

9.5 TOWNSHIP OF DENNIS

This section presents the jurisdictional annex for the Township of Dennis. The annex includes a general overview of the Township of Dennis; an assessment of the Township of Dennis'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.

9.5.1 Staff and Local Stakeholder Involvement in Annex Development

The Township of Dennis 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 9.5-1. Hazard Mitigation Planning Team and Contributors

Primary Point of Contact	Alternate Point of Contact
Name / Title: John Berg, Emergency Management	Name / Title: Jessica Bishop, Administrator
Coordinator	Address: 571 Petersburg Road, P.O. Box 204, Dennisville,
Address: 571 Petersburg Road, P.O. Box 204, Dennisville,	NJ 08214
NJ 08214	Phone Number: (609) 861-9700x225
Phone Number: (609) 231-8129	Email: jbishop@dennistwp.org
Email: grandpopjb@gmail.com	
NFIP Floodplain Administrator	

Name / Title: Michael Morano, Construction Official

Address: 571 Petersburg Road, P.O. Box 204, Dennisville, NJ 08214

Phone Number: (609) 861-9705 Email: eileen@dennistwp.org

Name	Title	Method of Participation
John Berg, Emergency Management Coordinator	John Berg, Emergency Management Coordinator	Primary point of contact, provided data and impact information, contributed to mitigation strategy, reviewed and signed off on annex
Jessica Bishop	Administrator	Alternate point of contact, provided data and impact information, reviewed and signed off on annex
Michael Morano	Construction Official	NFIP Floodplain Administrator, provided data and impact information
John C. Gibson, P.E.	Engineer	Reviewed and signed off on annex
Will Neely	Chief, Fire Department	Reviewed and signed off on annex

9.5.2 Jurisdiction Profile

The Township of Dennis is located within the northern section of Cape May County, New Jersey. It is bounded on the north by the Borough of Woodbine and Township of Upper, on the east by portions of the





Township of Upper, the City of Sea Isle City and the Atlantic Ocean, on the south by the Township of Middle, and on the west by Cumberland County, New Jersey and the Delaware Bay. It is part of the Ocean City Metropolitan Statistical Area. The township included the Dennis Creek community, the East and West Creek regions, the Southern portion of the Cedar Swamp, and the Seashore region between Townsend Inlet and Ludlam's Bay. Today Dennis Township includes the communities of Belleplain, Clermont, Dennisville, Eldora, Ocean View, South Dennis and South Seaville.

According to the U.S. Census, the 2010 population for the Township of Dennis was 6,467. The estimated 2018 population was 6,244, a 3.4 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.6 percent of the population is 5 years of age or younger and 19.9 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.

9.5.3 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 9.5-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.5-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development.

Table 9.5-2. Recent and Expected Future Development

Type of Development	20	15	20	16	20	017	20	18	20	19
Numbe	r of Build	ding Perm	its for Ne	w Constru	iction Issi	ued Since	the Previo	ous HMP		
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	9	N/A	10	N/A	11	N/A	7	N/A	7	N/A
Multi-Family	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Other (commercial, mixed-use, etc.)	0	N/A	0	N/A	2	N/A	1	N/A	4	N/A
Property or Development Name	(/pe of opment	(ad # of Units / and/o		Location (address and/or block Known Hazard and lot) Zone(s)*			Description / Status of Development		
R	ecent Ma	jor Develo	pment ar	d Infrastr	ructure fr	om 2015 t	o Present			
			N	one identi	fied					
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
Hawks Ridge	Resid	lential	1	.9		21, Lots 21.02, 22	No	one		ruction nning

^{*} Only location-specific hazard zones or vulnerabilities identified.

The Township does not have the capability to identify the number of permits that have been issued within the SFHA

9.5.4 Capability Assessment

The Township of Dennis 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 dayto-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 9.5.4). The Township of Dennis 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 Township of Dennis and where hazard mitigation has been integrated.

Table 9.5-3. Planning, Legal and Regulatory Capability

Codes, Ordinances, & Requirements	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	integrated	s of this been l into your on plan? If no - can it be a mitigation action? If yes, add Mitigation Action #.		
Building Code	Yes	State & Local	Yes	No	No		
Comment: 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) Construction Code, Uniform, Chapter 80, adopted the Township Committee, 3-14-1977 & subsequently revised. There is hereby established in the Township of Dennis a State Uniform Construction Code enforcing agency to be known as the "Department of Construction Inspection," consisting of a Construction Official, a Building Subcode Official, a Plumbing Subcode Official, an Electrical Subcode Official, a Fire Protection Subcode Official. The Construction Official shall be the chief administrator of the							
enforcing agency. Zoning Code Comment:	Yes	State & local	Yes – if municipality has a Planning Board	Yes	-		

- 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 185, adopted by the Township Committee, August 12, 1996 with subsequent amendments. The purpose of this chapter is to establish a pattern for the use of land and buildings in the Township of Dennis, based on the latest updated Master Plan for the Township of Dennis and enacted in order to promote and to protect the public health, safety, comfort, convenience, and general welfare of the people.
- More specific goals of this Chapter are to protect against hazards; conserve the taxable value of land and preserve open space and natural features; promote orderly development of the Pinelands Area so as to preserve and protect the significant and unique





				integrated	s of this been d into your
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments	on plan? If no - can it be a mitigation action? If yes, add Mitigation Action #.
natural, ecological, agricultural, arch implement the goals and objectives of				ces of the Pinela	nds; and
 This Chapter encourages clustering as conservation areas and floodplains by 	permitting the redu	ction of lot sizes and c		•	
increasing the number of lots in the to	tal area to be develo	ped.			
Subdivisions	Yes	State, County & Local	Yes – if municipality has a Planning Board	Yes	-
• P.L.1975, c.291 (C.40:55D-47): 40:55 The governing body may by ordinance the filing of such plats with the county	require approval of	subdivision plats by r	esolution of the pl	anning board as	a condition for

