



9.40 Township of Woodland

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

9.40.1 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 |
|--|--|
| Justin Wozniak, OEM Coordinator P.O. Box 388, Chatsworth, NJ 08019 609.204.1543 jwozniak@woodlandtownship.org | Tom Toth, Deputy OEM Coordinator P.O. Box 388, Chatsworth, NJ 08019 609.352.2636 |

9.40.2 Municipal Profile

Woodland Township is located in the southern portion of Burlington County. It is home to the Pinelands Preservation area and has many miles of pristine forest, numerous lakes and streams, and various wildlife. The Township was incorporated as a township by an act of the New Jersey Legislature on March 7, 1866, from portions of Pemberton Township, Shamong Township, Southampton Township and Washington Township. Portions of the township were taken to form Tabernacle Township on March 22, 1901.

The Township covers an area of 96.4 square miles, of which 94.6 square miles is land and 1.8 square miles is water. Unincorporated communities located within the Township include: Bullock, Butlers Place, Chatsworth, DeCou Pond, Dukes Bridge, Four Mile, Goose Pond, Hedger House, Johnson Place, Jones Mill, Lebanon, Long Causeway, Old Halfway, South Park, and Woodmansie. According to the 2010 Census, the community's population was 1,788.

The township is one of 56 South Jersey municipalities that are included within the New Jersey Pinelands National Reserve, a protected natural area of unique ecology. All of Woodland Township is included in the state-designated Pinelands Area. The Pinelands Area 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. Woodland Township has lands designated as preservation area district, special agricultural production area, and Pinelands Village.

Woodland Township is governed under the Township form of government. The governing body is a three-member Township Committee, whose members are elected directly by the voters at-large to serve three-year terms of office.

Growth/Development Trends

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



Table 9.40-1. 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 | | | | | |
| None identified. | | | | | |
| Known or Anticipated Development in the Next Five (5) Years | | | | | |
| None identified. | | | | | |

* Only location-specific hazard zones or vulnerabilities identified.

9.40.3 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 9.40-2. 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 | | 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

9.40.4 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 Woodland. 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 Woodland.



Table 9.40-3. 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 | 36 | High |
| Earthquake | 100-Year GBS: \$0 500-Year GBS: \$1,492,383 2,500-Year GBS: \$21,157,418 | Occasional | 28 | Medium |
| Flood | 1% Annual Chance: \$257,980,778 | Frequent | 21 | Medium |
| Landslide | RCV Exposed to Landslide Hazard Area: \$0 | Rare | 6 | Low |
| Severe Storm | 100-year MRP: \$905,985 500-year MRP: \$1,030,013 Annualized: \$63,541 | Frequent | 48 | High |
| Severe Winter Weather | 1% GBS: \$8,880,686 5% GBS: \$44,403,430 | Frequent | 51 | High |
| Wildfire | Estimated Value in the Extreme, Very High, and High Hazard Areas: \$240,866,796 | Frequent | 45 | High |

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 Woodland.

Table 9.40-4. 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 Woodland | 0 | 1 | \$861.92 | 0 | 0 | 0 |

Source: FEMA Region 2 2017, 2018

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

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

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





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

Critical Facilities

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

Table 9.40-6. 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 |
| None identified. | | | | | |

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:

- Wading River West Branch – primary flooding source.

9.40.5 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 Woodland.

