup power sources at all critical facilities to include shelters.

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



Action Number:

PT-7

Mitigation Action Name:

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

| Assessing the Risk | |
|--|---|
| Hazard(s) addressed: | Flood, Severe Storm |
| Specific problem being mitigated: | Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. |
| Evaluation of Potential Actions/Projects | |
| Actions/Projects Considered (name of project and reason for not selecting): | No Action - current problem continues |
| Action/Project Intended for Implementation | |
| Description of Selected Action/Project | Mitigation of critical facilities. |
| Mitigation Action Type | SIP |
| Goals Met | 1, 2, 6 |
| Critical Facility (Y/N) | Yes |
| Benefits (losses avoided) | High |
| Estimated Cost | High |
| Priority* | Medium |
| Plan for Implementation | |
| Responsible Organization | Municipality with support from County |
| Local Planning Mechanism | SP, PP |
| Potential Funding Sources | HMA Grants, Municipal Budget |
| Timeline for Completion | Short Term, DOF |
| Reporting on Progress | |
| Date of Status Report/ Report of Progress | Date: 5/31/18 Status: New Action |



Action Number:
Mitigation Action Name:

PT-7

Coordinate with the facility managers at Buttonwood Hospital 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 | |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | |
| Fiscal | -1 | |
| Environmental | 0 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 0 | |
| Timeline | 0 | |
| Agency Champion | 1 | |
| Other Community Objectives | 0 | |
| Total | 7 | |
| Priority (H/M/L) | Medium | |



Action Number:

PT-8

Mitigation Action Name:

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

| Assessing the Risk | |
|--|---|
| Hazard(s) addressed: | Flood, Severe Storm |
| Specific problem being mitigated: | Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. |
| Evaluation of Potential Actions/Projects | |
| Actions/Projects Considered (name of project and reason for not selecting): | No Action - current problem continues |
| Action/Project Intended for Implementation | |
| Description of Selected Action/Project | Mitigation of critical facilities. |
| Mitigation Action Type | SIP |
| Goals Met | 1, 2, 6 |
| Critical Facility (Y/N) | Yes |
| Benefits (losses avoided) | High |
| Estimated Cost | High |
| Priority* | Medium |
| Plan for Implementation | |
| Responsible Organization | Municipality with support from County |
| Local Planning Mechanism | SP, PP |
| Potential Funding Sources | HMA Grants, Municipal Budget |
| Timeline for Completion | Short Term, DOF |
| Reporting on Progress | |
| Date of Status Report/ Report of Progress | Date: 5/31/18 Status: New Action |



Action Number:
Mitigation Action Name:

PT-8

Coordinate with the facility managers at Hanover Furnace 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 | |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | |
| Fiscal | -1 | |
| Environmental | 0 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 0 | |
| Timeline | 0 | |
| Agency Champion | 1 | |
| Other Community Objectives | 0 | |
| Total | 7 | |
| Priority (H/M/L) | Medium | |



Action Number:

PT-9

Mitigation Action Name:

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

| Assessing the Risk | |
|--|---|
| Hazard(s) addressed: | Flood, Severe Storm |
| Specific problem being mitigated: | Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. |
| Evaluation of Potential Actions/Projects | |
| Actions/Projects Considered (name of project and reason for not selecting): | No Action - current problem continues |
| Action/Project Intended for Implementation | |
| Description of Selected Action/Project | Mitigation of critical facilities. |
| Mitigation Action Type | SIP |
| Goals Met | 1, 2, 6 |
| Critical Facility (Y/N) | Yes |
| Benefits (losses avoided) | High |
| Estimated Cost | High |
| Priority* | Medium |
| Plan for Implementation | |
| Responsible Organization | Municipality with support from County |
| Local Planning Mechanism | SP, PP |
| Potential Funding Sources | HMA Grants, Municipal Budget |
| Timeline for Completion | Short Term, DOF |
| Reporting on Progress | |
| Date of Status Report/ Report of Progress | Date: 5/31/18 Status: New Action |



Action Number:
Mitigation Action Name:

PT-9

Coordinate with the facility managers at Sybron Chemicals 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 | |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | |
| Fiscal | -1 | |
| Environmental | 0 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 0 | |
| Timeline | 0 | |
| Agency Champion | 1 | |
| Other Community Objectives | 0 | |
| Total | 7 | |
| Priority (H/M/L) | Medium | |



Action Number:

PT-11

Mitigation Action Name:

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

- Creek Lane
- Lafayette Ave
- Duck Island 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 | |
|--|---|
| Hazard(s) addressed: | Flood |
| Specific problem being mitigated: | 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 | |
| Actions/Projects Considered (name of project and reason for not selecting): | No Action - current problem continues |
| Action/Project Intended for Implementation | |
| Description of Selected Action/Project | Work with owners to explore mitigation opportunities for repetitively flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties. |
| Mitigation Action Type | SIP |
| Goals Met | 1, 2 |
| Critical Facility (Y/N) | No |
| Benefits (losses avoided) | High |
| Estimated Cost | High |
| Priority* | High |
| Plan for Implementation | |
| Responsible Organization | Municipality with support from County |
| Local Planning Mechanism | PP |
| Potential Funding Sources | Grant funding; Municipal budget |
| Timeline for Completion | Short |
| Reporting on Progress | |
| Date of Status Report/ Report of Progress | Date: 5/31/18 Status: New Action |



Action Number:
Mitigation Action Name:

PT-11

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

- Creek Lane
- Lafayette Ave
- Duck Island 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.

| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
|----------------------------|-------------------------|---|
| Life Safety | 1 | |
| Property Protection | 1 | |
| Cost-Effectiveness | 0 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | |
| Fiscal | -1 | |
| Environmental | 0 | |
| Social | 0 | |
| Administrative | 1 | |
| Multi-Hazard | 0 | |
| Timeline | 1 | |
| Agency Champion | 1 | |
| Other Community Objectives | 0 | |
| Total | 8 | |
| Priority (H/M/L) | High | |