



9.13 BOROUGH OF WEST CAPE MAY

This section presents the jurisdictional annex for the Borough of West Cape May. The annex includes a general overview of the Borough of West Cape May; an assessment of the Borough of West Cape May’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.

9.13.1 Staff and Local Stakeholder Involvement in Annex Development

The Borough of West Cape May 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 coronavirus pandemic resulted in a strain on local resources that limited some participation, but every effort was made to connect with staff and stakeholders and gain diverse input. Due to safety precautions, all meetings were held virtually. 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 9.13-1. Hazard Mitigation Planning Team and Contributors

Primary Point of Contact		Alternate Point of Contact
Name / Title: Paul Mulligan, Emergency Management Coordinator Address: 732 Broadway West Cape May, NJ 08204 Phone Number: (732) 770-7186 Email: pjmulligan@comcast.net; oem@westcapemay.us		Name / Title: Suzanne Schumann, Municipal Clerk Address: 732 Broadway West Cape May, NJ 08204 Phone Number: (609) 884-1005x100 Email: sschumann@westcapemay.us
NFIP Floodplain Administrator		
Name / Title: Lou Belasco, Tax Assessor/CRS Coordinator Address: 732 Broadway West Cape May, NJ 08204 Phone Number: (609) 884-1005x103 Email: lbelasco@westcapemay.us		
Name	Title	Method of Participation
Paul Mulligan	Emergency Management Coordinator	Primary point of contact, provided impact information, contributed to mitigation strategy, reviewed draft and provided feedback, signed off on annex
Suzanne Schumann	Municipal Clerk	Alternate point of contact
Lou Belasco	Tax Assessor/CRS Coordinator	NFIP floodplain administrator, reviewed and signed off on annex
Carol Sabo	Mayor/Administrator	Reviewed and signed off on annex
Raymond M. Roberts	Engineer	Reviewed and signed off on annex
Frank Donato III	Fiscal/CFO	Reviewed and signed off on annex
Gregory M. Basile	Department of Public Works	Reviewed and signed off on annex
Anthony Marino	Chief, Police Department	Reviewed and signed off on annex
Sam Basile	Fire Department	Reviewed and signed off on annex

9.13.2 Jurisdiction Profile

West Cape May is a borough at the southern tip of Cape May Peninsula in Cape May County, New Jersey, where the Delaware Bay meets the Atlantic Ocean. It is bounded on the north by the Township of Lower, on the east by the City of Cape May, on the south by the Atlantic Ocean and Delaware Bay, and on the west by the Township





of Lower, Borough of Cape May Point and the Delaware Bay. It is part of the Ocean City Metropolitan Statistical Area.

According to the U.S. Census, the 2010 population for the Borough of West Cape May was 1,026. The estimated 2018 population was 1,103, a 7.5 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.5 percent of the population is 5 years of age or younger and 29.3 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.

9.13.3 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 9.13-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.13-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development.

Table 9.13-2. 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	17	4	10	2	15	6	6	6	12	8
Multi-Family	0	0	0	0	0	0	1	1	1	0
Other (commercial, mixed-use, etc.)	0	0	1	0	3	2	0	0	1	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										
Burgin Lane	Residential	12		Burgin Lane		Category 2, 3, 4 Storm		Complete		
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None anticipated.										

* Only location-specific hazard zones or vulnerabilities identified.

9.13.4 Capability Assessment

The Borough of West Cape May 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 9.13.4). The Borough of West Cape May 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 West Cape May and where hazard mitigation has been integrated.

Table 9.13-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments	Have aspects of this been integrated into your mitigation plan? If no - can it be a mitigation action? If yes, add Mitigation Action #.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<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 Board of Commissioners. It is hereby found and determined that there exists a substantial number of buildings, or parts thereof, within the Borough of West Cape May which are unfit for human habitation, occupancy or use due to their age, dilapidation, defects increasing the risks of fire, accidents or other calamities, lack of ventilation, light or sanitation facilities, or due to other conditions rendering such buildings, or a part thereof, unsafe or unsanitary, or dangerous or detrimental to the health, safety or welfare of the residents of the Borough of West Cape May and that a public necessity exists for the repair, closing or demolition of such buildings. The Borough repealed its original Uniform Construction Code enforcing agency and signed an Interlocal Services Agreement with the City of Cape May for provisions of Construction Code review and inspection services. 					
Zoning Code	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<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 XXVII, adopted by the Board of Commissioners. No building or land may hereafter be used or occupied and no building or other improvement may be erected, enlarged, improved, altered or moved without compliance with the provisions of this Chapter. In order to encourage sustainable green building practices in accordance with U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED), a bonus of additional feet may be added to the maximum floor area ratio for property owners or developers that comply with certain of the LEED standards, set forth in Appendix A, which shall be incorporated into herein by reference. The Ordinance establishes a Preservation District. In the P-Preservation district, a lot, lots, building, buildings, premises or any portion thereof situated within the P-Preservation District Zone may be used by right for the following purposes and only after approval by the New Jersey Department of Environmental Protection and site plan review by the West Cape May Planning Board: Public purpose uses which shall mean use by any governmental entity or any officially created authority or agency thereof having jurisdiction in the Borough of West Cape May: Agricultural uses limited solely to the cultivation and harvesting of naturally occurring agricultural or horticultural products: Water oriented uses such as marinas and boat slips; and Public walkways, boardwalks for the viewing and enjoyment of the natural scenery and wildlife. This Chapter contains limited language with respect to flood protection and stormwater controls. 					