Table 9.40-7. 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 | Updated 2010 | Local | Land Use | |
| Capital Improvements Plan | No | | Finance | |
| Floodplain Management / Basin Plan | No | | | |
| Stormwater Management Plan | Updated 2008 | Local | Land Use | |
| Open Space 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.) |
|---|---|--|---------------------------------|--|
| Stream Corridor Management Plan | No | | | |
| Watershed Management or Protection Plan | No | | | |
| Economic Development Plan | No | | | |
| Comprehensive Emergency Management Plan | Updated 2012 | Local | OEM | |
| Emergency Operation Plan | No | | | |
| Post-Disaster Recovery Plan | No | | | |
| Transportation Plan | No | | | |
| Strategic Recovery Planning Report | No | | | |
| Other Plans: | | | | |
| Regulatory Capability | | | | |
| Building Code | Adopted 1983 Updated 1997 | State & Local | Construction | |
| Zoning Ordinance | Updated 1997 | Local | Land Use | |
| Subdivision Ordinance | Updated 1997 | Local | Land Use | |
| NFIP Flood Damage Prevention Ordinance | Yes | Federal, State, Local | | |
| NFIP: Cumulative Substantial Damages | No | | | |
| NFIP: Freeboard | Yes | State, Local | | |
| Growth Management Ordinances | No | | | |
| Site Plan Review Requirements | No | | | |
| Stormwater Management Ordinance | Updated 2008 | Local | Land Use | |
| Municipal Separate Storm Sewer System (MS4) | No | | | |
| 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]) | | | | |

Administrative and Technical Capability

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



Table 9.40-8. Administrative and Technical Capabilities

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

Fiscal Capability

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

Table 9.40-9. 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 | No |
| Impact fees for homebuyers or developers of new development/homes | No |
| Stormwater utility fee | No |
| Incur debt through general obligation bonds | Yes |
| Incur debt through special tax bonds | No |
| Incur debt through private activity bonds | No |
| Withhold public expenditures in hazard-prone areas | No |



| Financial Resources | Accessible or Eligible to Use (Yes/No) |
|---|--|
| Other federal or state Funding Programs | No |
| Open Space Acquisition funding programs | No |
| Other | |

Community Classifications

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

Table 9.40-10. Community Classifications

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

Table 9.40-11. 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 | |
| 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)

Thomas Boyd, Construction Official

Flood Vulnerability Summary

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

Resources

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

Compliance History

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

Regulatory

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



Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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

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. Woodland Township is a Tier B municipality.

Operational and Administration

Office of Emergency Management: The Township's Office of Emergency Management is responsible for the development, coordination and implementation of plans and projects directed at protecting the lives and property of the residents in the event of a catastrophic emergency.

Funding

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

Education and Outreach

Woodland Township has a website where one can access information about the Township government, departments, local attractions, public notices, documents and forms, and view the Township Calendar. There is



also a link for Township residents to enroll with Nixle to receive community alerts through email or their phone. Under the Departments tab on the main page visitors can access the Office of Emergency Management page which has information about wildfire preparedness, creating an emergency kit, floods and natural gas safety.

9.40.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

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



Table 9.40-12. 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. |
|---------------|--|--|---|---|--|
| WD-1 | Install an emergency generator at the Woodland Twp. School and Fire Department | Lead: Woodland Twp Support: County, NJOEM | In Progress | 1. 10 % complete 2. Funding not secured | 1. Include in 2019 HMP 2. Secure funding for generator |
| WD-2 | Obtain and install high speed internet throughout the township | Lead: Verizon Support: Woodland Twp./NJOEM | Complete | Complete | 1. Discontinue 2. Verizon leading effort |
| WD-3 | Conduct public outreach awareness days on emergency management and disaster preparedness and prevention | Municipal Clerk, OEM | No Progress | No progress made on pursuing the action | 1. Include in 2019 HMP 2. Pursue action |
| WD-4 | Develop public outreach and education efforts regarding wildfire hazard prevention and protection | Municipal Clerk, OEM | Complete | Complete | 1. Discontinue Information made available on OEM website |
| WD-5 | Evaluate benefits of participating in CRS program | Twp. Committee; Planning | No Progress | No progress made on pursuing the action | 1. Include in 2019 HMP 2. Pursue action |
| WD-6 | 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 | Complete | 1. Discontinue Information made available on OEM website |
| WD-7 | Improve municipal communication systems to | Municipality with support | Complete | Burlington County is in the process of updating our county radios to 700mhz | 1. Discontinue 2. County updating radio systems |