- 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 of Land, Chapter 165, adopted by the Township Committee, 8-28-1975 & amended 7-15 2013. The purpose of this chapter shall be to provide rules, regulations and standards to guide land subdivision in the Township of Dennis and to implement the goals and objectives of the Pinelands Comprehensive Management Plan. It shall be ad-ministered to ensure orderly growth and development, the conservation, protection and proper use of land and adequate provisions for circulation, utilities and services in order to assure and promote the comfort, health, safety, convenience and general welfare of the municipality.
- Since areas of the Township are in the Pinelands, a certificate of filing of an application for minor or major development is required from the Pinelands Commission issued pursuant to N.J.A.C. 7:50-4.34 or, until January 14, 1991, evidence of prior approval from the Pinelands When prior approval for the development has been granted by an approval agency, evidence of Pinelands Commission review pursuant to § 185-49E of Chapter 185, Zoning. Development Review Board or the Pinelands Commission pursuant to the Interim Rules and Regulations

Stormwater Management Yes State & Local Yes Yes -

Comment:

- See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8
- Stormwater Control, Chapter 163, adopted by the Township Committee, 04-04-2006 and updated 9/2020. As required by 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.
- Stormwater management measures shall avoid adverse impacts of concentrated flow on habitat for threatened and endangered species as documented in the Department Landscape Project or Natural Heritage Database established under N.J.S.A. 13:1B-15.147 through 15.150, particularly Helonias bullata (swamp pink) and/or Clemmys muhlnebergi (bog turtle).
- To the maximum extent practicable, the standards in Section 163-4F. and G. shall be met by incorporating nonstructural stormwater management strategies set forth at Section 163-4E. into the design.
- A written and graphic description of the natural and manmade features of the site and its environs is required. This description
 should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. It should be noted that the
 regulations vary according to a development's location with respect to the Pinelands.
- The Township also has Storm Drains, Chapters 162A & B to address stormwater.
- The Township works to minimize off-site storm water runoff by encouraging the use of best management practices which protect the character of the natural drainage systems.

Post-Disaster Recovery	No	-	No	-	-
Comment:					
Real Estate Disclosure	Yes	State, Division of	Yes	No	-
		Consumer Affairs			



Tuble 715 61 Flamming, Begar and Regar	J P	-7			
				integrated	s of this been l into your on plan? If no - can it
	Do you have	Authority that enforces (Federal, State,		If yes- how?	be a mitigation action? If yes, add
	this? (Yes/No)	Regional, County, Local)	Is this State Mandated?	Describe in comments	Mitigation Action #.
Comment: N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the land police, as well as any hazards, risks or nuisance. Section 105-1.3 of the Township's Floor	nmission. The PO type of title and ov es in or around th d Damage Prevent	S provides information vnership interest being te subdivision. tion Ordinance 'Statem	such as estimated offered, its proxin	l completion date nity to hospitals,	s for schools, fire
potential buyers are notified that proper Growth Management	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
Comment:					
 State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make Since areas of the Township are in the F Plan shall be administered to ensure or This is a form of a Growth Management Flood Plan is included in the site plan a 	lineation of Grow is the Plan Endors Pinelands District, derly growth and a i, in addition to tra	th Areas and Environs; ement process a growti the goals and objective development and the co uditional Zoning.	Use of the endors h management str es of the Pineland nservation, protec	sed plans in the it ategy. s Comprehensive	nplementation Management
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board of all subdivisions of land within the county road or drainage facilities as set boards shall have a complete file of the shall file with the county planning board date of this act and shall notify the count which affects lands adjoining county ro proposed facilities or public lands show county planning board at least 10 days proficial notice of the public hearing toge Site plan review is conducted by the Alte	l of freeholders of unty by said count forth and limited planning and zonid a copy of the pla ty planning board ads or other county n on the county no prior to the public ther with a copy of	any county having a co ty planning board and J hereinafter in this sect ng ordinances of all mi nning and zoning ordin of the introduction of ty lands, or lands lying taster plan or official co hearing thereon by per	ounty planning boo for the approval o ion. 40:27-6.10 In unicipalities in the ances of the muni any revision or an within 200 feet of ounty map. Such rsonal delivery or	ard shall provide f those subdivision order that count county, each mu- icipality in effect mendment of such a municipal bou notice shall be gi	of or the review ons affecting ty planning unicipal clerk on the effective an ordinance undary, or ven to the
Environmental Protection	Yes	Local	No	Yes	-
Comment: • Environmental Protection is carried out • Environmental Commission, Chapter 17 specific environmental protection standa including; • It shall keep an index of all open a in order to obtain information on t Land Use Board plans and prograt areas. • The Commission shall review each • The Commission may study and ma air pollution control, solid waste m marine resources and protection of • The Commission may, subject to th name of the township by gift, purch	I, adopted by the Tards, it does createres, publicly or phe proper use of some for inclusion in application and make recommendation agement, noise of flora and fauna.	Township Committee, 0.e an Environmental Co- rivately owned, includi- uch areas, and it may fi the Township Master I may provide its advice to ons concerning open sp control, soil and lands	mmission, having ng open marshlan rom time to time r Plan and for the d o the Consolidate bace preservation, cape protection, e acquire property, i	certain powers and a commend to the commend to the levelopment and to dand Use Boar water resources environmental appose the control of the c	nd duties, other wetlands, Consolidated use of such d. management, pearance, sonal, in the
for such purposes subject to the ter	ms of the conveya	nce or gift.			
Flood Damage Prevention	Yes	State & local	Yes	Yes	-



			Have aspects of this be integrated into your mitigation plan?	
				If no - can it be a
	Authority that			mitigation
	enforces		If ves-	action? If
			~	
Do you have	(Federal, State,		how?	yes, add
this?	Regional,	Is this State	Describe in	Mitigation
(Yes/No)	County, Local)	Mandated?	comments	Action #.