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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. Subdivision, Chapter XXV, adopted by the Board of Commissioners. The purpose of this Chapter shall be to provide rules, regulations and standards to guide land subdivision in the Borough in order to provide for the orderly growth and development of the municipality and to assure and promote the comfort, health, safety, convenience and general welfare of the Borough. This Chapter contains basic design requirements for addressing drainage and concerns, such as, natural features, trees, views, natural terrain and natural drainage lines, shall be preserved when-ever possible in designing any subdivision containing such features, and open waters shall be recognized as community assets, and no storm water runoff or natural drainage water shall be so directed as to overload existing drainage systems or create flooding or the need for additional drainage structures on other private properties or public lands, without proper provisions being made for taking care of these conditions. 					
Stormwater Management	Yes	State & Local	Yes	Yes	-
Comment:					
<ul style="list-style-type: none"> See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8 Stormwater Control, Chapter XXII. Adopted by the Board of Commissioners. In this Chapter, 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. This Chapter establishes minimum stormwater management requirements and controls for "major development." Structural stormwater management measures shall be designed to take into account the existing site conditions, including, for example, environmentally critical areas, wetlands; flood-prone areas; slopes; depth to seasonal high water table; soil type, permeability and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone). 					
Post-Disaster Recovery	No	-	No	-	-
Comment:					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
Comment:					
<ul style="list-style-type: none"> 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. It should be noted that 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	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment:					



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	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments	Have aspects of this been integrated into your mitigation plan? If no - can it be a mitigation action? If yes, add Mitigation Action #.
<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. Site Plan Regulations, Chapter XXIV, adopted by the Board of Commissioners. The purpose of this Chapter is to establish rules, regulations, standards and procedures for the approval of all development in order to: Preserve existing natural resources and give proper consideration to the physical constraints of the land; Ensure logical, safe and aesthetic land development that enhances the function and character of the community; Provide for compliance with appropriate design standards to ensure adequate light and air, context sensitive building arrangements and minimum adverse effect on surrounding property; and Develop proper safeguards to minimize the impact on the environment including but not limited to soil erosion and sedimentation and air and water pollution. This Chapter contains basic standards for addressing flooding, drainage and stormwater. 					
Environmental Protection	Yes	Local	No	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> Basic aspects of environmental protection are most clearly stated in the Code in Zoning, Chapter XXVII. 					
Flood Damage Prevention	Yes	State & Local	Yes	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> 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. Flood Damage Prevention, Chapter XXIII, adopted by the Board of Commissioners. The Board of Commissioners of the Borough of West Cape May of Cape May County, New Jersey does ordain as follows; <ul style="list-style-type: none"> The flood hazard areas of the Borough of West Cape May are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, causes damage in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss. In order to accomplish the purposes of flood protection described in this Chapter the following methods and provisions are proposed: <ul style="list-style-type: none"> Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction; Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; Controlling filling, grading, dredging, and other development which may increase flood damage; and, 					



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				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<ul style="list-style-type: none"> ○ Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. • New construction and substantial improvement of any residential or nonresidential structure located in an A or AE Zone shall have the lowest floor, including basement together with the attendant utilities (including all electrical, heating, ventilating, air-conditioning and other service equipment) and sanitary facilities, elevated at or above the base flood elevation plus one (1) foot. 					
Wellhead Protection	No	-	No	-	-
<i>Comment:</i>					
Emergency Management	No	-	No	-	-
<i>Comment:</i>					
Climate Change	No	-	No	-	-
<i>Comment:</i>					
Disaster Recovery Ordinance	No	-	No	-	-
<i>Comment:</i>					
Disaster Reconstruction Ordinance	No	-	No	-	-
<i>Comment:</i>					
Other	Yes	State & Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • Water, Chapter XIX, adopted by the Board of Commissioners. This Chapter addresses water emergencies in Section 19-5 and states that; There is a shortage of potable water in the southern Cape May County area; and it is estimated that this shortage will worsen in the immediate future due to increased population and increasing salt water intrusion into certain area aquifers. It has been determined that certain uses of water should be regulated in order to help conserve the supply thereof. This section shall apply to all persons obtaining or furnishing water from the water utility operated by the Borough of West Cape May. • On odd-numbered days it shall be unlawful for any person or persons to perform any of the following activities; <ul style="list-style-type: none"> ○ Washing of motor vehicles of any type, boats or structures of any type. ○ The watering of lawns, gardens or ground cover of any type between the hours of 10:00 a.m. and 6:00 p.m. ○ The use of water outside of a structure for any unnecessary purpose except for those uses directly required for human sanitation and cleanliness. 					
Planning Documents					
Comprehensive / Master Plan	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<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. • <u>Comprehensive Master Plan</u>, submitted: December 30, 2005. This Comprehensive Master Plan Update addresses the following Mandatory and Optional Master Plan Elements. <ul style="list-style-type: none"> ○ Mandatory Elements; Statement of Objectives, Principles, Assumptions, Policies & Standards; Land Use Plan Element; and Housing Plan Element ○ Optional Elements; Open Space, Recreation & Conservation Plan Element; and A Historic Preservation Plan Element 					