| 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. |
|---------------|--|--|---|---|--|
| | include information sharing with county and surrounding municipalities. | from County, NJOEM and FEMA | | system.; Funding is through Burlington County. | |
| WD-8 | Obtain and install backup power sources at all critical facilities. | Municipality with support from County, NJOEM and FEMA | In Progress | 1. 10 % complete 2. Funding not secured | 1. Include in 2019 HMP 2. Secure funding for generator |
| WD-9 | Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations | Municipality with support from County, NJOEM, FEMA and surrounding communities | Complete | Complete | 1. Discontinue 2. Ongoing capability |
| WD-10 | 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 | Complete | 1. Discontinue 2. Participating in plan update |
| WD-11 | Promote the participation of Floodplain Administrator within the planning process and other related activities. | Municipality with support from County, NJOEM and FEMA | Complete | Complete | 1. Discontinue 2. Ongoing capability |
| WD-12 | Enhance resilience to severe storms by joining the NOAA "Storm Ready" program. | Municipality with support from County, NJOEM and FEMA | No Progress | Budget constraints | 1. Include in 2019 HMP 2. Determine benefit of joining the program |



| 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. |
|---------------|---|----------------------|---|---|--|
| WD-13 | Provide public education and outreach on proper installation and/or use of backup power | Municipal Clerk, OEM | In Progress | Budget constraints | 1. Include in 2019 HMP 2. Seek funding |
| WD-14 | Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies. | Municipal DPW | Complete | Complete | 1. Discontinue 2. Ongoing capability |
| WD-15 | Evaluate benefits of participating in the Firewise Program | Municipal OEM | No Progress | Budget constraints | 1. Include in 2019 HMP 2. Determine benefit of joining the program |



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Township of Woodland 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 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 9.40-13 summarizes the comprehensive-range of specific mitigation initiatives the Township of Woodland 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 9.40-14 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.40-13. 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 |
|------------------------|--|------------------------------|---------------------|--------------------------|---|--------------------|----------------|--|--|----------|---------------------|--------------|
| WD-1 (Former WD-1) | Install an emergency generator at the Woodland Twp. School and Fire Department | Yes | All | 1, 2, 6 | Lead: Woodland Twp Support: County, NJOEM | High | High | FEMA HMA with local Improvements Budget 25% cost share | Short Term | High | SIP | PP, PR |
| WD-2 (Former WD-3) | Conduct public outreach awareness days on emergency management and disaster preparedness and prevention | No | All | 1, 2, 5 | Municipal Clerk, OEM | Medium | Low | Existing Budget | Short Term | Low | EAP | PI |
| WD-3 (Former WD-5) | Evaluate benefits of participating in CRS program | Yes | All | All | Twp. Committee; Planning | Medium | Low | Twp./Public | Short Term | Medium | LPR | PR |
| WD-4 (Former WD-8) | Obtain and install backup power sources at all critical facilities. | No | All Hazards | 1, 2, 6 | Municipality with support from County, NJOEM and FEMA | Medium | Medium | Municipal Budget | Short Term | Medium | SIP | ES |
| WD-5 (Former WD-12) | Enhance resilience to severe storms by joining the NOAA “Storm Ready” program. | No | Severe Storm | All | Municipality with support from County, NJOEM and FEMA | Medium | Low | Municipal Budget | Short Term | Medium | EAP | PI |
| WD-6 (Former WD-13) | Provide public education and outreach on proper installation and/or use of backup power | No | Severe Storm | 1, 2, 5 | Municipal Clerk, OEM | Medium | Low | Municipal Budget | Short Term | High | LPR | PR |
| WD-7 (Former WD-15) | Evaluate benefits of participating in the Firewise Program | No | Wildfire | All | Municipal OEM | Medium | Low | Municipal Government , OEM | Short Term | Medium | LPR | PR |
| WD-8 | During future updates of the Master Plan, Stormwater Management Plan, or other plans, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan | No | All Hazards | All | Municipality | High | Low | Municipal Budget | Short Term, Depending on update schedule | High | LPR | PR, PI |





Table 9.40-13. 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 |
|------------|---|------------------------------|---------------------|--------------------------|---------------------------|--------------------|----------------|--------------------|----------|----------|---------------------|--------------|
| | recommendations to update local building and zoning codes to create a more resilient community. | | | | | | | | | | | |

Notes:

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

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

Acronyms and Abbreviations:

| | |
|------|-------------------------------------|
| CAV | Community Assistance Visit |
| CRS | Community Rating System |
| DPW | Department of Public Works |
| FEMA | Federal Emergency Management Agency |
| FPA | Floodplain Administrator |
| HMA | Hazard Mitigation Assistance |
| N/A | Not applicable |
| NFIP | National Flood Insurance Program |
| OEM | Office of Emergency Management |

Potential FEMA HMA Funding Sources:

| | |
|------|--|
| FMA | Flood Mitigation Assistance Grant Program |
| HMGP | Hazard Mitigation Grant Program |
| PDM | Pre-Disaster Mitigation Grant Program |
| RFC | Repetitive Flood Claims Grant Program (discontinued in 2015) |
| SRL | Severe Repetitive Loss Grant Program (discontinued in 2015) |

Timeline:

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

Costs:

Where actual project costs have been reasonably estimated:

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

Where actual project costs cannot reasonably be established at this time:

| | |
|--------|--|
| Low | Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program. |
| Medium | Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years. |
| High | Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project. |

Benefits:

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

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

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

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





Mitigation Category:

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

CRS Category:

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



Table 9.40-14. 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 |
|----------------------------------|--|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-----------------|-------|---------------------|
| WD-1 (Former WD-1) | Install an emergency generator at the Woodland Twp. School and Fire Department | 1 | 1 | 1 | 1 | 1 | 1 | -1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 | High |
| WD-2 (Former WD-3) | Conduct public outreach awareness days on emergency management and disaster preparedness and prevention | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 8 | Low |
| WD-3 (Former WD-5) | Evaluate benefits of participating in CRS program | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 | Medium |
| WD-4 (Former WD-8) | Obtain and install backup power sources at all critical facilities. | 1 | 1 | 1 | 1 | 1 | 1 | -1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 | Medium |
| WD-5 (Former WD-12) | 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 |
| WD-6 (Former WD-13) | 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 |
| WD-7 (Former WD-15) | Evaluate benefits of participating in the Firewise Program | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 8 | Medium |
| WD-8 | During future updates of the Master Plan, Stormwater Management Plan, or other plans, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 10 | High |





Table 9.40-14. 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 |
|----------------------------------|---|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-----------------|-------|---------------------|
| | hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community. | | | | | | | | | | | | | | | | |

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



9.40.7 Future Needs to Better Understand Risk/Vulnerability

None at this time.

9.40.8 Hazard Area Extent and Location

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

9.40.9 Additional Comments

None at this time.



