



9.17 BOROUGH OF WOODBINE

This section presents the jurisdictional annex for the Borough of Woodbine. The annex includes a general overview of the Borough of Woodbine; an assessment of the Borough of Woodbine’s risk, vulnerability, and mitigation capabilities; and a prioritized action plan to implement prior to a disaster to reduce future losses and achieve greater resilience to natural hazards.

9.17.1 Hazard Mitigation Planning Team

The following individuals are the Borough of Woodbine’s identified HMP update primary and alternate points of contact and NFIP Floodplain Administrator.

Table 9.17-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name / Title: William Pikolycky, Mayor/OEM Coordinator Address: 2 South Boyd Street, Cape May Court House, NJ 08210 Phone Number: 609-861-5301 Email: mayor@boroughofwoodbine.net	Name / Title: Louis Ciabaton, Deputy OEM Coordinator Address: 2 South Boyd Street, Cape May Court House, NJ 08210 Phone Number: 609-276-7986 Email: Ciabaton@hotmail.com
NFIP Floodplain Administrator	
Name / Title: Bruce Graham, Borough Engineer Address: 2 South Boyd Street, Cape May Court House, NJ 08210 Phone Number: 609-465-2600 Email: bgraham@vannoteharvey.com	

9.17.2 Jurisdiction Profile

The Borough of Woodbine is located within the northern section of Cape May County, New Jersey. It is bounded on the north and east by the Township of Upper and on the south and west by the Township of Dennis. It is part of the Ocean City Metropolitan Statistical Area.

According to the U.S. Census, the 2010 population for the Borough of Woodbine was 2,472. The estimated 2018 population was 2,490, a 0.7 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 7.2 percent of the population is 5 years of age or younger and 16.7 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.17.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.17-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.17-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development.



Table 9.17-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	1	0	1	0	2	0	1	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	1	0	0	0	0	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None identified										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None anticipated										

* Only location-specific hazard zones or vulnerabilities identified.

9.17.4 Capability Assessment

The Borough of Woodbine performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 6 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community’s adaptive capacity.
- Information on National Flood Insurance Program (NFIP) compliance.

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, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.17.4). The Borough of Woodbine identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

PLANNING, LEGAL AND REGULATORY CAPABILITY

The table below summarizes the legal and regulatory tools that are available to the Borough of Woodbine and where hazard mitigation has been integrated.



Table 9.17-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: <ul style="list-style-type: none"> State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019 (with NJ edits dated March 14, 2020 coming soon) Building and Housing, Chapter X, adopted by the Borough Council. The Borough of Woodbine pursuant to N.J.S.A. 52-27D 110, et seq., and N.J.A.C. 5:23-4.3 hereby relinquishes its jurisdiction for the administration and enforcement of the Uniform Construction Code and hereby transfers jurisdiction for the administration and enforcement of the Uniform Construction Code to the Department of Community Affairs of the State of New Jersey. 					
Zoning Code	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
Comment: <ul style="list-style-type: none"> State permissive on local level. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. Zoning, Chapter XXVI, adopted by the Board of Commissioners. A comprehensive ordinance regulating and limiting the uses of land and the users and locations of buildings and structures; regulating and restricting the height and bulk of buildings and structures and determining the areas of yards, courts and other open spaces; regulating and restricting the density of population; dividing the Borough into districts for such purposes; adopting a map of the Borough showing boundaries and the classification of such districts; and prescribing penalties for the violation of its provisions. The Zoning Chapter is adopted pursuant to N.J.S.A. 40:55D-1, et seq., in order to promote and protect the public health, safety, morals, and general welfare, and in furtherance of more specific objectives, such as; implementing the requirements of the Pinelands Protection Act (N.J.S.A. 13:18A-1, et seq.) and the Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-1, et seq.) along with several standard purposes listed in the Municipal Land Use Law. In addition to the standard development regulations contained in most Zoning Ordinances, this Chapter contains references throughout pertaining to the Pinelands Protection Act. It has separate sections on forestry, protection from fire hazards, flood protection, stormwater drainage and airport zoning. 					
Subdivisions	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
Comment: <ul style="list-style-type: none"> P.L.1975, c.291 (C.40:55D-47): 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval a. The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. Subdivisions, Chapter XXIV, adopted by the Borough Council. The purpose of this Chapter is to provide rules, regulations and standards to guide land subdivision in the Borough of Woodbine in order to promote the public health, safety, convenience and general welfare of the municipality by helping to assure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for circulation, utilities and services; and to implement the objectives of the Pinelands Protection Act and the Pinelands Comprehensive Management Plan. This Chapter combines many standard subdivision design and approval requirements with those required by the Borough’s location in the Pinelands Area. 					
Stormwater Management	Yes	State & Local	Yes	Yes	-