Comment:

- 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 105, adopted by the Township Committee, as amended in its entirety 08-22-2017. 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 accomplished by; a) 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; b) Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction; c) Controlling the alteration of natural floododplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; d) Controlling filling, grading, dredging, and other development which may increase flood damage; and, e) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.
- This Chapter requires 2 feet of freeboard for regulated residential and nonresidential improvements in a SFHA. Porous paving has
 also been required in appropriate locations.

also been required in appropriate locati	ons.				
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:					
Other	No	-	No	-	-
Comment:					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-

Comment:

- 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 10 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity.
- Master Plan Land Use Plan, Township of Dennis, Adopted by the Planning Board on 12-05-1012.



Table 7.5-5. Hamming, Legal and Regul	7			integrated	s of this been l into your on plan? If no - can it		
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments	be a mitigation action? If yes, add Mitigation Action #.		
Goal #5 of the Master Plan is to protect comprehensive protection for a broad re environmental preservation and protect	ange of natural res						
Capital Improvement Plan	Yes	Local	No	Yes	2021-Dennis- 005		
Comment: Capital improvement program 2020. To Capital Improvement Fund, Capital Lin A multi-year list of planned capital proj- flood prevention aspect in the 2024 plan	e items and Down ects was provided,	Payments on Improven including the current y	nents. No bond or	dinances are plai	ıned this year.		
Disaster Debris Management Plan Comment:	No	-	No	-	2021-Dennis- 006		
Floodplain or Watershed Plan	No	-	No	-	-		
Comment:							
Stormwater Management Plan	Yes	State & Local	Yes	Yes	-		
design and performance standards for n include groundwater recharge, runoff que consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with prior authorization from the Departmen Stormwater Pollution Prevention Plan,	uantity controls, a stormwater manag of stormwater pip stormwater runoj in or to discharge t under the Flood	nd runoff quality contro ement techniques inclu- es, preserving natural off quantity control, stor- runoff from the major of	ols. The rules emp ding minimizing a drainage features mwater runoff qua development into	hasize, as a prim listurbance, minin , etc. The rules al ality control, and a 300-foot ripari	ary nizing so set forth the prohibition		
Stormwater Pollution Prevention Plan	Yes	State & Local	Yes	Yes	-		
■ 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, a Urban Water Management Plan	No	-	No	-	-		
Comment:							
Habitat Conservation Plan	Yes	Local	No	Yes	-		
Comment: • Natural Resources Inventory, revised M recognizing and understanding the uniq mapping and description of sensitive are development of the remaining vacant, pi	ue resources prese eas facilitates the p	ent. It provides a tool to proper use and protecti	o identify and prot on of existing nat	ect these resourc ural areas, the ap	es. The ` propriate		

aid in refining zoning regulations and land use ordinances. The identification and understanding of natural systems and their



				integrated	s of this been l into your on plan? If no - can it
inherent and regulatory limitations for a	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments	be a mitigation action? If yes, add Mitigation Action #.
The inventory can identify possibilities f	or regional partne				
conditions and quality of life in the Tow Economic Development Plan	nship. No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la	enlargement of but	ildings or structures, a	nd excavation, gra	ding, shore prote	ection
Community Wildfire Protection Plan	No	-	No	-	-
Comment:					
Community Forest Management Plan	Yes	State & Local	No	Yes	-
understand the magnitude of the tree resource; To enco the Environmental Commission is responsible. Transportation Plan	land that lend char urage Township E	acter to the Township; imployees to be good si	To encourage To tewards of the Tov	wnship residents vnships tree reso	to be good urce.
Comment:					
Agriculture Plan	No	-	No	-	-
Comment:					
Climate Action Plan	No	-	No	-	-
Comment:					
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	Local, County	Yes	Yes	-
(CEMP) / Emergency Operations Plan (EOP) Comment: • Each county and municipality in the State necessary to implement the plan. Each I Emergency Planning Guidelines have be subsequent scheduled review of the State I The Township's CEMP refers to the haze I The Township is also part of the County	Emergency Operat een adopted by the e Emergency Oper ard mitigation pla	ions Plan shall be adop State Office of Emerg cations Plan. L.1989, c. n.	oted no later than ency Management	one year after th	e State



Table 9.5-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	integrate	s of this been l into your on plan? If no - can it be a mitigation action? If yes, add Mitigation Action #.		
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-		
Comment:							
Post-Disaster Recovery Plan	No	-	No	-	-		
Comment:				<u>'</u>			
Continuity of Operations Plan	Yes	Local	No	Yes	-		
Comment: The Township has a COOP that will sen	ve to protect the lo	ocal government and o	perations from na	tural hazard disr	uptions.		
Public Health Plan	Yes	County	No	No	No		
Comment: • County Public Health Plan and Public Health Assessment.							
Other	No	-	No	-	-		
Comment:							

Table 9.5-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	No, Development permits are issued by the state.
Does your jurisdiction have the ability to track permits by hazard area?	No
Does your jurisdiction have a buildable lands inventory? -If yes, please describe brieflyIf no, please quantitatively describe the level of buildout in the jurisdiction.	No

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.5-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position			
Administrative Capability					
Planning Board	Yes	Land Use/ Planning			
Mitigation Planning Committee	Yes	OEM			
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	CodeRED			
Maintenance program to reduce risk	Yes	Public Works conducts regular maintenance			
Mutual aid agreements	Yes	Township Committee			
Technical/Staffing Capability					





Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Planning Board Engineer Andy Previtti
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Engineer Jack Gibson
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer Jack Gibson
Staff with training in benefit/cost analysis	Yes	CFO
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	Yes	Charles Adamson
Stormwater engineer	Yes	Engineer
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	John Berg
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Consultants
Resilience Officer	No	-
Other	No	-

FISCAL CAPABILITY

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

Table 9.5-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes, Township Committee
Capital Improvements Project Funding	Yes, Township Committee
Authority to Levy Taxes for Specific Purposes	Yes, Township Committee
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	Yes, Township Committee
Incur Debt through Special Tax Bonds	Yes, Township Committee
Incur Debt through Private Activity Bonds	Yes, Township Committee
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes, Township Committee
Development Impact Fees for Homebuyers or Developers	No
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 Township of Dennis.