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<ul style="list-style-type: none"> It is recommended that the Borough undertake the remaining optional Master Plan Elements as funding permits. Borough Policymakers reaffirm their commitment to the 15 Purposes of the Municipal Land Use Law and adopt same as general guidelines for this Comprehensive Master Plan Update, the Land Development Ordinance and for the policies and practices of all appropriate municipal agencies in the administration of their duties and responsibilities. The Plan explains that Measured sea level has risen approximately 15" in the Cape Island region over the past century, and is expected to continue to rise for the foreseeable future. Consequences of this ongoing inundation of Cape Island by the sea include: shoreline erosion and tidal flooding caused primarily by storms; Wider, deeper and saltier streams; Tidal penetration into the interior of Cape Island; and Migration of salt marshes (replacing swamp forests as trees are killed when saltwater inundates their roots). Additionally, saltwater intrusion into the aquifers beneath Cape Island has resulted in the contamination of the groundwater with high levels of sodium. Cape Island's municipal system now gets the majority of its drinking water from a single pocket of fresh groundwater in the Cohansey aquifer.¹⁶New Jersey's only desalination plant was built in 1998 to supplement the water supply from this source. <u>Master Plan Re- Examination Report</u>, October 2015. The Re-Examination looks at major problems and objectives related to land development in the borough of west cape may at the time of the adoption of the last master plan. The Plan contains a number of recommendations that should be considered in the areas of; Infrastructure; Environmental Preservation, Recreation and Open Space; Sustainability Traffic Safety, Circulation and Parking; Economic Development and Growth; Dark Sky; and FEMA. 					
Capital Improvement Plan	Yes	Local	No	Yes	-
Comment:	<ul style="list-style-type: none"> Capital Budget and Capital Improvement Plan, introduced on March 25, 2020. The Plan does not include any current year funding. 				
Disaster Debris Management Plan	No	-	No	-	2021-West Cape May - 008
Comment:					
Floodplain or Watershed Plan	Yes, underway	Local	No	Yes	No
Comment:	The Borough is completing their Watershed Management Plan which will earn points in the CRS program. The plan is being completed by the Stockton Coastal Research Center.				
Stormwater Management Plan	Yes	State & Local	Yes	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. Municipal Stormwater Management Plan, December 2004. This Municipal Stormwater Management Plan (MSWMP) documents the strategy for the Borough of West Cape May to address stormwater-related impacts. The creation of this plan is required by N.J.A.C.7:14A-25 (Municipal Stormwater Regulations). As required, this plan contains all of the required elements described in N.J.A.C.7:8 (Stormwater Management Regulations). The goals of this MSWMP are as follows: Reduce flood damage, including damage to life and property; Minimize, to the extent practical, any increase in stormwater runoff from any new development; Reduce soil erosion from any development or construction project; Assure the adequacy of existing and proposed culverts, bridges and other in-stream structures; Maintain groundwater recharge; Prevent, to the greatest extent feasible, an increase in nonpoint pollution; Maintain the integrity of stream channels for their biological functions, as well as for drainage; Minimize pollutants in stormwater runoff from new and existing development to: restore, enhance and maintain the chemical, physical and biological integrity of the waters of the state, protect public health, safeguard fish and aquatic life and scenic and ecological values, enhance the domestic, municipal, recreational, industrial and other uses of water; and Protect public safety through the proper design and operation of stormwater basins. 				
Stormwater Pollution Prevention Plan	Yes	State & Local	Yes	Yes	-



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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 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. Stormwater Pollution Prevention Plan dated 12-31-18. The Plan includes all of the required forms necessary for annual reporting for the SPPP. 					
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	Yes	Local	No	Yes	-
Comment:					
<ul style="list-style-type: none"> Environmental Resource Inventory dated May, 2018. Assembling an inventory of the Borough's environmental and biological infrastructure is the first step in a proactive and ecological approach to protecting and preserving human and ecological health. The goal of the Environmental Resource Inventory (ERI) is to provide objective, reliable environmental data in one document. This Inventory's information may facilitate resource-sensitive development decisions. In addition, familiarity with environmental concerns enables residents to appreciate and to learn how to maintain our valuable natural resources. The ERI is a comprehensive and useful tool for mitigation planning. 					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	Yes	State & Local	Yes – if located in a coastal zone	Yes	-
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. Coastal Vulnerability Assessment & Getting to Resilience, March 2017. Vulnerability is defined as the degree of exposure and inability of a human or natural system to cope with the effects of a natural hazard, including changing variability and extremes in weather and climate. By assessing vulnerabilities, communities can plan for future exposures and develop strategies for mitigating long-term risk; making communities more resilient. When a CVA is completed, community assets from four general areas are indexed in a matrix and then used to support the development of the mapping, these areas include: Community Resources; Critical Infrastructure and Facilities; Natural Resources; and Vulnerable Sites and Populations. After deliberation, West Cape May's final list of assets consisted of 6 asset locations, the business district, and 4 local evacuation routes. Throughout discussions with municipal officials, the Business District stood out as the most critical asset to the Borough due to its year-round economic and employment value to residents and importance to summer time visitors. 					
Community Wildfire Protection Plan	No	-	No	-	-
Comment:					
Community Forest Management Plan	Yes	State & Local	No	Yes	-
Comment:					
<ul style="list-style-type: none"> Community Forestry Management Plan, December 6, 2018 form January 1, 2018 to December 31, 2022. The plan include the following elements: Training plan ;Public education / awareness / outreach; Tree ordinance establishment; Tree inventory plan; 					



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<i>Tree risk assessment plan; Storm damage assessment related to trees; Tree maintenance and removals; Insect and disease management; Wildfire protection; and Storm water management.</i>					
Transportation Plan	No	-	No	-	-
<i>Comment:</i>					
Agriculture Plan	No	-	No	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> There is no Agriculture Plan, but there is a Right to Farm Ordinance, Chapter XVI. 					
Climate Action Plan	Yes	Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> Getting to Resilience. The Borough completed the GTR online assessment at Borough Hall on January 23rd. The complete list of linkages and recommendations is available upon request. Chosen relevant recommendations are listed below: <ul style="list-style-type: none"> Adopt a Municipal Floodplain Management Plan and Incorporate the Plan into the Municipal Master Plan, Municipal Stormwater Plan, and Hazard Mitigation Plan Adopt an Economic Development Plan or Strategy. 					
Tourism Plan	No	-	No	-	-
<i>Comment:</i>					
Business Development Plan	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> 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. The Borough's CEMP and SOPs were reviewed and updated in 2015. These documents refer to the hazard mitigation plan. 					
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Local	No	No	-
<i>Comment:</i>					
<ul style="list-style-type: none"> A CVA is described under Shoreline Management above. 					
Post-Disaster Recovery Plan	No	-	No	-	-
<i>Comment:</i>					
Continuity of Operations Plan	Yes	Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Borough has a Continuity of Operations plan that will serve to protect the local government and operations from natural hazard disruptions. 					
Public Health Plan	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					



Table 9.13-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Building
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.	Yes

ADMINISTRATIVE AND TECHNICAL CAPABILITY

The table below summarizes potential staff and personnel resources available to the Borough of West Cape May.