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<p>Comment:</p> <ul style="list-style-type: none"> See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8 Stormwater Control, Chapter XXI, approved by the Borough Council. The purpose of this Chapter is Flood control, groundwater recharge, and pollutant reduction through nonstructural or low impact techniques shall be explored before relying on structural BMPs. Structural BMPs should be integrated with nonstructural stormwater management strategies and proper maintenance plans. Nonstructural strategies include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge. This section shall be applicable to all site plans and subdivisions for the following major developments that require preliminary or final site plan or subdivision review. Applicants for development shall identify the nonstructural measures incorporated into the design of the project. The applicant shall submit a detailed Land Use Planning and Source Control Plan which provides a description of how the site will be developed to meet the erosion control, groundwater recharge and stormwater runoff quantity and quality standards through use of nonstructural or low impact development techniques and source controls to the maximum extent practicable before relying on structural BMPs. The Land Use Planning and Source Control Plan shall include a detailed narrative and associated illustrative maps and/or plans that specifically address how each of the nine (9) nonstructural strategies identified in Subchapter 5 of the NJDEP Stormwater Management Rules (N.J.A.C. 7:8-5) and set forth in this Chapter (paragraph 4(a)(1) through (9)) will be implemented to the maximum extent practicable. This is a comprehensive Stormwater Management Ordinance, the development of which is influenced by the Borough's location in CAFRA Zone and Pinelands Area. 					
Post-Disaster Recovery	No	-	No	-	-
<p>Comment:</p>					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
<p>Comment: N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as estimated completion dates for improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</p> <ul style="list-style-type: none"> Section 21-1.3 of the Borough's Flood Damage Prevention Ordinance 'Statement of Purpose' has a provision to ensure that potential buyers are notified that property is in an area of special flood hazard. 					
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-
<p>Comment:</p> <ul style="list-style-type: none"> State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. 					
Site Plan Review	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance. Land Use Procedures, Chapter XXIII, adopted by the Borough Council. This Chapter establishes the procedures for review Boards and development approvals, including Site Plans. The Woodbine Planning Board, a nine (9) member Board, has studied the concept of unifying 					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<p><i>the powers of the Zoning Board of the Borough of Woodbine with those of the Planning Board of the Borough as permitted by N.J.S.A. 40:55D-25(c), amended by P.L. 1994, c. 186, allowing a municipality having a population of less than ten thousand (10,000) to so consolidate the powers of the Zoning and Planning Boards into an existing nine (9) member municipal Planning Board. The Borough has exercised that power and created a unified Board.</i></p> <ul style="list-style-type: none"> <i>This Chapter mainly addresses the procedures for Site Plan approval. Development standards that apply to Site Plan improvements are contained in other Chapters of the Code.</i> 					
Environmental Protection	No	-	No	-	-
Comment: <i>Although there is no separate Environmental Protection Ordinance, it should be noted that environmental protections are afforded to the Borough by way of its location in the CAFRA Zone and the Pinelands.</i>					
Flood Damage Prevention	Yes	State & Local	Yes	Yes	-
Comment: <ul style="list-style-type: none"> <i>The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016.</i> <i>Flood Damage Prevention, Chapter XXII, adopted by the Borough Council on 07-20-17 and effective on 10-05-17. It is the purpose of this chapter 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:</i> <ul style="list-style-type: none"> <i>Protect human life and health;</i> <i>Minimize expenditure of public money for costly flood control projects;</i> <i>Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public</i> <i>Minimize prolonged business interruptions;</i> <i>Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;</i> <i>Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;</i> <i>Ensure that potential buyers are notified that property is in an area of special flood hazard; and</i> <i>Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</i> <i>In order to accomplish its purposes, this chapter includes methods and provisions for:</i> <ul style="list-style-type: none"> <i>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;</i> <i>Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction;</i> <i>Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;</i> <i>Controlling filling, grading, dredging, and other development which may increase flood damage; and,</i> <i>Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.</i> <i>It appears this Chapter requires elevation of regulated improvements in the SFHA to be equivalent to the minimum State standards. Does the Borough want to consider increasing the minimum the minimum amount of required freeboard and adding it as an action in the HMP?</i> 					
Wellhead Protection	No	-	No	-	-
Comment:					
Emergency Management	No	-	No	-	-
Comment:					
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Other	Yes	Federal & Local	No	Yes	-
Comment: <ul style="list-style-type: none"> Air Safety, Chapter XXVIII, adopted by the Borough Council. Air Safety and Hazardous Zoning for the Area Immediately Surrounding Woodbine Municipal Airport. This Chapter establishes minimum standards for the control of airport and aeronautical hazards, and standards for land use adjacent to airports is hereby adopted pursuant to N.J.A.C. 16:62 et seq., as amended May 15, 1989. These standards shall become part of the master plan of development. A copy of N.J.A.C. 16:62, et seq., is annexed hereto and made a part hereof, by reference. 					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
Comment: <ul style="list-style-type: none"> 2018 Revised NJ Statute 40:27-2; the county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen freeholders with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. 					
Capital Improvement Plan	Yes	Local	No	Yes	-
Comment: <ul style="list-style-type: none"> Capital Budget and Capital Improvement Program, 2019, approved by the Borough Council. The Borough is only undertaking the capital projects that will maintain the services and condition of the Borough's facilities. The 2019 Capital Projects include; various improvements and infrastructure, public facility upgrades and open space. 					
Disaster Debris Management Plan	No	-	No	-	-
Comment:					
Floodplain or Watershed Plan	No	-	No	-	-
Comment:					
Stormwater Management Plan	No	-	Yes	-	-
Comment: <ul style="list-style-type: none"> The Stormwater Management rules (N.J.A.C. 7:8) rules were published in the February 2, 2004 NJ Register. These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. 					
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
Comment: <ul style="list-style-type: none"> The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants associated with existing stormwater runoff. The NJPDES rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act. These NJPDES rules govern the issuance of permits to entities that own or operate small municipal separate storm sewer systems, known as MS4s. Under this program, permits must be secured by municipalities, certain public complexes such as universities and hospitals, and State, interstate and federal agencies that operate or maintain highways. The permit program establishes the Statewide Basic 					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<p><i>Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component.</i></p>					
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment:					
<ul style="list-style-type: none"> NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone management Rules N.J.A.C. 7:7E-1 et seq. 					
Community Wildfire Protection Plan	No	Local	No	Yes	-
Comment:					
<ul style="list-style-type: none"> Zoning, Chapter XXVI, adopted by the Borough Council. The Borough does not have a Community Wildfire Protection Plan, but within the Zoning Code there is a separate section pertaining to Fire Management 26-43.9, with specific requirements for wildfire protection. 					
Community Forest Management Plan	Yes	State & Local	No	No	2021-Woodbine-004
Comment:					
<ul style="list-style-type: none"> Community Forestry Management Plan, dated October 28, 2004. Period covered November 2004 – October 2009. The purpose of the Community Forestry Management Plan is to continue to promote a safe, manageable, and productive community forest and shade tree resource for the Borough of Woodbine, continuing the efforts of the first five-year plan. Goals and Objectives: <ul style="list-style-type: none"> Enhancement and Safety of the Tree Resource Maintain Safety of Residents and Visitors Diversify the Tree Species Composition along The Borough's Streets and Roadways Ensure the Health of the Borough's Community Forest Proactive Program to Ensure Quick Response After a Natural Disaster Continue to Promote Stewardship Among the Citizens of Woodbine The Plan includes a number of recommendations but is 15 years out of date. 					
Transportation Plan	No	-	No	-	-
Comment:					
Agriculture Plan	No	-	No	-	-
Comment:					
Climate Action Plan	No	-	No	-	-
Comment:					
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of this been integrated into your mitigation plan?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Other	No	-	No	-	-
Comment:					
•					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	-	-
Comment:					
• Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L.1989, c.222, s.19.					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
Comment:					
Post-Disaster Recovery Plan	No	-	No	-	-
Comment:					
Continuity of Operations Plan	No	-	No	-	-
Comment:					
Public Health Plan	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					
•					