Figure 9.40-1. Township of Woodland Hazard Area Extent and Location Map 1

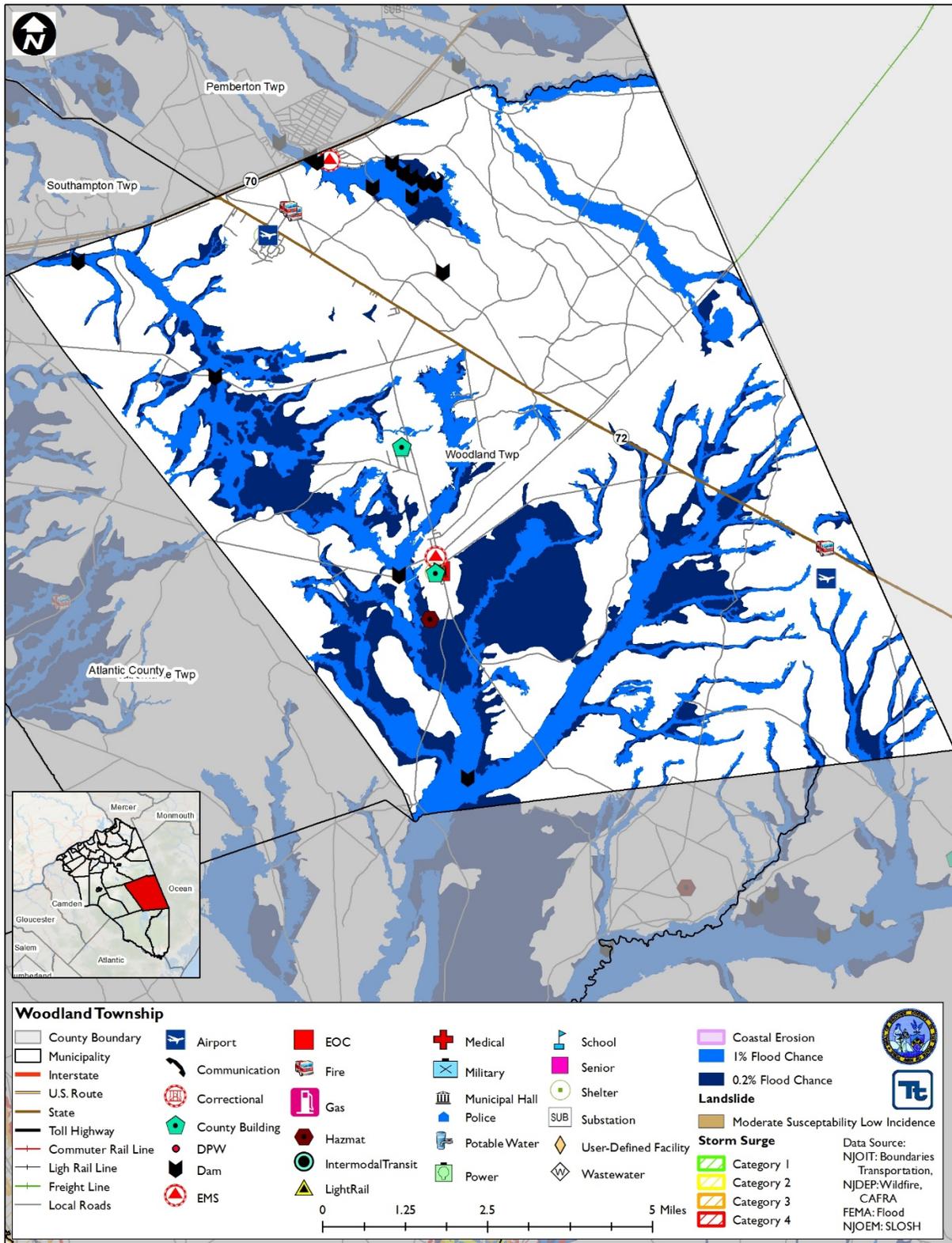
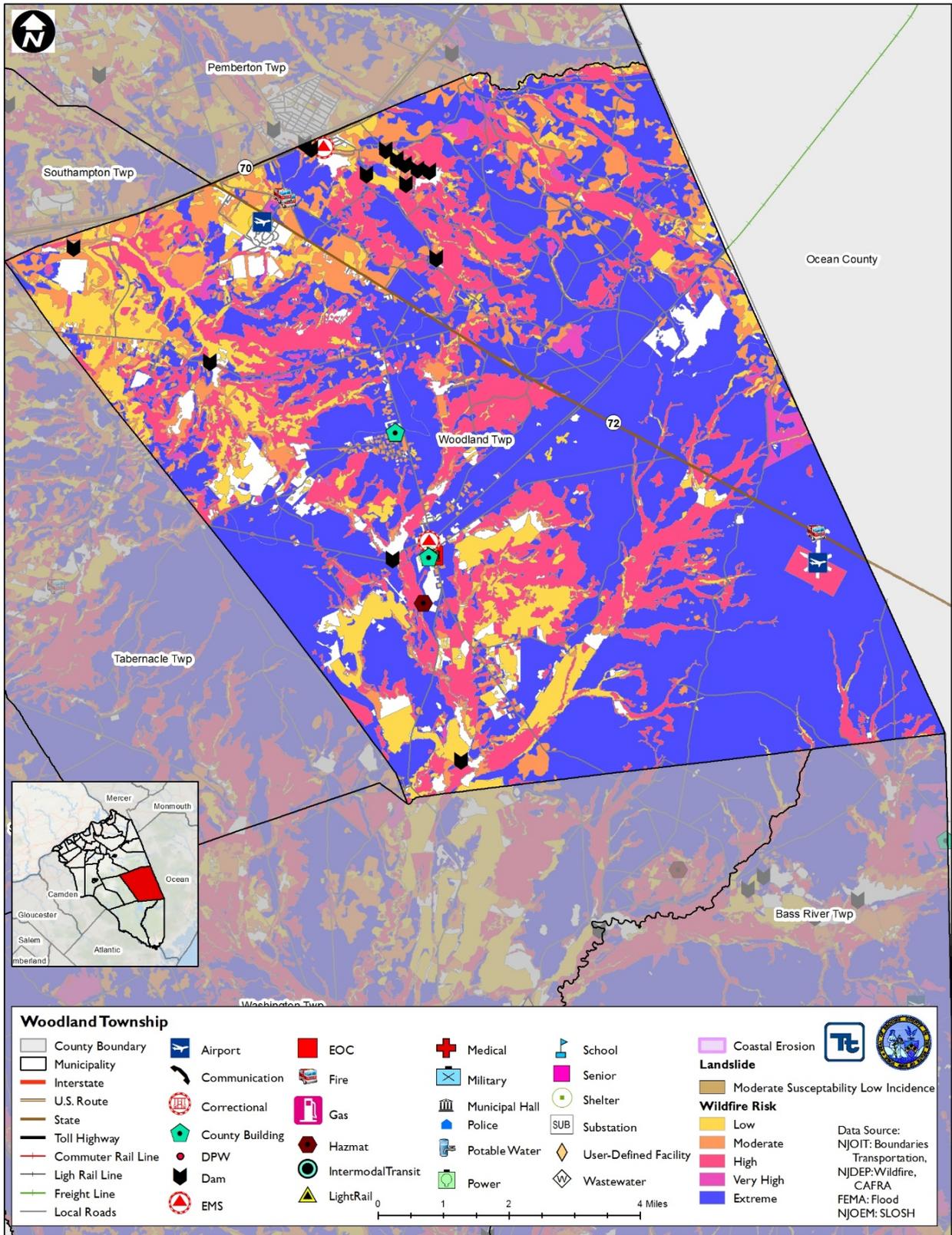