Table 9.13-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning/Zoning Board Commissioners
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Environmental Commission
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	WCM Mayor / Clerk and CM police have system access
Maintenance program to reduce risk	Yes	Shade Tree Commission
Mutual aid agreements	Yes	Surrounding municipalities
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Municipal engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Municipal engineer
Planners or engineers with an understanding of natural hazards	Yes	Municipal engineer; Planning Board
Staff with training in benefit/cost analysis	Yes	Municipal engineer
Staff with training in green infrastructure	Yes	Municipal engineer
Staff with education/knowledge/training in low impact development	Yes	Municipal engineer
Surveyor	No	Not on staff/Consultant available
Stormwater engineer	Yes	Municipal engineer
Personnel skilled or trained in GIS applications	No	Utilize County
Local or state water quality professional	Yes	WCM Water / Sewer Utility
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Paul Mulligan, Coordinator
Watershed planner	No	-
Environmental specialist	Yes	Environmental Commission
Grant writers	No	-
Resilience Officer	Yes	Environmental Commission
Other	No	-



FISCAL CAPABILITY

The table below summarizes financial resources available to the Borough of West Cape May.

Table 9.13-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Yes
Other	Yes

EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of West Cape May.

Table 9.13-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes – Mayor
Do you have personnel skilled or trained in website development?	Yes – Clerk
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.	Yes – EC / P & Z
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	The Water Department distributes mailers that include information on reducing natural hazard risk

COMMUNITY CLASSIFICATIONS

The table below summarizes the classifications for community programs available to the Borough of West Cape May.

Table 9.13-8. 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	-	-





Program	Participating?	Classification	Date Classified
Sustainable Jersey	Yes	Bronze	December 12, 2019

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 9.13-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
Climate Change and Sea Level Rise	Strong
Coastal Erosion	Moderate
Disease Outbreak (new)	Moderate
Drought (new)	Moderate
Flood	Strong
Hurricane	Strong
Nor’Easter	Strong
Severe Weather	Strong
Severe Winter Weather	Strong
Tsunami	Moderate
Wildfire	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 has access to resources to determine the possible impacts of climate change upon the municipality. At this time, the administration is not in the process of integrating climate change in policies or actions.

NATIONAL FLOOD INSURANCE PROGRAM

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

Table 9.13-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Tax Assessor/CRS Coordinator
Who is your floodplain administrator? (name, department/position)	Lou Belasco, Tax Assessor/CRS Coordinator
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date that your flood damage prevention ordinance was last amended?	2016
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Meets standards
When was the most recent Community Assistance Visit or Community Assistance Contact?	August 7, 2019
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.	Yes, FIRM update in progress





Criterion	Response
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?	The floodplain administrator is currently adequately trained for floodplain management responsibilities, although additional training would be welcome.
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?*	344 policies
-What is the insurance in force? -What is the premium in force?	
How many total loss claims have been filed in your jurisdiction?*	99 claims
-How many claims are still open or were closed without payment? -What were the total payments for losses?	\$2,298 in payments
Do you maintain a list of properties that have been damaged by flooding?	Yes
Do you maintain a list of property owners interested in flood mitigation?	Yes

*According to FEMA statistics as of October 2020

ADDITIONAL AREAS OF EXISTING INTEGRATION

- **Land Use Planning:** The Planning and Zoning boards use design and stormwater management requirements to guide their decisions. The Borough has a municipal planner who reviews subdivision and site plan applications. Developers are required to take additional actions to guide their decisions with respect to natural hazard risk management.
- **Floodplain Management:** NFIP Floodplain Management issues are performed by the Floodplain Administrator, Donald Arndt who is the Construction Code Official.
- **Vegetation Maintenance:** The Borough’s Shade Tree Commission is working with utilities to develop and implement an improved tree maintenance program (updated mitigation strategy – WCM-11).
- **Other Boards and Committees:** The Board of Commissioners and Environmental Committee both have functions with respect to managing natural hazard risk.
- **Technical Resources:** Staff are trained to perform substantial damage estimates and have experience in preparing grant applications for mitigation projects.
- The Borough Emergency Management Coordinators and Deputies have job descriptions that specifically include identifying and/or implementing mitigation projects.
- Borough staff receive training and continuing education to support natural hazard risk reduction, such as through the New Jersey League of Municipalities. Additional training regarding opportunities for grants and grant writing would be beneficial.
- **Sustainable Jersey:** The Borough is a bronze certified community in the Sustainable Jersey program. The Borough has earned points toward certification through creation of a Green Team, community partnership and outreach, having a wind ordinance, having public electric vehicle charging infrastructure, hosting a farmers market, taking a sustainable land use pledge, undertaking a natural resource inventory, having an environmental commission, having a water conservation education program, adopting a tree protection ordinance, development of the Borough’s Community Forestry Management Plan, tree planting programs, recycling programs, the digitizing of public information, prescription drug safety and disposal, holding a paper shredding day, and establishing a recycling depot.





9.13.5 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 West Cape May’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 9.13-11 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 9.13-11. 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 23, 2016	Winter Storm Jonas	DR-4264	Coastal storm with major coastal flooding and high winds.	The Borough experienced minor storm damages.
July 10, 2020	Tropical Storm Fay	No	Tropical Storm with moderate flooding and high winds.	The Borough experienced minor storm damages.
January 20, 2020-continuing	Covid-19 Pandemic	DR-4488, EM-3451	The coronavirus pandemic resulted in hospitalizations, death.	The Borough was impacted by required business and school closures and mask/social distancing requirements.
August 4, 2020	Tropical Storm Isaias	Pending	Tropical Storm with high winds.	The Borough experienced minor storm damages.

Source: NOAA NCEI 2020, FEMA 2020

9.13.6 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 West Cape May 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 West Cape May.