Table 9.5-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	No



Criterion	Response
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	The Township's website posts information regarding important information and public notices and includes links to important hurricane and other disaster risk information.
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes, website, Facebook
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 Township of Dennis.

Table 9.5-8. Community Classifications

Program	Participating?	Classification	Date Classified	
Community Rating System	No	-	-	
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-	
Public Protection (Fire ISO Protection Class)	Yes	4- residential, 3- commercial	Unknown	
Storm Ready Certification	No	-	-	
Firewise Community Classification	No	-	-	
Sustainable Jersey	Yes	None	-	

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 9.5-9. 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	
Severe Weather	Moderate	
Severe Winter Weather	Strong	
Tsunami	Moderate	
Wildfire	Moderate	





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 Township does not have access to resources to determine the possible impacts of climate change upon the municipality. Climate change is not being integrated into current policies/plans or actions. At this time, the administration is not supportive 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 9.5-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Construction Department
Who is your floodplain administrator? (name, department/position)	Michael Morano, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	8/22/2017
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Exceeds, requires 2 feet of freeboard and permeable pavement in certain locations
When was the most recent Community Assistance Visit or Community Assistance Contact?	December 2017
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, remapping is underway for Cape May County
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 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?* -What is the insurance in force? -What is the premium in force?	46 policies
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?	14 claims \$1,035,224 in payments
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

• Stormwater Management: The Township is a MS4 Regulated Community and has stormwater management plan that identifies projects, actions or initiatives to mitigate stormwater flooding. Stormwater Management functions in the community are performed by John Gibson, the Township Engineer.



- Natural Resources Inventory: The Natural Resources Inventory was prepared to assist the Township in recognizing and understanding the unique resources present. It provides a tool to identify and protect these resources. The plan includes important information regarding water, biological and cultural resources. The plan specifically addresses coastal resources, floodplains and open space. It does not refer to the hazard mitigation plan, but was intended to support land use decision-making in the Township.
- Land Use Planning: The Consolidated Land Use Board reviews applications to determine compliance with natural risk reduction. The Township's Environmental Commission also has functions related to managing natural hazard risk. The Environmental Commission represents the public and its long-term interests as local environmental advocates and advises the Township Council and the planning and zoning boards about environmental impacts of proposed developments and advocates for open-space preservation.
- **Technical Resources:** The Township contracts with firms for benefit-cost analysis needs and grant application support. Township staff receive training and education in support of natural hazard risk reduction.
- Underground Utility Wires: The Township administration, developers, and private property
 owners develop and adopt local regulations requiring new development to have underground utility
 wires.
- County Support on Fire Fighting: The Fire Department is partnering with Cape May County to identify proper locations for and install water draw (siphon) stations to increase fire-fighting capacity and capabilities). The Township relies on private wells; there is no public water distribution. Local Fire Chiefs are working with County Fire Coordinator to become a National Fire Protection Association (NFPA) "Firewise" community. Local Fire Chiefs 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.
- County Support on Flood Issues: The County Engineering, with municipal support, continue to support County-led efforts to conduct an engineering study to understand flooding issues and evaluate possible solutions:
 - o at low areas along Woodbine-Ocean View Road (CR550) in Dennis Township
 - low areas along Court House-South Dennis Road (CR657) near Beaver Dam Road in Dennis Township
 - o along Fidler Road (CR638) in Dennis Township
 - o along Corsons Tavern Road (CR628) in Dennis Township
- **Environmental Commission:** The Environmental Commission continue to provide and augment environmental assessment regulations to identify and protect sensitive environmental resources.
- **Stormwater Management:** The Department of Public Works minimize off-site storm water runoff by encouraging the use of best management practices which protect the character of the natural drainage systems.



9.5.5 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 Township of Dennis'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 9.5-11 provides details regarding municipal-specific loss and damages the Township experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.5-11. 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 24th.	Although the County was impacted, the Township did not report 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 Township was subject to restrictions due to coronavirus.

Source: NOAA NCEI 2020, FEMA 2020

Note:

9.5.6 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 Township of Dennis 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 Township of Dennis.

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: None

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 9.5-12. Potential Flood Losses to Critical Facilities and Lifelines

	Exposure		
Name	Туре	1% Event	0.2% Event
No Name	Communications Facility	X	X
No Name	Communications Facility	X	X
No Name	Communications Facility	X	X
Ludlams Thorofare Bridge	Bridge	X	X
C.H-S Dennis Rd Bridge	Bridge	X	X
Minmar Marine Basin	Marinas	X	X
Larsen's Marina	Marinas	X	X
East Creek Manor	Senior Facility		X
OCEAN VIEW SERVICE AREA	Potable Water Facilities	X	X
Magnolia Lake Dam	Dams	X	X
East Creek Pond Dam	Dams		X
West Creek Dam	Dams	X	X
Ludlam Pond Dam	Dams		X

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

Note:

IDENTIFIED ISSUES

The jurisdiction has identified the following vulnerabilities within their community:

- Some roadways/evacuation routes that are susceptible to flooding; i.e. county roads such as Court-House South Dennis Road by Beaver Swamp.
- Falling trees result in power losses due to damage on wires.
- Dennis Township Primary & Elementary Schools (designated as Shelters of Last Resort) and the Dennis Township Recreation Center require backup power.
- The Township has two remaining unmitigated repetitive loss properties.
- Wells are needed at the Ocean View Fire Station on Route 9 and the Dennis Volunteer Fire Company on Petersburg Road.
- The Township needs Variable Message Boards for use in high traffic areas of the Township.

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Township of Dennis 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 Township of Dennis has significant exposure. A map of the Township of Dennis 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.