Figure 9.40-2. Township of Woodland Hazard Area Extent and Location Map 2





Action Number:

WD-1 (Former WD-1)

Mitigation Action Name:

Install an emergency generator at the Woodland Twp. School and Fire Department

| Assessing the Risk | |
|--|---|
| Hazard(s) addressed: | All |
| 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 Solar panels: weather dependent and costly. Mobile generator: may lack sufficient power supply or run time. |
| 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) | High |
| Estimated Cost | High |
| Priority* | High |
| Plan for Implementation | |
| Responsible Organization | Lead: Woodland Twp Support: County, NJOEM |
| Local Planning Mechanism | PP, PR |
| Potential Funding Sources | FEMA HMA with local Improvements Budget 25% cost share |
| Timeline for Completion | Short Term |
| Reporting on Progress | |
| Date of Status Report/ Report of Progress | Date: 1/31/18 Status: Funding not secured |



Action Number:

WD-1 (Former WD-1)

Mitigation Action Name:

Install an emergency generator at the Woodland Twp. School and Fire Department

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



Action Number:

WD-4 (Former WD-8)

Mitigation Action Name:

Obtain and install backup power sources at all critical facilities.

| 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 Solar panels: weather dependent and costly. Mobile generator: may lack sufficient power supply or run time. |
| 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) | No |
| Benefits (losses avoided) | Medium |
| Estimated Cost | Medium |
| Priority* | Medium |
| Plan for Implementation | |
| Responsible Organization | Municipality with support from County, NJOEM and FEMA |
| Local Planning Mechanism | ES |
| 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: Funding not secured |



Action Number:

WD-4 (Former WD-8)

Mitigation Action Name:

Obtain and install backup power sources at all critical facilities.

| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
|----------------------------|----------------------------|---|
| Life Safety | 1 | |
| Property Protection | 1 | |
| Cost-Effectiveness | 1 | |
| Technical | 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 | |