Table 9.17-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Planning/Zoning
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	No. The Borough is 90 percent built out.

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.17-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning and Zoning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-



Staff/Personnel Resource	Available?	Department/Agency/Position
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance program to reduce risk	Yes	Public Works
Mutual aid agreements	Yes	Volunteer Fire Department with surrounding departments
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Under contract
Engineers or professionals trained in building or infrastructure construction practices	Yes	Under contract
Planners or engineers with an understanding of natural hazards	Yes	Under contract
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	Yes	Under contract
Stormwater engineer	Yes	Engineer; review applications for stormwater management impact
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	Yes	Water Department; responsible to maintain water quality
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Manuel Gonzalez
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Triad Consultants
Resilience Officer	No	-
Other	No	-

FISCAL CAPABILITY

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

Table 9.17-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes – Currently Using
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	Yes – Have Not Used
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	Yes – Have Not Used
Incur Debt through Special Tax Bonds	Yes – Never Used
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes – COAH Fee Ordinance Established but Not Utilized Yet
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	No



EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Woodbine.

Table 9.17-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes, Mayor’s office
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	No
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	No

COMMUNITY CLASSIFICATIONS

The table below summarizes the classifications for community programs available to the Borough of Woodbine.

Table 9.17-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Bronze	December 21, 2018

ADAPTIVE CAPACITY

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.17-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
Climate Change and Sea Level Rise	Moderate
Coastal Erosion	Moderate
Disease Outbreak (new)	Moderate
Drought (new)	Moderate
Flood	Moderate
Hurricane	Moderate
Nor’Easter	Moderate



Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
Severe Weather	Moderate
Severe Winter Weather	Strong
Tsunami	Moderate
Wildfire	Moderate
Climate Change and Sea Level Rise	Moderate

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement; Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

The Borough does not currently have access to resources to determine the possible impacts of climate change upon the municipality. The administration is supportive of integrating climate change in policies or actions. However, budget limitations exist.

NATIONAL FLOOD INSURANCE PROGRAM

This section provides specific information on the management and regulation of the regulatory floodplain.

Table 9.17-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering/Zoning
Who is your floodplain administrator? (name, department/position)	Bruce Graham, Borough Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2017
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Meets
When was the most recent Community Assistance Visit or Community Assistance Contact?	Unknown
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? - If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? -If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction? * -What is the insurance in force? -What is the premium in force?	1 policy
How many total loss claims have been filed in your jurisdiction? * -How many claims are still open or were closed without payment? -What were the total payments for losses?	0 claims
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

*According to FEMA statistics as of October 2020

ADDITIONAL AREAS OF EXISTING INTEGRATION





- While the Borough recognizes that it has a risk to wildfire, the entire Borough is on city water which includes fire hydrants. The State has an aggressive state forest fire program.
- Tree Assessment of Municipal Trees: The Borough completed an iTree Ecosystem Report in August 2017
- Sustainable Jersey: The Borough is a bronze certified community in the Sustainable Jersey program. The Borough has earned points toward certification through community partnership and outreach, holding a green fair, energy efficiency for municipal facilities, having a wind ordinance, a sustainable land use pledge, development of an eco-park, adopting a Complete Streets Policy, instituting a water conservation education program, adopting a clustering ordinance, an environmental assessment ordinance, a habitat conservation ordinance, development of the Borough’s Community Forestry Management Plan, the iTree assessment, and a paper shredding day.

9.17.5 Hazard Event History Specific to the Jurisdiction

Cape May County has a history of hazard events, as detailed in Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles in Section 5.4 (Hazard Profiles) and includes a chronology of events that affected Cape May County and its jurisdictions. The Borough of Woodbine’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Cape May County. Table 9.17-11 provides details regarding municipal-specific loss and damages the Borough experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.17-11. Hazard Event History

Date(s) of Event	Event Type (disaster declaration if applicable)	Cape May County Designated?	Summary of Event	Summary of Local Damages and Losses
January 22, 2016 - January 24, 2016	DR-4264: Severe Winter Weather and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 rd and 24 th .	Although the county was impacted, the Borough did not received damages.
January 20, 2020 and continuing	EM-3451, DR-4488: COVID-19 Pandemic	Yes	The coronavirus pandemic resulted in the need for shutdowns and social distancing and mask requirements.	The Borough was subject to masking and social distancing restrictions and business /school closures due to coronavirus.

Source: NOAA NCEI 2020, FEMA 2020

9.17.6 Jurisdiction-Specific Vulnerabilities and Hazard Ranking

The hazard profiles in Section 5 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. Refer to Section 5.1 (Methodology) and Section 5.3 (Hazard Ranking) for a detailed summary for the Borough of Woodbine risk assessment results and data used to determine the hazard ranking.

REPETITIVE FLOOD LOSSES

The table below summarizes the repetitive and severe repetitive flood losses in the Borough of Woodbine.

- Number of repetitive loss (RL) properties: 0
- Number of severe repetitive loss (SRL) properties: 0



- Number of RL/SRL properties that have been mitigated: 0

Source: NFIP FEMA Region 2, 2020

Note: The number of SRL properties excludes RL properties.