- Number of repetitive loss (RL) properties: 14
- Number of severe repetitive loss (SRL) properties: 1
- Number of RL/SRL properties that have been mitigated: 1

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 9.13-12. Potential Flood Losses to Critical Facilities and Lifelines

Name	Type	Exposure	
		1% Event	0.2% Event
Elmira Street Bridge	Bridge	X	X
WEST CAPE MAY ELEMENTARY	Education		X
CVS	Health Services	X	X





Name	Type	Exposure	
		1% Event	0.2% Event
Exit Zero Filling Station	Natural Gas Facility	X	X

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

Note:

*Identified lifeline

IDENTIFIED ISSUES

The jurisdiction has identified the following vulnerabilities within their community:

- The Borough has 14 remaining unmitigated repetitive loss properties and 1 severe repetitive loss property.
- The Cape Island Creek tunnel backup causes the Borough to flood.
- Local schools require retrofitting to protect against hazard damages.
- City Hall’s construction is outdated and leaves the building exposed to potential storm damages and impacts that would limit continuity of operations.
- Falling trees and tree branches can result in utility failure and property damages.
- CR-606 (Sunset Boulevard) through the South Cape May Meadows (Lower and WCM) are low lying and experience flooding. The roadway is county owned.
- West Cape May lacks a Stormwater Master Plan.
- The Borough lacks a Disaster Debris Management Plan.

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Borough of West Cape May 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 West Cape May has significant exposure. A map of the Borough of West Cape May 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 West Cape May. The Borough of West Cape May 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 9.13-13. Borough of West Cape May Hazard Ranking Input

Climate Change and Sea Level Rise	Coastal Erosion	Disease Outbreak (new)	Drought (new)	Flood	Hurricane
High	Medium	Medium	Medium	High	High
Nor'Easter	Severe Weather	Severe Winter Weather	Tsunami	Wildfire	
High	High	High	Low	Medium	

9.13.7 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 9.13-14. Status of Previous HMP Mitigation Actions

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 #
WCM-1a	Property Mitigation Support – Retrofit: Where appropriate, support retrofitting (e.g. elevation) 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	In Progress	X	2021-West Cape May-001
WCM-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	In Progress	X	2021-West Cape May-001
WCM-2	Continue to evaluate the cost-effectiveness of participation in the incentive-based CRS program.	Borough	Ongoing Capability		
WCM-3	The zoning ordinances and master plan are under review and will be updated within the next 12 months.	Municipal Emergency Manager with support from County OEM and NJOEM	Complete		





Table 9.13-14. Status of Previous HMP Mitigation Actions

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 #
WCM-4	Create/enhance/ maintain mutual aid agreements with neighboring communities.	Borough	Ongoing Capability		
WCM-5	Support County-wide initiatives identified in Section 9.1 of the County Annex.	Local departments (as applicable for specific initiative)	Ongoing Capability		
WCM-6	Retrofit school to reduce vulnerability to natural hazards, including wind-resistant glazing and addition of backup power.	School Board with assistance from local departments	In Progress	X	2021-West Cape May - 003
WCM-7	Retrofit City Hall to reduce vulnerability to natural hazards, including wind-resistant glazing, improved communications system, and emergency lighting. Backup generator installed was in 2015.	Engineering Department with support from Emergency Management	No Progress	X	2021-West Cape May - 004
WCM-8	Work with Shade Tree Commission and utilities to develop and implement an improved tree maintenance program	County Engineering with support from Shade Tree Commission and electric utility (AC Electric)	In Progress	X	2021-West Cape May - 005
WCM-9	Elevate ~1.5 miles of CR-606 (Sunset Boulevard) through the South Cape May Meadows (Lower and WCM).	County Engineering with municipal support	In Progress, County responsibility	X	2021-West Cape May - 006
WCM-10	Develop a Stormwater Master Plan for West Cape May.	County Engineering/ Planning with municipal support	In Progress, County responsibility	X	2021-West Cape May - 007
WCM-11	Purchase and installation of an emergency generator for pump station power outages. (USDA FY 2008 Water & Sewer Replacement Project)	Engineering with USDA	Complete		
WCM-12	Work directly with residents of the community located in a mixed interface next to phragmites to become a National Fire Protection Association (NFPA) "Firewise" community.	Local Fire Chiefs working with County Fire Coordinator	Ongoing Capability		

In addition to the above progress, the Borough of West Cape May identified the following mitigation projects/activities that were completed but not identified in the 2016 HMP mitigation strategy:

- None identified





PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Borough of West Cape May 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 West Cape May 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 9.13-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of West Cape May 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 9.13-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.13-15. 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-West Cape May-001	Repetitive Loss Mitigation	<p>Problem: The Borough has 14 remaining unmitigated repetitive loss properties and 1 severe repetitive loss property.</p> <p>Solution: The Borough will conduct outreach to RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	Existing	Flood, Severe Weather	1	NFIP Floodplain Administrator, supported by homeowners	FEMA HMGP and FMA, BRIC, local cost share by residents	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	\$2M	Within 5 years	High	SIP	PP
2021-West Cape May-002	Cape Island Creek Tunnel Pump Station	<p>Problem: The Cape Island Creek tunnel causes the Borough to flood.</p> <p>Solution: The Borough will construct a pump station to address flooding at the Cape Island Creek tunnel. The pump station will be protected to the 500-year flood level and will have a backup power generator on site.</p>	New	Flood, Severe Weather	1	Engineer, Public Works	HMGP, BRIC, Borough budget	Reduction in flooding near Cape Island Creek tunnel	\$3M	Within 2 years	High	SIP	SP
2021-West Cape May-003	Support School Retrofits	<p>Problem: Local schools require retrofitting to protect against hazard damages.</p> <p>Solution: The Borough will provide support in the form of expertise and guidance as the schools work to retrofit school buildings to reduce vulnerability to natural hazards, including wind-resistant glazing and addition of backup power.</p>	Existing	Severe Weather, Severe Winter Weather, Nor' Easter, Hurricane, Climate Change	2	School Board with assistance from local departments	School budgets	Schools protected from storm damages	Municipal staff time	Within 1 year	High	EAP	PI
2021-West Cape May-004	City Hall Retrofit	<p>Problem: City Hall's construction is outdated and leaves the building exposed to potential storm damages and impacts that would limit continuity of operations.</p>	Existing	Severe Weather, Severe Winter Weather,	1, 3	Engineering Department with support from	FEMA HMGP, BRIC, USDA Community	Ensures continuity of operations of City Hall	Medium	Within 5 years	High	SIP	PP