^{*}Identified lifeline

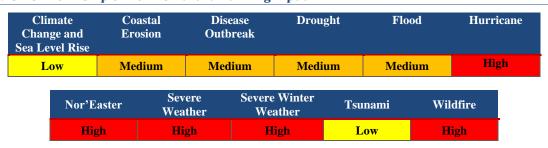


As discussed in Section 5.3 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Cape May County as a whole. Therefore, each jurisdiction ranked the degree of risk to each hazard as it pertains to their community factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential natural hazards for the Township of Dennis. The Township of Dennis 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 Township indicated the following:

The Township agreed with the calculated hazard rankings.

Table 9.5-13. Township of Dennis Hazard Ranking Input



9.5.7 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 9.5-14. 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 20 Check if Yes	21 HMP Update? Enter 2021 HMP Action #
TD- 1a	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.	Township (likely through NFIP Floodplain Administrator); State OEM, County OEM	Ongoing Capability		
TD- 1b	Where appropriate, support acquisition and/or relocation of structures located in hazard-prone areas to protect structures	Township (likely through NFIP Floodplain Administrator);	No Progress, the Township has two remaining unmitigated properties	X	2021-Dennis- 001



Table 9.5-14. Status of Previous HMP Mitigation Actions

	9.5-14. Status of Previous HM		Status		24 1110 11 1 1 2
			(In Progress, No Progress,	Include in the 20	21 HMP Update?
2	2015 Action Number Action Description	Responsible Party	Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
	from future damage, with repetitive loss and severe repetitive loss properties as priority.	State OEM, County OEM			
TD-2	Continue to develop, enhance, and implement existing emergency plans.	Municipal Emergency Manager with support from County OEM and NJOEM	Ongoing Capability		
TD-3	Create/enhance/ maintain mutual aid agreements with neighboring communities.	Township OEM	Ongoing Capability		
TD-4	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		
TD- 5	Purchase generator for the two Ocean View Fire Stations. These facilities not only serve Dennis Township but provide car storage for Sea Isle City.	Fire Department	Complete		
TD- 6	Purchase generators for both Academy Lane and Hagon Road Schools which are both designated 'Shelters of Last Resort'	School Administration	No Progress	X	2021-Dennis- 003
TD- 7	A water well is needed at Ocean Fire Station #1 to increase response capabilities	Fire Department	No Progress	X	2021-Dennis- 002
TD-8	A water well is needed at Dennisville Fire House to increase response capabilities	Fire Department	No Progress	X	2021-Dennis- 002
TD- 9	Develop and adopt local regulations requiring new development to have underground utility wires.	Township administration; developers and private property owners	Ongoing Capability		
TD- 10	Install a water line down Route 9 to supply water to Middle Township	Township DPW	No Progress, no longer a priority		
TD- 11	Elevate Sea Isle Blvd roadway and ramps which will require elevation of the Garden State Parkway bridge overpass (intersection of Sea Isle Blvd [CR-601] and Garden State Parkway)	County Engineering with NJTPA	Complete		
TD- 12	Purchase and permanently install variable message boards to advise of traffic, alternate routes/detours due to accidents / flooding / wildfire events/other hazardous conditions along the	Township OEM and DPW	No Progress	X	2021-Dennis- 004



Table 9.5-14. Status of Previous HMP Mitigation Actions

			Status	Include in the 20	21 HMP Update?
2	2015 Action Number Action Description	Responsible Party	(In Progress, No Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
	following Routes through the Township which serve as major evacuation routes:				
TD- 13	Continue to investigate solutions to mitigate flooding at the intersection of Routes 47 and 83.	Cape May County; State DOT	Complete		
TD- 14	Identify proper locations for and install water draw (siphon) stations to increase fire-fighting capacity and capabilities). The Township relies on private wells; there is no public water distribution.	Fire Department; Cape May County	Ongoing Capability		
TD- 15	Elevate Sea Isle Boulevard (CR-601) from the Parkway to the Sea Isle bridge. This project is currently in the State Transportation Improvement Plan (TIP) for construction over the next two years, and is currently in the preliminary engineering phase.	County Engineering with municipal support	Complete		
TD- 16	Continue to support County-led efforts to conduct an engineering study to understand flooding issues and evaluate possible solutions: •at low areas along Woodbine-Ocean View Road (CR550) in Dennis Township •low areas along Court House-South Dennis Road (CR657) near Beaver Dam Road in Dennis Township •along Fidler Road (CR638) in Dennis Township •along Corsons Tavern Road (CR628) in Dennis Township	County Engineering with municipal support	Ongoing Capability		
TD- 17	Become a National Fire Protection Association (NFPA) "Firewise" community.	Local Fire Chiefs working with County Fire Coordinator	Ongoing Capability		
TD- 18	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	Local Fire Chiefs	Ongoing Capability		



Table 9.5-14. Status of Previous HMP Mitigation Actions

			Status (In Progress, No Progress,	Include in the 202	21 HMP Update?
2	2015 Action Number Action Description	Responsible Party	Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
TD-	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. Continue to provide and	Environmental	Ongoing Capability		
19	augment environmental assessment regulations to identify and protect sensitive environmental resources.	Commission	Ongoing Capability		
TD- 20	Consider establishment of a Shade Tree Commission.	DPW	No Progress		
TD- 21	Continue/Implement a tree maintenance program.	DPW	No Progress	X	2021-Dennis- 007
TD- 22	Minimize off-site storm water runoff by encouraging the use of best management practices which protect the character of the natural drainage systems.	DPW	Ongoing Capability		

In addition to the above progress, the Township of Dennis 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 Township of Dennis 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 Township of Dennis 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 9.5-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Dennis 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 9.5-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.5-15. Proposed Hazard Mitigation Initiatives