CRITICAL FACILITIES

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain.

Table 9.17-12. Potential Flood Losses to Critical Facilities and Lifelines

Name	Type	Exposure	
		1% Event	0.2% Event
None identified			

Source: FEMA DFIRM 2014/2017; Cape May County 2020

Note:

*Identified lifeline

IDENTIFIED ISSUES

The jurisdiction has identified the following vulnerabilities within their community:

- Stormwater flooding occur affecting a critical facility (Woodbine Developmental Center) affecting and various homes in the location.

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Borough of Woodbine 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 adequate for planning purposes. Maps have been generated only for those hazards that can be clearly identified using mapping techniques and technologies and for which the Borough of Woodbine has significant exposure. A map of the Borough of Woodbine hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain, as well as identified critical facilities within the municipality.

HAZARD RANKING

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; its potential impacts on people, property, and the economy; community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Cape May County as a whole. Therefore, each jurisdiction ranked the degree of risk to each hazard as it pertains to their community factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential natural hazards for the Borough of Woodbine. The Borough of Woodbine has reviewed the Cape May County hazard ranking table and has provided input to its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard ranking, the Borough indicated the following:



- The Borough agreed with the calculated hazard rankings.

Table 9.17-13. Borough of Woodbine Hazard Ranking Input

Climate Change and Sea Level Rise	Coastal Erosion	Disease Outbreak (new)	Drought (new)	Flood	Hurricane
Low	Low	Medium	Medium	Low	Medium

Nor'Easter	Severe Weather	Severe Winter Weather	Tsunami	Wildfire
High	High	High	Low	High

9.17.7 Mitigation Strategy and Prioritization

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

PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 2015 HMP. 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 can also be found under ‘Capability Assessment’ presented previously in this annex.

Table 9.17-14. Status of Previous HMP Mitigation Actions

2015 Action Number	Action Description	Responsible Party	Status	Include in the 2021 HMP Update?	
			(In Progress, No Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
BW-1a	Property Mitigation Support – Retrofit: Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.	Borough (likely through NFIP Floodplain Administrator); State OEM, County OEM	Ongoing Capability (no properties currently)		
BW-1b	Property Mitigation Support – Acquisition/Relocation: Where appropriate, support acquisition and/or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.	Borough (likely through NFIP Floodplain Administrator); State OEM, County OEM	Ongoing Capability (no properties currently)		
BW-2	Support County-wide initiatives identified in Section 9.1 of the County Annex. Support county-wide initiatives identified in the Cape May County Hazard Mitigation Plan	Local departments (as applicable for specific initiative)	Ongoing Capability		



2015 Action Number	Action Description	Responsible Party	Status	Include in the 2021 HMP Update?	
			(In Progress, No Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
BW-3	Retrofit (harden) Borough facilities that may be used to support sheltering and staging operations (in cooperation with County and State OEM), including backup utilities where needed. Continue to seek funding for permanent backup generators at the school (ARC-designated shelter), airport, municipal building, EOC/ambulance facility, and water pumping station	Municipal Emergency Manager with support from County OEM and NJOEM	No Progress	X	2021-Woodbine-002, 2021-Woodbine-005
BW-4	Work with County OEM and Borough industries and commercial operations (e.g. Sea Isle Ice Company, Woodbine Municipal Airport) to enhance their capabilities to support regional emergency preparedness, response and recovery.	County and Local OEM; owners of applicable Borough businesses and facilities	Ongoing Capability		
BW-5	Continue to support County-led efforts to conduct an engineering study to understand flooding issues and evaluate possible solutions along Webster Avenue (CR638) in the Borough of Woodbine.	County Engineering with municipal support	Ongoing Capability		
BW-6	Become a National Fire Protection Association (NFPA) "Firewise" community	Local Fire Chiefs working with County Fire Coordinator	No Progress	X	2021-Woodbine-003
BW-7	Through attendance at the regular meetings of the Cape May County Fire Chiefs Association, and in partnership with the New Jersey Division of Fire Safety and the New Jersey State Forest Fire Service, expand and enhance public awareness and education programs that support wildfire mitigation at the property owner level; and expand local wildfire preparedness and response capabilities through participation in seminars and training, and the implementation of recommendations and initiatives offered by these agencies, as resources permit.	Local Fire Chiefs	Ongoing Capability		



2015 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update? Check if Yes	Enter 2021 HMP Action #
BW-8	Installation of stormwater management infrastructure along multiple Borough roads in order to mitigate recurring flooding conditions and maintain access along a County Emergency Evacuation Route during storm events.	Public Works	In Progress	X	2021-Woodbine-001

In addition to the above progress, the Borough of Woodbine identified the following mitigation projects/activities that were completed but not identified in the 2015 HMP mitigation strategy:

- None identified

PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Borough of Woodbine participated in a risk assessment workshop in September 2020 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Borough of Woodbine participated in a mitigation action workshop in October 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Cape May County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; and 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). Section 6 (Mitigation Strategy) and Appendix F (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

Table 9.17-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Woodbine would like to pursue in the future to reduce the effects of hazards. Some of these initiatives might be previous actions carried forward for this HMP update. Initiatives are dependent upon available funding (grants and local match availability) and can be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the 4 FEMA mitigation action categories and the 6 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 (Mitigation Strategy), 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 actions as *High, Medium, or Low*. The table below summarizes the evaluation of each mitigation initiative, listed by action number.