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
		Solution: Retrofit City Hall to reduce vulnerability to natural hazards, including wind-resistant glazing, improved communications system, and emergency lighting.		Nor'Easter, Hurricane, Climate Change		Emergency Management	Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Borough Budget						
2021-West Cape May-005	Tree Maintenance Program	Problem: Falling trees and tree branches can result in utility failure and property damages. Solution: Work with Shade Tree Commission and utilities to develop and implement an improved tree maintenance program in conjunction with the electric utility (AC Electric).	N/A	Severe Weather, Severe Winter Weather, Nor'Easter, Hurricane, Climate Change	5	County Engineering with support from Shade Tree Commission and electric utility (AC Electric)	County budget, Municipal budget, Utilities budget	Reduction in tree damages and power failure	Low	Within 2 years	High	NSP	NR
2021-West Cape May-006	Sunset Boulevard Elevation Support	Problem: CR-606 (Sunset Boulevard) through the South Cape May Meadows (Lower and WCM) are low lying and experience flooding. The roadway is county owned. Solution: The Borough will support the County in the elevation of ~1.5 miles of CR-606 (Sunset Boulevard) through the South Cape May Meadows (Lower and WCM).	Existing	Climate Change, Flood	1	County Engineering, Administration	County budget, Municipal budget	Reduction in flooding, maintained emergency access	Staff time	Within 1 year	High	EAP	PI
2021-West Cape May-007	Stormwater Master Plan for West Cape May	Problem: West Cape May lacks a Stormwater Master Plan. Solution: The Borough will work with Cape May County Engineering and Planning to develop a Stormwater Master Plan.	Existing and New	Flood, Severe Weather	1, 3	County Engineering/ Planning with municipal support	County budget, Municipal budget	Stormwater Master Plan established	Staff time	Within 5 years	High	LPR	PR
2021-West Cape May-008	Disaster Debris Management Plan	Problem: The Borough lacks a Disaster Debris Management Plan. Solution: The Borough will develop a Disaster Debris Management Plan.	Existing	All Hazards	4	Public Works and Emergency Management	Municipal budget	Increased disaster response capabilities	Staff time	1 year	High	LPR	ES

Notes:





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
BRIC	Building Resilient Infrastructure and Communities Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

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 9.13-16. 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-West Cape May-001	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021-West Cape May-002	Cape Island Creek Tunnel Pump Station	0	1	1	1	0	1	0	1	1	1	1	1	1	1	11	High
2021-West Cape May-003	Support School Retrofits	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-West Cape May-004	City Hall Retrofit	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021-West Cape May-005	Tree Maintenance Program	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-West Cape May-006	Sunset Boulevard Elevation Support	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-West Cape May-007	Stormwater Master Plan for West Cape May	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021-West Cape May-008	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High

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

This action has been identified as being of highest importance to the municipality and an action that the municipality would like to complete as soon as funding is received.



Table 9.13-17. 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		X	X	X			X	X
Coastal Erosion								
Disease Outbreak (new)								
Drought (new)								
Flood		X				X		
Hurricane		X	X	X			X	X
Nor' Easter		X	X	X			X	X
Severe Weather		X	X	X		X	X	X
Severe Winter Weather		X	X	X			X	X
Tsunami								
Wildfire								