Initiative Number 2021- Dennis- 001 (TD- 1b)	Mitigation Initiative Name Mitigate Repetitive Loss	Description of the Problem and Solution Problem: The Township has two remaining unmitigated properties. Solution: The Township will conduct outreach to the two RL/SRL property owners and provide information on property acquisition or relocation. The Township will collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving residential homes in the flood prone areas that experience frequent flooding (high risk areas).	New or Existing Assets? Existing	Hazard(s) to be Mitigated Flood, Severe Weather	Goals Met	Lead and Support Agencies NFIP Floodplain Administrator, supported by homeowners	Potential Funding Sources 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.	Estimated Cost	3 years	High Priority	S Mitigation Category	PP
2021- Dennis- 002 (former TD-7 and TD-8)	Water Wells for Fire Stations	Problem: Water wells are needed at Ocean Fire Station #1 and the Dennisville Fire House to increase response capabilities. Solution: The Township will install water wells at each fire station.	Existing	Drought, Wildfire	3, 4	Fire Department	BRIC, Community Facilities Grant Program, Assistance to Firefighters Grant Program	Increased emergency response capabilities	High	Within 5 years	High	SIP	ES
2021- Dennis- 003 (former TD- 6)	Generators for Shelters	Problem: Backup power sources are necessary to maintain critical services for critical facilities. Academy Lane and Hagon Road Schools which are both designated 'Shelters of Last Resort' lack backup power sources. Solution: The Township will research the appropriately sized generators for each facility. The Township will then purchase and install generators and necessary electrical components for both schools.	Existing	All Hazards	1, 3, 4	OEM, Engineer	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	Continuity of sheltering services	\$50,000 per generator	1 year	High	SIP	ES





Table 9.5-15. 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- Dennis- 004 (former TD- 12)	Variable Message Boards	Problem: Message boards are needed to conduct outreach and emergency messaging in the Township. Solution: The Township will purchase and permanently install variable message boards to advise of traffic, alternate routes/detours due to accidents / flooding / wildfire events/other hazardous conditions along the following Routes through the Township which serve as major evacuation routes: . 550 . 347 . 47 . 83	N/A	All Hazards	2, 3, 4	OEM	Emergency Management Performance Grants (EMPG) Program, Municipal Budget	Increased emergency messaging	\$20,000 per sign	Within 3 years	High	EAP	PI, ES
2021- Dennis- 005	Drain Vac Truck	Problem: The Township requires a Drain Vac Truck to clean storm drains of silt and debris to prevent stormwater flooding. Solution: The Township will purchase a Drain Vac Truck and utilize for regular stormwater cleaning.	N/A	Severe Weather, Flood	3	DPW	Capital budget	Public works capabilities increasing, stormwater flood risk reduced	\$250,000	4 years	High	LPR	PR
2021- Dennis- 006	Disaster Debris Management Plan	Problem: The Township lacks a debris management plan. Solution: The Township will develop and adopt a Disaster Debris Management Plan.	N/A	All Hazards	4, 6	Administration	Municipal budget	Plan in place for debris management	Staff time	1 year	High	LPR	ES
2021- Dennis- 007 (TD- 21)	Vegetation Management Program	Problem: Falling trees result in power losses due to damage on wires. Solution: The Township will develop a vegetation management program.	N/A	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 5	DPW	Municipal budget	Reduction in damages and power loss from falling trees	\$50,000	1 year	High	NSP	NR

Notes:

Acronyms and Abbreviations:

CAV Community Assistance Visit CRS Community Rating System DPW Department of Public Works Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program HMGP Hazard Mitigation Grant Program Timeline:

The time required for completion of the project upon implementation

Cost:







FEMA Federal Emergency Management Agency

FPAFloodplain Administrator

HMAHazard Mitiaation Assistance

N/ANot applicable

NFIP National Flood Insurance Program OEMOffice of Emergency Management

BRIC Building Resilient Infrastructure and Communities Program

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,
- 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 9.5-16. 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- Dennis-001 (TD-1b)	Mitigate Repetitive Loss	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Dennis-002 (former TD-7 and TD-8)	Water Wells for Fire Stations	1	0	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Dennis-003 (former TD- 6)	Generators for Shelters	1	1	1	1	1	1	0	1	1	1	0	1	1	1	12	High
2021- Dennis-004 (former TD- 12)	Variable Message Boards	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Dennis-005	Drain Vac Truck	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Dennis-006	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Dennis-007 (TD-21)	Vegetation Management Program	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	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 9.5-17. 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		X	X		X			X
Change and								
Sea Level								
Rise								
Coastal		X	X		X			X
Erosion								
Disease		X	X		X			X
Outbreak								
Drought		X	X		X			X
Flood		X	X		X			X
Hurricane		X	X	X	X			X
Nor'Easter		X	X	X	X			X
Severe		X	X	X	X			X
Weather								
Severe		X	X	X	X			X
Winter								
Weather								
Tsunami		X	X		X			X
Wildfire		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