Table 9.17-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.17-15. Proposed Hazard Mitigation Initiatives

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021-Woodbine-001	Clay, Heilprin & Webster Stormwater Extension	<p>Problem: Stormwater flooding impacts a critical facility (Woodbine Developmental Center) and affects various homes in the location.</p> <p>Solution: The Borough Engineer will design the necessary stormwater improvements. The Borough will then complete construction of a one block extension of the existing stormwater pipe.</p>	Existing	Flood, Severe Storm	1	Borough Engineer	HMGP, BRIC, Borough budget	Will provide a risk reduction to protect the critical facility's water main and equipment and prevent flooding of homes in the location	High	1 year	High	SIP	SP
2021-Woodbine-002	Harden Critical Facilities	<p>Problem: Borough facilities that may be used for sheltering include the school, airport, municipal building, and EOC/ambulance facility. These facilities require retrofit to ensure they are protected from severe weather events.</p> <p>Solution: The Borough will retrofit (harden) Borough facilities that may be used to support sheltering and staging operations. Retrofitting will include ensuring buildings are protected from wind and storm damages.</p>	Existing	Severe Weather, Severe Winter Weather, Nor'Easter, Hurricane	1, 3	Engineer, Municipal Emergency Manager	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Borough Budget	Ensures continuity of operations	High	Within 5 years	High	SIP	PP, ES



Section 9.17 - Borough of Woodbine

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021-Woodbine-003	Become a Firewise Community	Problem: The Borough has wildfire risk but is not a member of the Firewise Community. Solution: The Borough will enroll in the Firewise program.	New and Existing	Wildfire	2, 4, 5	Administration	Borough budget	Increased wildfire capabilities	Staff time	Within 5 years	High	LPR, EAP	PR, PI
2021-Woodbine-004	Community Forestry Management Plan	Problem: The purpose of the Community Forestry Management Plan is to continue to promote a safe, manageable, and productive community forest and shade tree resource for the Borough of Woodbine, continuing the efforts of the first five-year plan. However, the plan is 15 years out of date. Solution: The Borough will update the Community Forestry Management Plan, including the identification of mitigation actions to protect from the impacts of drought and wildfire.	N/A	Drought, Wildfire	2, 5	Administration	Borough budget	Updated planning and identified actions	Staff time	Within 2 years	High	LPR, NSP	NR
2021-Woodbine-005	Backup Power	Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Borough has facilities that lack backup power including the school (ARC-designated shelter), airport, municipal building, EOC/ambulance facility, and water pumping station. Solution: The Engineer will research what size generator is needed to power each facility. The Borough will then purchase and install the selected generators and necessary electrical components to supply backup power to each facility.	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 3, 4	Engineer, Municipal Emergency Manager with support from County OEM and NJOEM	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	Ensure continuity of operations of critical facilities	\$50,000 per generator	Within 5 years	High	SIP	ES

Notes:

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works
 FEMA Federal Emergency Management Agency

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 BRIC Building Resilient Infrastructure and Communities Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.





FPA Floodplain Administrator
HMA Hazard Mitigation Assistance
N/A Not applicable
NFIP National Flood Insurance Program
OEM Office of Emergency Management

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

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 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. 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 preserve or restore the functions of natural systems. 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. 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.

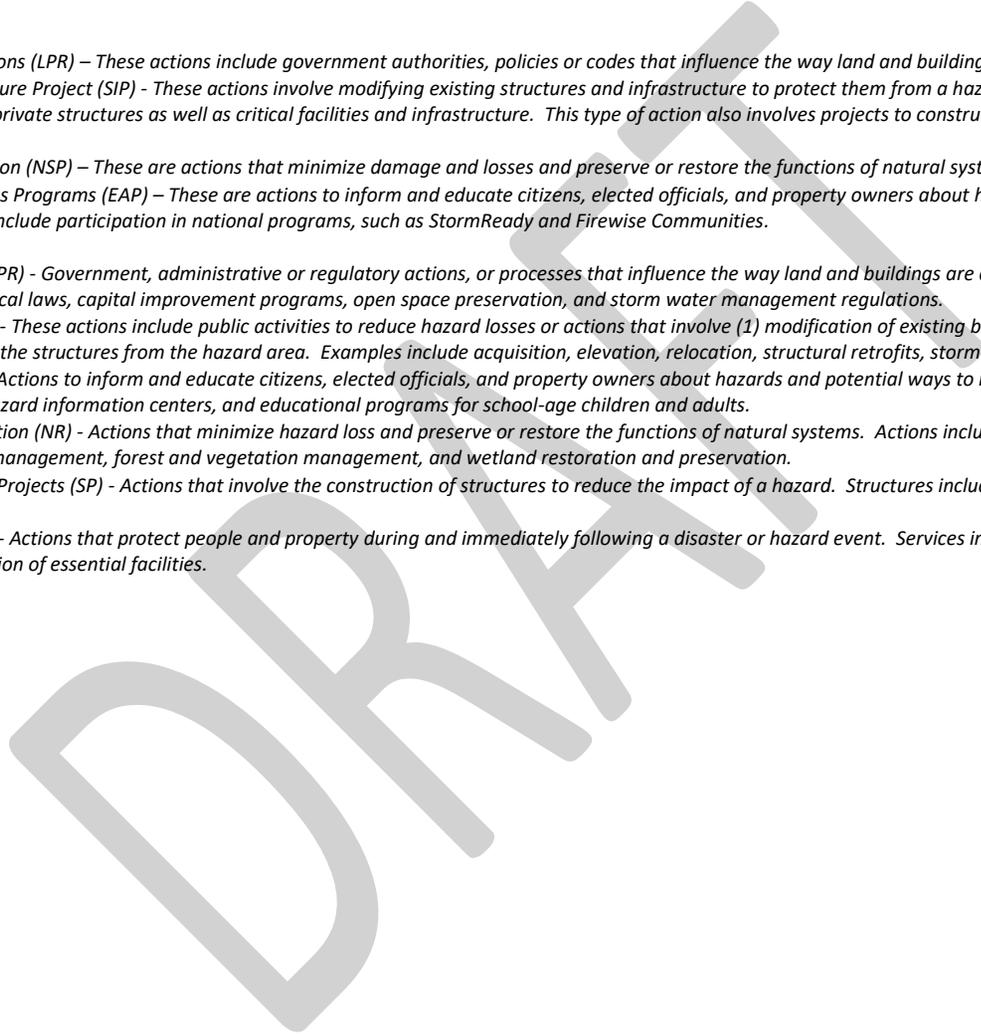




Table 9.17-16. Summary of Prioritization of Actions

Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2021-Woodbine-001	Clay, Heilprin & Webster Stormwater Extension	0	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-Woodbine-002	Harden Critical Facilities	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021-Woodbine-003	Become a Firewise Community	1	1	1	1	1	1	1	1	1	1	0	0	1	1	12	High
2021-Woodbine-004	Community Forestry Management Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-Woodbine-005	Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).