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



Figure 9.13-1. Borough of West Cape May Hazard Area Extent and Location Map 1

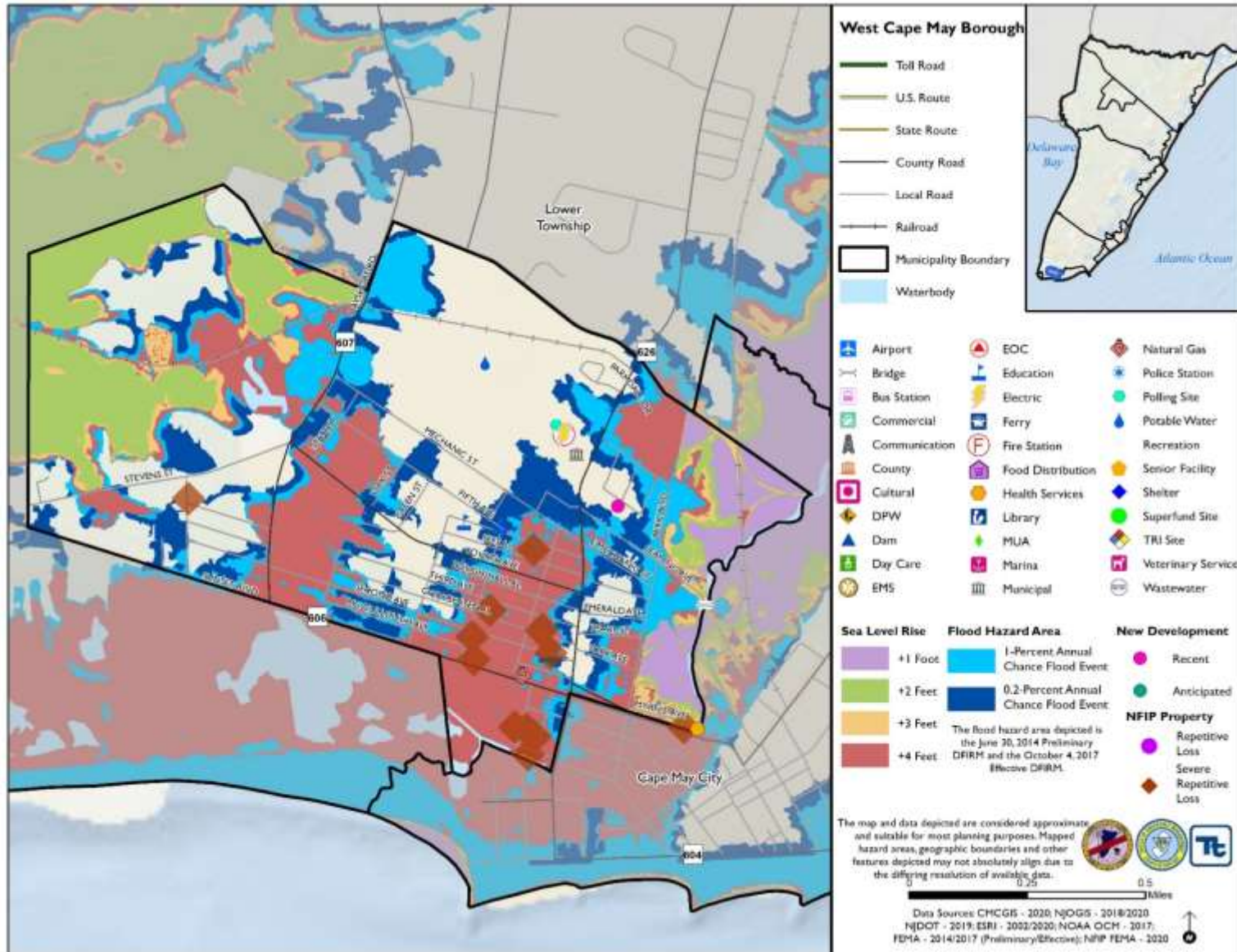




Figure 9.13-2. Borough of West Cape May Hazard Area Extent and Location Map 2

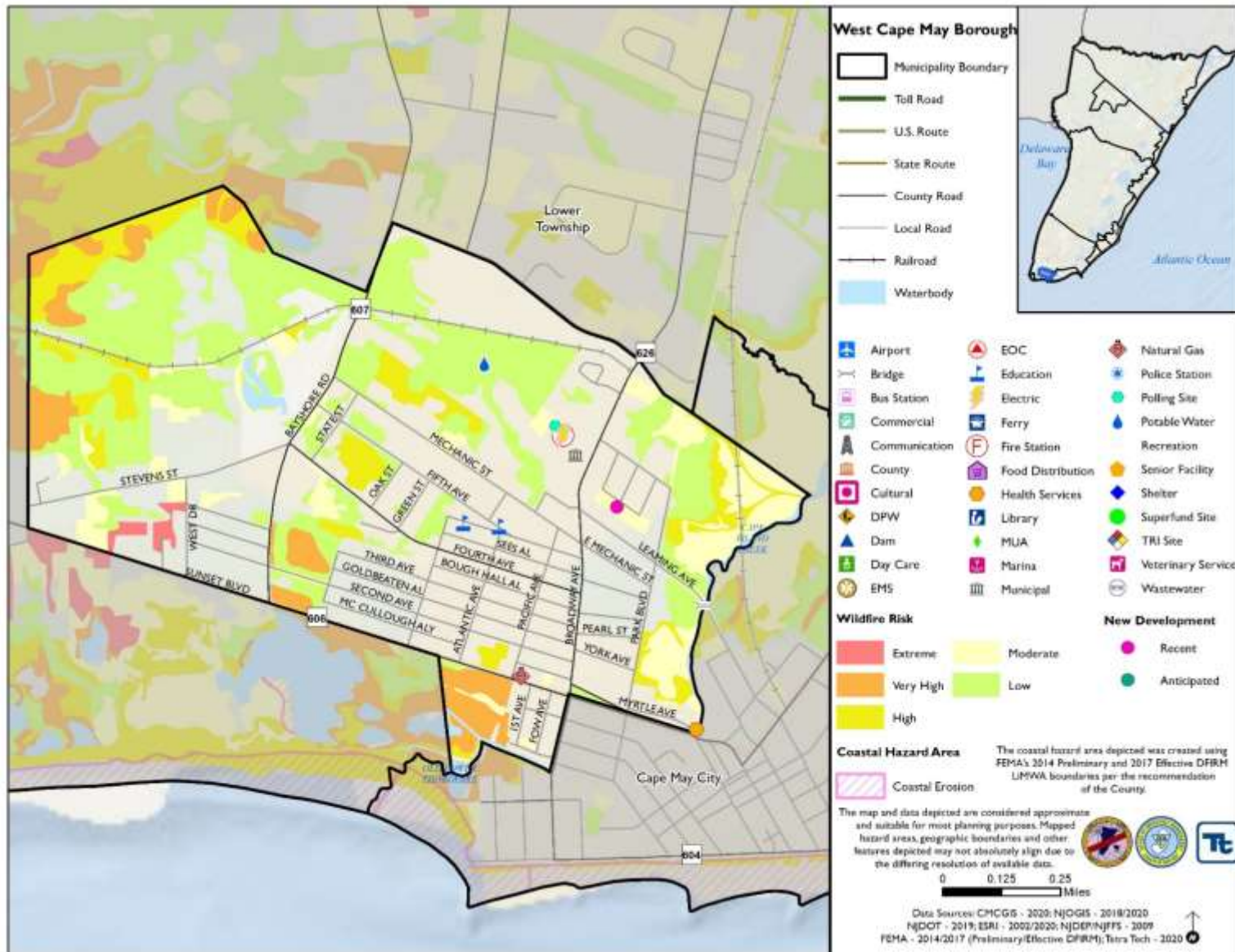
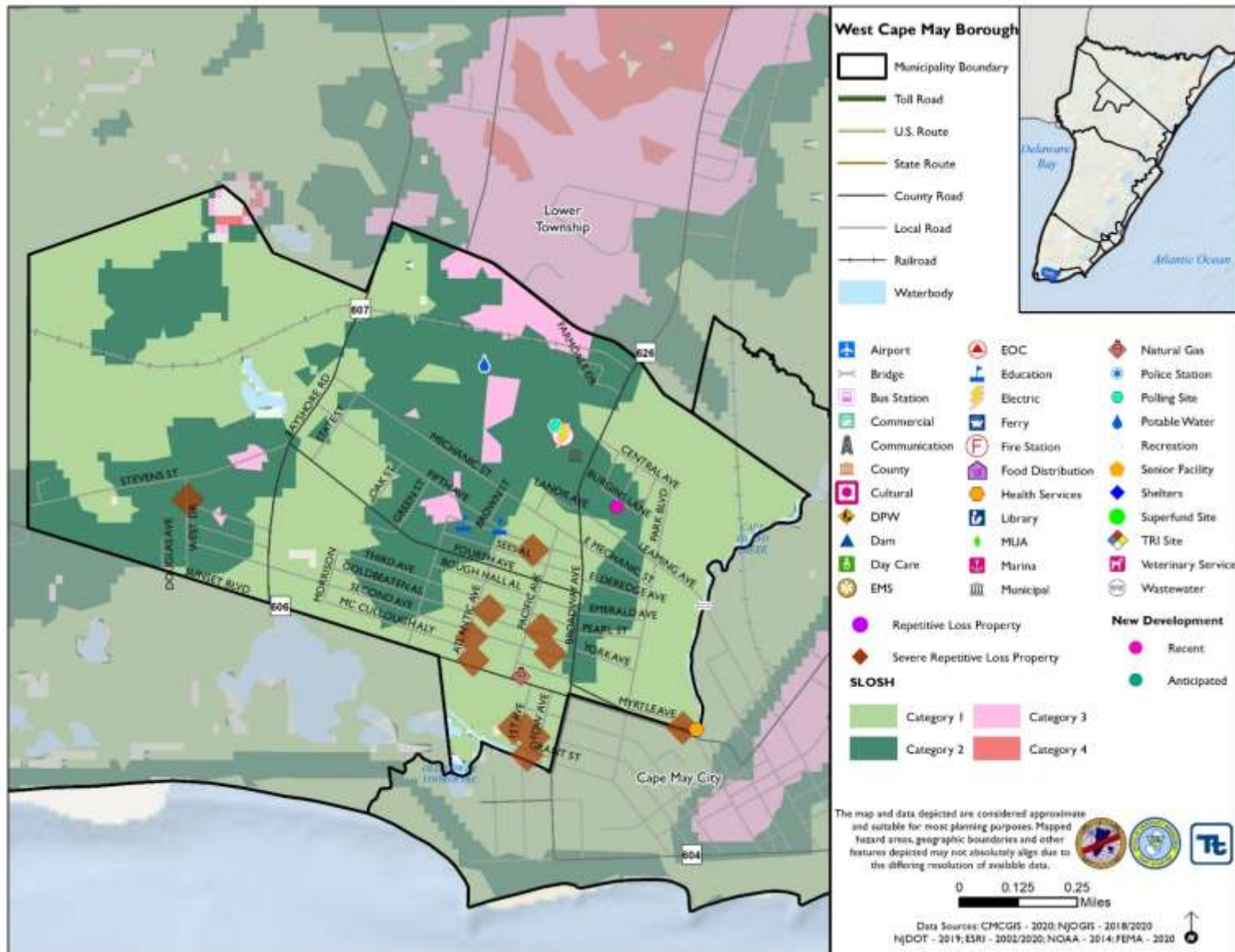