Figure 9.5-1. Township of Dennis Hazard Area Extent and Location Map 1

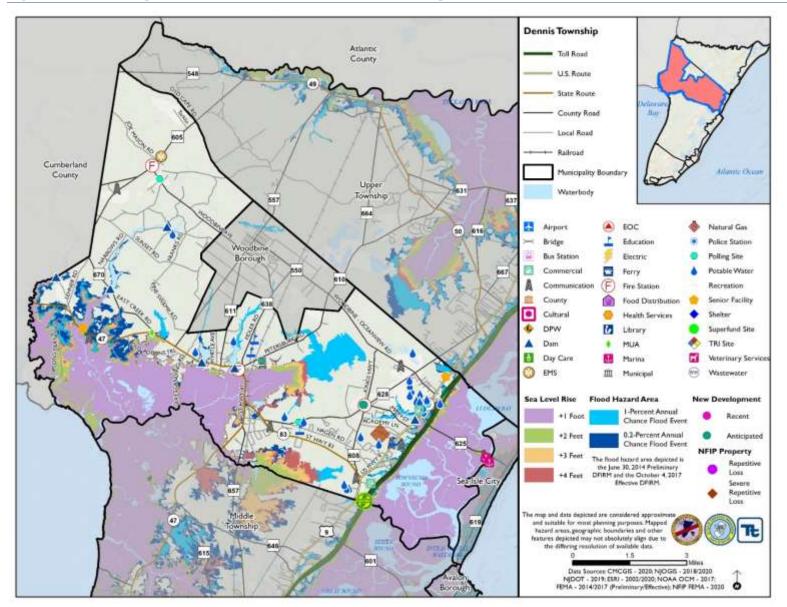




Figure 9.5-2. Township of Dennis Hazard Area Extent and Location Map 2

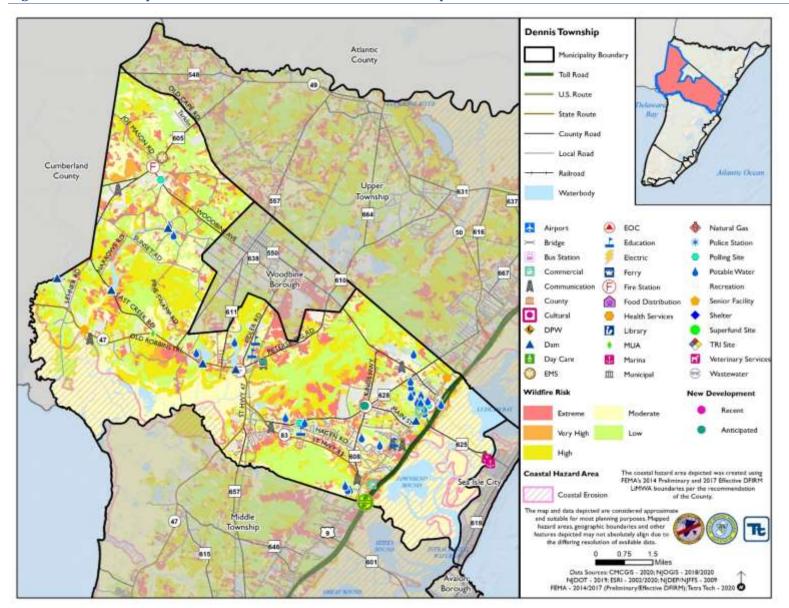
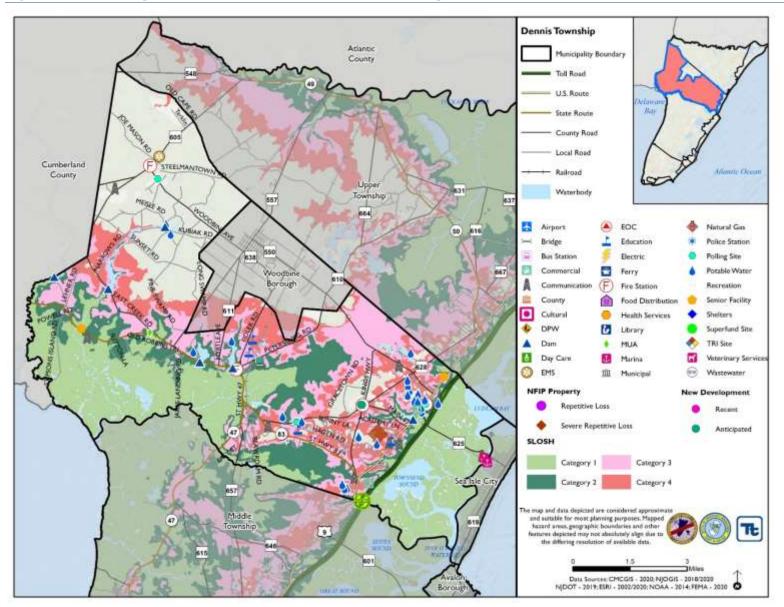






Figure 9.5-3. Township of Dennis Hazard Area Extent and Location Map 3





Tall Bar

	A	ction W	orkshee	t			
Project Name:	Mitigate Repetitive Lo	oss					
Project Number:	2021-Dennis-001						
	Ri	sk / Vul	nerabilit	y			
Hazard(s) of Concern:	Flood, Severe Weathe	r					
Description of the Problem:	The Township has two				roperties.		
	Action or Projec	t Intend	led for Iı	nplementation			
Description of the Solution:							
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂			
Level of Protection:	1% annual chance floo event + freeboard (in accordance with flood ordinance)			ted Benefits 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 M	let:	1		
Estimated Cost:	\$500,000		Mitigat	ion Action Type:	Structure and Infrastructure Project		
	Plan	for Imp	lementa	tion			
		Î	Desired	l Timeframe for			
Prioritization:	High	Three years			6-12 months		
Prioritization: Estimated Time Required for Project Implementation:				nentation: al Funding	6-12 months FEMA HMGP and FMA, BRIC, local cost share by residents		
Estimated Time Required for Project	Three years NFIP Floodplain Administrator, support		Potenti Source Local P Mechan in Impl	nentation: al Funding s: lanning nisms to be Used ementation if any:	FEMA HMGP and FMA, BRIC, local cost share by		
Estimated Time Required for Project Implementation:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives		Potenti Sources Local P Mechai in Impl ered (inc	nentation: al Funding s: lanning nisms to be Used ementation if any: cluding No Action)	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation		
Estimated Time Required for Project Implementation:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives Action		Potenti Sources Local P Mechai in Impl ered (inc	al Funding s: lanning nisms to be Used ementation if any: luding No Action) stimated Cost	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation Evaluation		
Estimated Time Required for Project Implementation:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives	Consid	Potenti Sources Local P Mechai in Impl ered (inc	nentation: al Funding s: lanning nisms to be Used ementation if any: cluding No Action)	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation Evaluation Current problem continues 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		
Estimated Time Required for Project Implementation: Responsible Organization:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives Action No Action Elevate homes	Consid	Potenti Source: Local P Mechai in Impl ered (inc	al Funding s: lanning hisms to be Used ementation if any: luding No Action) stimated Cost \$0 \$500,000	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation Evaluation Current problem continues When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and		
Estimated Time Required for Project Implementation: Responsible Organization:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives Action No Action Elevate homes	Consid	Potenti Source: Local P Mechai in Impl ered (inc	al Funding s: lanning hisms to be Used ementation if any: luding No Action) stimated Cost \$0 \$500,000	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation Evaluation Current problem continues 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 Elevated roadways would not protect the homes from		
Estimated Time Required for Project Implementation: Responsible Organization:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives Action No Action Elevate homes	Consid	Potenti Source: Local P Mechai in Impl ered (inc	al Funding s: lanning hisms to be Used ementation if any: luding No Action) stimated Cost \$0 \$500,000	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation Evaluation Current problem continues 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 Elevated roadways would not protect the homes from		
Estimated Time Required for Project Implementation: Responsible Organization: Alternatives:	Three years NFIP Floodplain Administrator, support homeowners Three Alternatives Action No Action Elevate homes	Consid	Potenti Source: Local P Mechai in Impl ered (inc	al Funding s: lanning hisms to be Used ementation if any: luding No Action) stimated Cost \$0 \$500,000	FEMA HMGP and FMA, BRIC, local cost share by residents Hazard Mitigation Evaluation Current problem continues 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 Elevated roadways would not protect the homes from		





