



## 9.18 TOWNSHIP OF SANDYSTON

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

### 9.18.1 Hazard Mitigation Planning Team

The Township of Sandyston followed the planning process described in Section 2 (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 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.18-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact
Name / Title: Shane Houghtaling, Emergency Mgmt Address: 133 Route 645, Sandyston, NJ 07826 Phone Number: 973-222-5533 Email: oem@sandystontownship.com		Name / Title: Amanda F. Lobban, RMC, Municipal Clerk Address: 133 Route 645, Sandyston, NJ 07826 Phone Number:(973-948-3520 x200 Email: clerk@sandystontownship.com
NFIP Floodplain Administrator		
Name / Title: Robert W. Huber, Construction Official Address: 133 Route 645, Sandyston, NJ 07826 Phone Number: (973) 948-3520 x201 Email: deputyclerk@sandystontownship.com		
Name	Title	Method of Participation
Shane Houghtaling	Emergency Management	Primary point of contact, mitigation strategy development
Amanda F. Lobban	Municipal Clerk	Alternate point of contact, mitigation strategy development; attended the kickoff meeting and annex training and mitigation strategy workshop; reviewed the critical asset inventory; assisted with public outreach (Facebook); provided information and data for the updated annex
Robert W. Huber	Construction Official	NFIP floodplain administrator
Stanley J. Dutkus	Emergency Management	Attended kickoff meeting; reviewed the critical asset inventory

### 9.18.2 Jurisdiction Profile

Sandyston Township is a small rural township located in the northwestern portion of Sussex County. It has a total area of 43.3 square miles. The Township is bordered to the north by Montague Township, to the south by Frankford, Walpack, and Hampton Townships, to the east by Wantage and Frankford Townships, and to the west by Pennsylvania. The Delaware River makes up the entire western border of the Township. Big Flat Brook, Little Flat Brook, and Tuttle's Corner Brook are all streams located within the Township. The following





unincorporated communities are located within the Township: Shaytown, Hainesville, Abertown, Layton, Bevans, Tuttles Corner, and Normanook.

According to the U.S. Census, the 2010 population for the Township of Sandyston was 1,998. The estimated 2018 population was 1,925, a 3.6 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.9 percent of the population is 5 years of age or younger and 19.8 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.

### 9.18.3 Growth/Development Trends

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

**Table 9.18-2. Recent and Expected Future Development**

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

\* Only location-specific hazard zones or vulnerabilities identified.  
SFHA = Special Flood Hazard Area

### 9.18.4 Capability Assessment

Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The Township of Sandyston performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. This section summarizes the following findings of the assessment for this jurisdiction:

- An assessment of legal and regulatory capabilities
- Development and permitting capabilities
- An assessment of fiscal capabilities
- An assessment of education and outreach capabilities
- Information on NFIP compliance





- Classification under various community mitigation programs
- The community’s adaptive capacity for the impacts of climate change

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 below. The Township of Sandyston identified specific integration activities that will be incorporated into municipal procedures; these actions 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 Sandyston and where hazard mitigation has been integrated.

**Table 9.18-3. Planning, Legal and Regulatory Capability**

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<b>Codes, Ordinances, &amp; Requirements</b>					
<b>Building Code</b>	Yes	State & Local	Yes	Yes	-
<i>Comment:</i> <ul style="list-style-type: none"> <li>• 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</li> <li>• The Building Department is responsible for this code in compliance with State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.).</li> </ul>					
<b>Zoning Code</b>	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i> <ul style="list-style-type: none"> <li>• 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.</li> <li>• The Zoning Department is responsible for this code in compliance with Chapter 150- Zoning.</li> <li>• The purpose of this chapter is to contribute to and provide for the recreational developments in the Delaware Valley; to promote and protect the health, safety and general welfare of the public; to preserve the present environment, rural in character, insofar as possible and conserve forest cover and streams; to provide for an orderly development of service zones; to implement the design of a residential community dedicated to the preservation of open space with population densities in harmony with the geology and water resources of the Flatbrook Watershed.</li> </ul>					
<b>Subdivisions</b>	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i> <ul style="list-style-type: none"> <li>• 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.</li> </ul>					