Figure 9.13-3. Borough of West Cape May Hazard Area Extent and Location Map 3





Action Worksheet			
Project Name:	Repetitive Loss Mitigation		
Project Number:	2021-West Cape May-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	The Borough has 14 remaining unmitigated repetitive loss properties and 1 severe repetitive loss property.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough will conduct outreach to RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	1% annual chance flood event + freeboard (<i>in accordance with flood ordinance</i>)	Estimated Benefits (losses avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	1
Estimated Cost:	\$2 Million	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6-12 months
Estimated Time Required for Project Implementation:	Three years	Potential Funding Sources:	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
	Elevate roads	\$500,000	Elevated roadways would not protect the homes from flood damages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Repetitive Loss Mitigation	
Project Number:	2021-West Cape May-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Borough has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the Borough.
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Cape Island Creek Tunnel Pump Station		
Project Number:	2021-West Cape May-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	The Cape Island Creek tunnel causes the Borough to flood.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough will construct a pump station to address flooding at the Cape Island Creek tunnel. The pump station will be protected to the 500-year flood level and will have a backup power generator on site.		
Is this project related to a Critical Facility?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	500-year flood level	Estimated Benefits (losses avoided):	Reduction in flooding near Cape Island Creek tunnel
Useful Life:	50 years	Goals Met:	1
Estimated Cost:	\$3 million	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 2 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, Borough budget
Responsible Organization:	Engineer, Public Works	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	Problem continues.
	Raise roadways in the area	\$250,000	Flooding likely to impact property owners
	Elevate homes in the area	\$3 million	Costly and roadways still flood
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Evaluation and Prioritization		
Project Name:	Cape Island Creek Tunnel Pump Station	
Project Number:	2021-West Cape May-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect properties in the area from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	0	
Legal	1	The Borough is legally able to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Flood
Timeline	1	2 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	City Hall Retrofit		
Project Number:	2021-West Cape May-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Nor'Easter, Hurricane, Climate Change		
Description of the Problem:	City Hall's construction is outdated and leaves the building exposed to potential storm damages and impacts that would limit continuity of operations.		
Action or Project Intended for Implementation			
Description of the Solution:	Retrofit City Hall to reduce vulnerability to natural hazards, including wind-resistant glazing, improved communications system, and emergency lighting.		
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 of City Hall
Useful Life:	TBD by feasibility assessment	Goals Met:	1, 3
Estimated Cost:	Medium	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:	Engineering Department with support from Emergency Management	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 facility to new standards	High	Costly and not necessary
	Build secondary facility 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:	City Hall Retrofit	
Project Number:	2021-West Cape May-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of City Hall
Property Protection	1	Project will protect City Hall 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, Climate Change
Timeline	0	Within 5 years
Agency Champion	1	Engineering Department with support from Emergency Management
Other Community Objectives	1	Protection of critical services
Total	12	
Priority (High/Med/Low)	High	