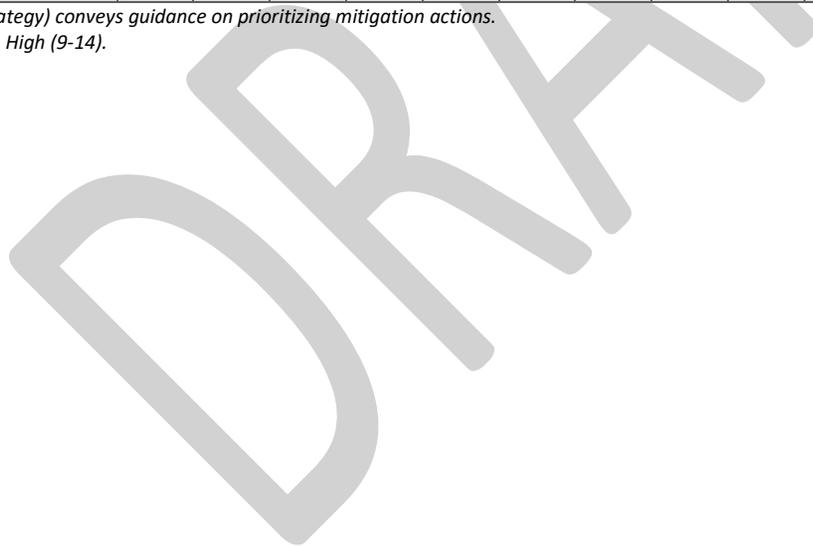




Table 9.17-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilient	Community Capacity Building
Climate Change and Sea Level Rise								
Coastal Erosion								
Disease Outbreak (new)								
Drought (new)				X			X	X
Flood						X		
Hurricane		X			X			
Nor' Easter		X			X			
Severe Weather		X			X	X		
Severe Winter Weather		X			X			
Tsunami								
Wildfire	X		X	X			X	X

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

- RED** high ranked hazard
- ORANGE** medium ranked hazard
- YELLOW** low ranked hazard

9.17.8 Staff and Local Stakeholder Involvement in Annex Development

The Borough of Woodbine followed the planning process described in Section 3 (Planning Process). This annex was developed over the course of several months with input from many jurisdiction representatives. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization. The following table summarizes who participated and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.17-18. Contributors to the Annex

Name	Title	Method of Participation
William Pikolycky	Mayor/OEM Coordinator	Primary point of contact
Louis Ciabaton	Deputy OEM Coordinator	Alternate point of contact
Bruce Graham	Borough Engineer	NFIP floodplain administrator