	Acti	ion Worksheet
Project Name:	Mitigate Repetitive Loss	
Project Number:	2021-Dennis-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 Township 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 Township.
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	





	A	Action V	Vorks	sheet						
Project Name:	Water Wells for Fire	Stations								
Project Number:	2021-Dennis-002 (for	mer TD	-7 and	TD-8)						
Risk / Vulnerability										
Hazard(s) of Concern:	Drought, Wildfire	Drought, Wildfire								
Description of the Problem:	response capabilities.		ean Fii	re Station #1 and the Dennis	ville Fire House to increase					
Action or Project Intended	for Implementation	or Implementation								
Description of the Solution:	The Township will install water wells at each fire station. escription of the									
Is this project related to a	Critical Facility? Yes 🛛 No 🗌									
Level of Protection:	Water sources establ	lished		mated Benefits ses avoided):	Tank will ensure continued operations for domestic serve and firefighting before, during and after storm events.					
Useful Life:	25 years		Goal	ls Met:	3, 4					
Estimated Cost:	High		Miti	gation Action Type:	Structure and Infrastructure Project					
Plan for Implementation										
Prioritization:	High			red Timeframe for lementation:	Within 5 years					
Estimated Time Required for Project Implementation:	1 month		Pote	ential Funding Sources:	BRIC, Community Facilities Grant Program, Assistance to Firefighters Grant Program					
Responsible Organization:	Maintenance		to b	nl Planning Mechanisms te Used in lementation if any:	Hazard Mitigation					
Three Alternatives Conside		ction)								
	Action			Estimated Cost	Evaluation					
	No Action			\$0	Problem continues.					
Alternatives:	Build large water sto	orage		High	Costly, still require water					
	tanks Purchase tanker	·c		High	source to fill Costly, still require water					
	i urchase tanker	3		mgn	source to fill					
Progress Report (for plan i	naintenance)									
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or										





	Acti	on Worksheet
Project Name:	Water Wells for Fire Stat	ions
Project Number:	2021-Dennis-002 (former	TD-7 and TD-8)
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Well allows for increased firefighting capability
Property Protection	0	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Township has the legal authority to complete the project
Fiscal	0	The project requires funding support
Environmental	1	
Social	1	Provides service to the community
Administrative	1	
Multi-Hazard	1	Drought, Wildfire
Timeline	0	Within 5 years
Agency Champion	1	Fire Department
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	





Action Worksheet					
Project Name:	Generators for Shelters				
Project Number:	2021-Dennis-003				
Risk / Vulnerability					
Hazard(s) of Concern:	All Hazards				
Description of the Problem:	Backup power sources are necessary to maintain critical services for critical facilities. Academy Lane and Hagon Road Schools which are both designated 'Shelters of Last Resort' lack backup power sources.				
Action or Project Intended					
Description of the Solution:	The Township will research the appropriately sized generators for each facility. The Township will then purchase and install generators and necessary electrical components for both schools.				
Is this project related to a Critical Facility? Yes No					
Level of Protection:	N/A	Estimated Benefits (losses avoided):		Ensures continuity of operations of DPW building	
Useful Life:	20 years	Goals Met:		1, 3, 4	
Estimated Cost:	\$50,000 per generator	or Mitigation Action Type:		Structure and Infrastructure Projects (SIP)	
Plan for Implementation					
Prioritization:	High	Desired Timeframe for Implementation:		1 year	
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources: Potential Funding Sources: Perform (EMPG		FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	
Responsible Organization:	OEM, Engineer	Local Planning Mechan to be Used in Implementation if any:	isms	Hazard Mitigation, Emergency Management	
Three Alternatives Considered (including No Action)					
	Action	Estimated Cost		Evaluation	
	No Action	\$0		Problem continues.	
Alternatives:	Install solar panels	\$100,000	amo e:	eather dependent; need large bunt 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 r	naintenance)				
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





Action Worksheet				
Project Name:	Generators for Shelters			
Project Number:	2021-Dennis-003			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	1	Project will protect critical services of shelters		
Property Protection	1	Project will protect schools from power loss.		
Cost-Effectiveness	1			
Technical	1			
Political	1			
Legal	1	The Township has the legal authority to complete the project		
Fiscal	0	Project requires funding support.		
Environmental	1			
Social	1			
Administrative	1			
Multi-Hazard	0	All Hazards		
Timeline	1	1 year		
Agency Champion	1	OEM, Engineer		
Other Community Objectives	1			
Total	12			
Priority (High/Med/Low)	High			