Figure 9.17-1. Borough of Woodbine Hazard Area Extent and Location Map 1

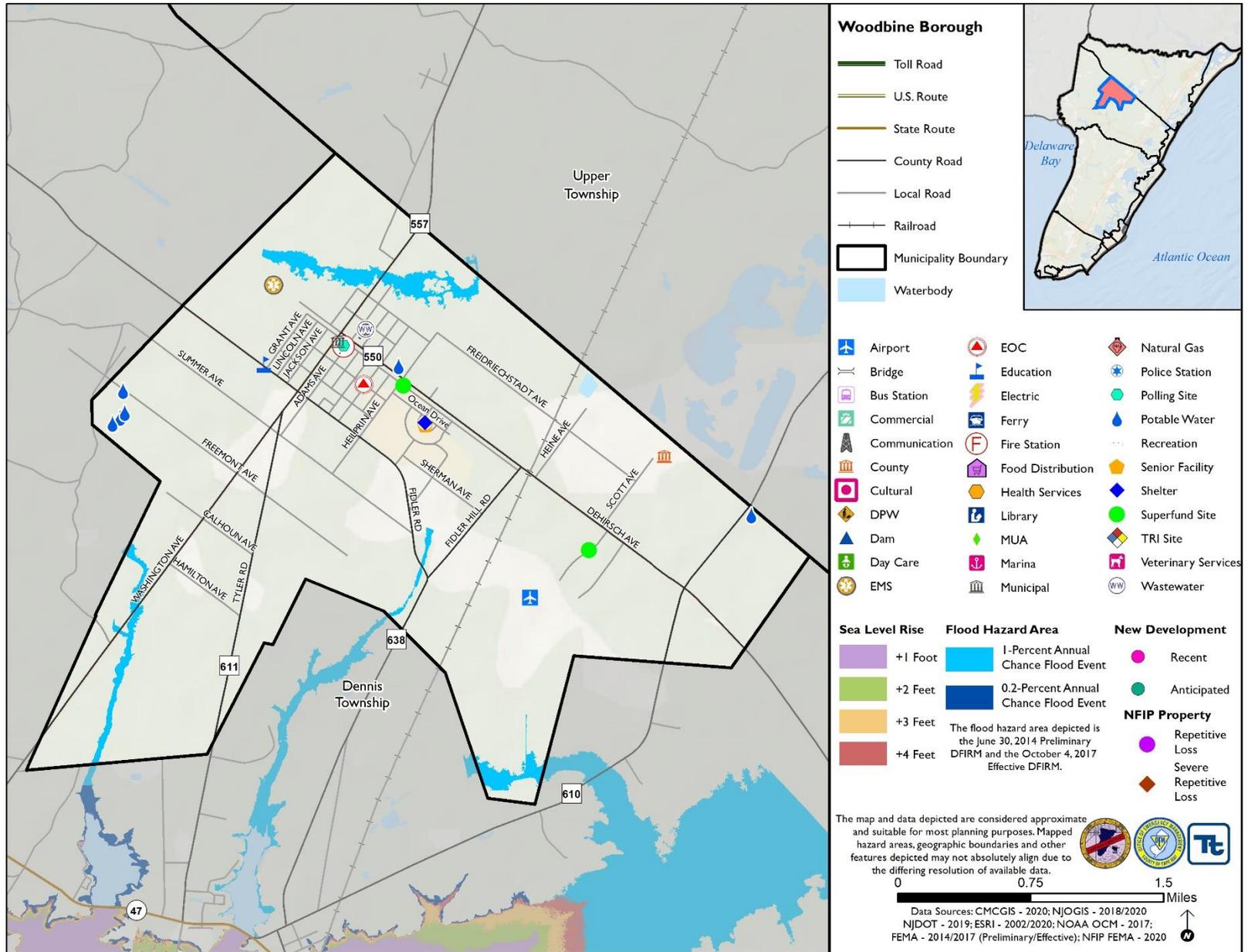




Figure 9.17-2. Borough of Woodbine Hazard Area Extent and Location Map 2

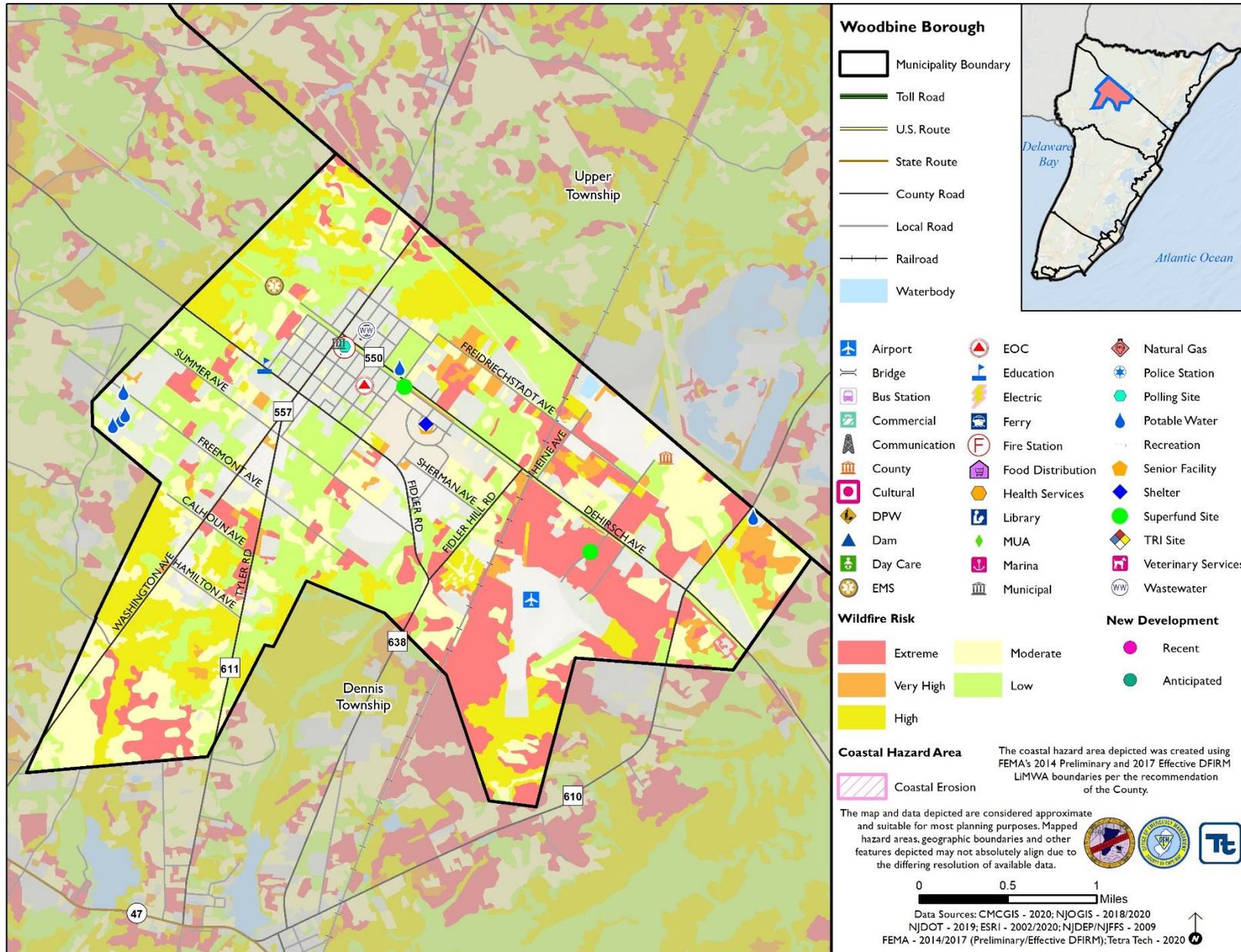
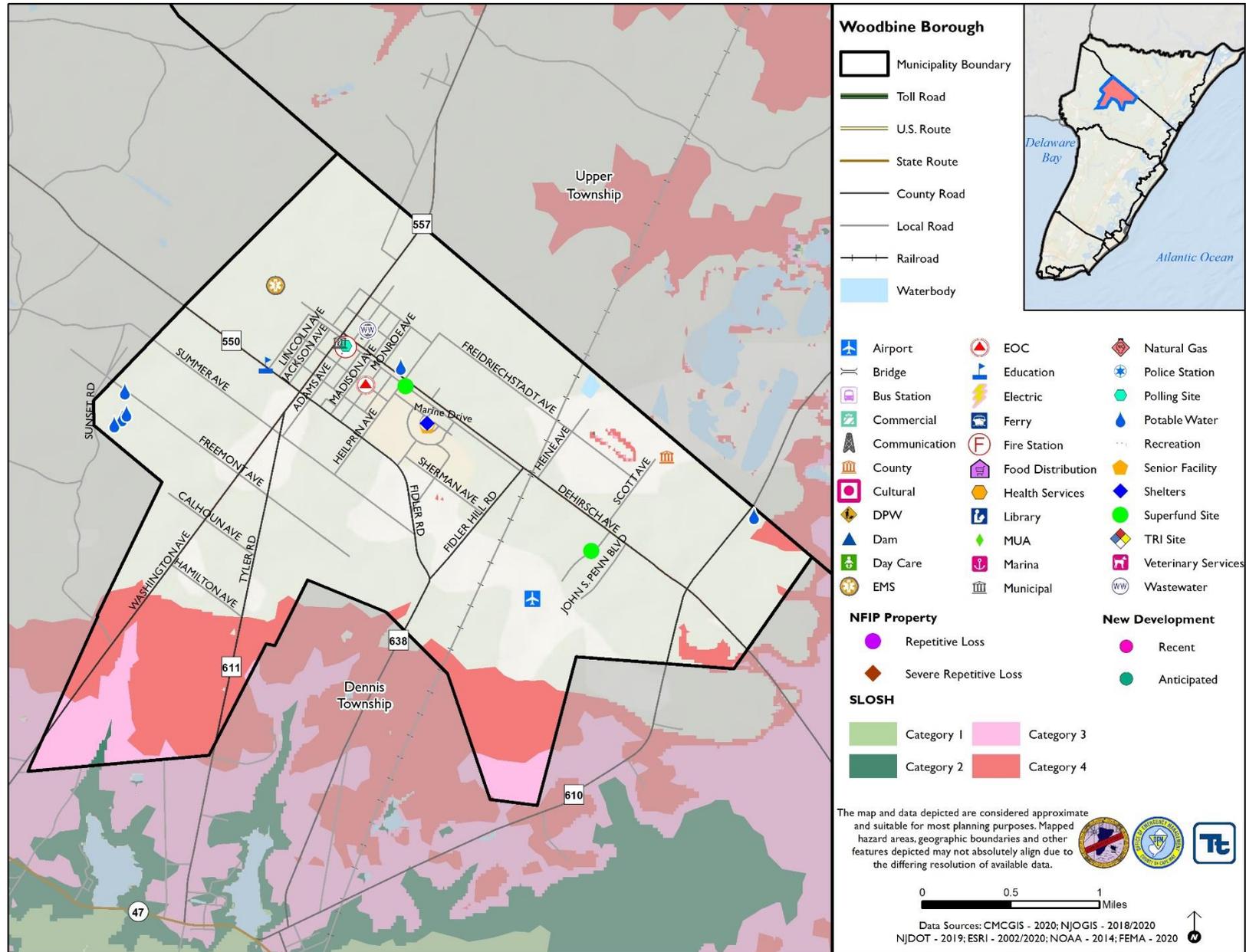




Figure 9.17-3. Borough of Woodbine Hazard Area Extent and Location Map 3





Action Worksheet			
Project Name:	Clay, Heilprin & Webster Stormwater Extension		
Project Number:	2021-Woodbine-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Stormwater flooding impacts a critical facility (Woodbine Developmental Center) and affects various homes in the location.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough Engineer will design the necessary stormwater improvements. The Borough will then complete construction of a one block extension of the existing stormwater pipe.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	TBD by design specifications	Estimated Benefits (losses avoided):	Will provide a risk reduction to protect the critical facility's water main and equipment and prevent flooding of homes in the location
Useful Life:	20 years	Goals Met:	1
Estimated Cost:	High	Mitigation Action Type:	Hazard mitigation, Stormwater management
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGP, BRIC, Borough budget
Responsible Organization:	Borough Engineer	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Enlarge water basin	\$75,000-100,000	Little to no impact
	Change road elevation	\$500,000	Not feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Clay, Heilprin & Webster Stormwater Extension	
Project Number:	2021-Woodbine-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Properties protected from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Borough has the legal authority to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	1 year
Agency Champion	1	Engineer
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Harden Critical Facilities		
Project Number:	2021-Woodbine-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Nor'Easter, Hurricane		
Description of the Problem:	Borough facilities that may be used for sheltering include the school, airport, municipal building, and EOC/ambulance facility. These facilities require retrofit to ensure they are protected from severe weather events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough will retrofit (harden) Borough facilities that may be used to support sheltering and staging operations. Retrofitting will include ensuring buildings are protected from wind and storm damages.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Level of Protection:	500-year storm event	Estimated Benefits (losses avoided):	Ensures continuity of operations
Useful Life:	TBD by feasibility assessment	Goals Met:	1, 3
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Borough Budget
Responsible Organization:	Engineer, Municipal Emergency Manager	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Rebuild facilities to new standards	High	Costly and not necessary
	Build secondary facilities protected to new standards	High	Costly and not necessary
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Harden Critical Facilities	
Project Number:	2021-Woodbine-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Borough facilities
Property Protection	1	Project will protect Borough facilities from storm damage.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Borough has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Severe Winter Weather, Nor'Easter, Hurricane
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Municipal Emergency Manager
Other Community Objectives	1	Protection of critical services
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Backup Power		
Project Number:	2021-Woodbine-005		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter		
Description of the Problem:	Backup power sources are necessary to maintain critical services for critical facilities. The Borough has facilities that lack backup power including the school (ARC-designated shelter), airport, municipal building, EOC/ambulance facility, and water pumping station.		
Action or Project Intended for Implementation			
Description of the Solution:	The Engineer will research what size generator is needed to power each facility. The Borough will then purchase and install the selected generators and necessary electrical components to supply backup power to each facility.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Ensures continuity of operations of critical facilities
Useful Life:	20 years	Goals Met:	1, 3, 4
Estimated Cost:	\$50,000 per generator	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget
Responsible Organization:	Engineer, Municipal Emergency Manager	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Backup Power	
Project Number:	2021-Woodbine-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of critical facilities
Property Protection	1	Project will protect facilities from power loss.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Borough has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Municipal Emergency Manager
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	