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
					<ul style="list-style-type: none"> <li>The Building Department is responsible for this ordinance in compliance with Chapter 137 – Subdivision and Site Plan Review.</li> </ul>
<b>Stormwater Management</b>	Yes	State & Local	Yes	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8</li> <li>Chapter 138 Stormwater Control</li> <li>It is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development.</li> </ul>					
<b>Post-Disaster Recovery</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Real Estate Disclosure</b>	Yes	State, Division of Consumer Affairs	Yes	Yes	-
<b>Comment:</b> 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.					
<b>Growth Management</b>	No	-	Yes – if municipality has a Planning Board	-	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development &amp; 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.</li> </ul>					
<b>Site Plan Review</b>	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>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.</li> <li>The Building Department is responsible for these requirements in compliance with Chapter 137 – Subdivision and Site Plan Review.</li> </ul>					
<b>Environmental Protection</b>	Yes	Local	No	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>Chapter 85 Hazardous Wastes</li> <li>Chapter 100 Littering</li> <li>Chapter 141 Trees</li> </ul>					
<b>Flood Damage Prevention</b>	Yes	Federal, State & Local	Yes	Yes	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>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.</li> <li>The Construction Official is responsible for this ordinance in compliance with Chapter 75- Flood Damage Prevention.</li> </ul>					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul style="list-style-type: none"> <li>It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:               <ul style="list-style-type: none"> <li>A. Protect human life and health.</li> <li>B. Minimize expenditure of public money for costly flood-control projects.</li> <li>C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.</li> <li>D. Minimize prolonged business interruptions.</li> <li>E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard.</li> <li>F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas.</li> <li>G. Ensure that potential buyers are notified that property is in an area of special flood hazard.</li> <li>H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</li> </ul> </li> <li>The Ordinance includes the state's 1-foot freeboard requirement.</li> </ul>					
<b>Wellhead Protection</b>	Yes	Local	No	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>Chapter 150 Zoning, Article IV General Regulations and Standards establishes that wellhead protection areas may be reserved as open space as necessary.</li> </ul>					
<b>Emergency Management</b>	Yes	Local	No	No	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>Chapter 11, Fire Department, Volunteer</li> <li>Chapter 71, Fire Prevention</li> </ul>					
<b>Climate Change</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Disaster Recovery Ordinance</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Disaster Reconstruction Ordinance</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Other:</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Planning Documents</b>					
<b>Comprehensive / Master Plan</b>	Yes	Local	Yes	Yes	-
<b>Comment:</b>					
<ul style="list-style-type: none"> <li>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.</li> <li>The Township Comm. is responsible for this plan, which was adopted in 2008.</li> </ul>					
<b>Capital Improvement Plan</b>	No	-	No	-	-
<b>Comment:</b>					
<b>Disaster Debris Management Plan</b>	No	-	No	No	2021-Sandyston-006





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<i>Comment:</i>					
<b>Floodplain or Watershed Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Stormwater Management Plan</b>	Yes	Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>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.</li> <li>The DPW is responsible for this plan in compliance with Storm Water 2005.</li> </ul>					
<b>Stormwater Pollution Prevention Plan</b>	Yes	Local	Yes	No	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>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.</li> </ul>					
<b>Urban Water Management Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Habitat Conservation Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Economic Development Plan</b>	Yes	Local	No	No	-
<i>Comment:</i> The Township Comm. is responsible for this plan in compliance with the 2008 Master Plan.					
<b>Shoreline Management Plan</b>	-	-	Yes – if located in a coastal zone	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>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.</li> </ul>					
<b>Community Wildfire Protection Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Community Forest Management Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Transportation Plan</b>	No	-	No	-	-
<i>Comment:</i>					
<b>Agriculture Plan</b>	No	-	No	-	-



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<i>Comment:</i>					
Climate Action Plan	No	-	No	-	-
<i>Comment:</i>					
Tourism Plan	No	-	No	-	-
<i>Comment:</i>					
Business Development Plan	No	-	No	-	-
<i>Comment:</i>					
Other: Open Space Plan	Yes	Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>The Township Comm. is responsible for this plan in compliance with Master Plan 2008.</li> </ul>					
<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> <li>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.</li> <li>The OEM is responsible for this plan, which was adopted in August of 2013.</li> </ul>					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
<i>Comment:</i>					
Post-Disaster Recovery Plan	No	-	No	-	-
<i>Comment:</i>					
Continuity of Operations Plan	No	-	No	-	-
<i>Comment:</i>					
Public Health Plan	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					

Table 9.18-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Building Department
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 briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	No Much of the Township is preserved lands associated with the Delaware Water Gap park system.

**ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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





**Table 9.18-5. Administrative and Technical Capabilities**

Staff/Personnel Resource	Available?	Department/Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Land Use/Zoning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	Sussex County
<b>Technical/Staffing Capability</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Harold Pellow Assoc. J. Caldwell and Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Harold Pellow Assoc.
Planners or engineers with an understanding of natural hazards	Yes	As per need, Bids for Prof. Services.
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	Harold Pellow Assoc.
Staff with education/knowledge/training in low impact development	Yes	Harold Pellow Assoc.
Surveyor	Yes	Daniel Kent Inc.
Stormwater engineer	Yes	Harold Pellow Assoc.
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	Township Emergency Management Coordinator
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Construction Official
Other: Professionals trained in conducting damage assessments	Yes	As per need, Bids for Prof. Services.

**FISCAL CAPABILITY**

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

**Table 9.18-6. Fiscal Capabilities**

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Unsure
Capital Improvements Project Funding	CFO & Township Committee
Authority to Levy Taxes for Specific Purposes	Tax Asser
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	CFO & Township Committee





Financial Resource	Accessible or Eligible to Use?
Incur Debt through Special Tax Bonds	CFO & Township Committee
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	CFO & Township Committee
Development Impact Fees for Homebuyers or Developers	Township Committee
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 Sandyston.

**Table 9.18-7. 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?	Yes
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes Emergency info posted
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes—Facebook page for information. Share Sheriff’s page.
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 Sandyston.

**Table 9.18-8. 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	Fire Department – 10	25 plus years ago.
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-

N/A = Not Applicable. NP = Not Participating. - = Unavailable. TBD = To Be Determined.

**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 9.18-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) – Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geologic	Moderate
Hazardous Materials	Moderate
Hurricane and Tropical Storm	Moderate
Invasive Species	Moderate
Nor’Easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Strong
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.*

**NATIONAL FLOOD INSURANCE PROGRAM**

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

**Table 9.18-10. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	Construction
Who is your floodplain administrator? (name, department/position)	Robert W. Huber, 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?	November 2013
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program exceeds the minimum set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 27, 1994
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what they are.	No





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 FPA would welcome continuing education and certification training on floodplain management.
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, however, the Township has considered joining and would attend a CRS seminar if offered.
How many flood insurance policies are in force in your jurisdiction?*	8 policies
-What is the insurance in force? -What is the premium in force?	
How many total loss claims have been filed in your jurisdiction?*	5 claims
-How many claims are still open or were closed without payment? -What were the total payments for losses?	\$209,806 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 13, 2020  
Reference: FEMA 2020

### 9.18.5 Hazard Event History Specific to the Jurisdiction

Sussex County has a history of hazard events, as detailed in Section 4 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles in Section 4.3 (Hazards of Concern) and includes a chronology of events that affected Sussex County and its jurisdictions. The Township of Sandyston’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Sussex County. Table 9.17-11 provides details regarding municipal-specific loss and damages the jurisdiction experienced during hazard events. Information provided in the table below is based on reference material or local sources.

**Table 9.18-11. Hazard Event History**

Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 22, 2016 - January 24, 2016	DR-4264: Severe Winter Storm and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 <sup>rd</sup> and 24 <sup>th</sup> .	None identified
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 sought \$3,250 in reimbursements for teleworking equipment and cleaning supplies.

Source: FEMA 2020, NOAA NCEI 2020

### 9.18.6 Jurisdiction-Specific Vulnerabilities and Hazard Ranking

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Refer to Section 4.2 (Methodology and Tools) and Section 4.4 (Hazard Ranking) for a detailed summary for the Township of Sandyston risk assessment results and data used to determine the hazard ranking discussed later in this section.





### HAZARD AREA EXTENT AND LOCATION

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

### REPETITIVE FLOOD LOSSES

The following summarizes the repetitive and severe repetitive flood losses in the Township of Sandyston.

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019

Note: The number of SRL properties excludes RL properties.

### CRITICAL FACILITIES AND LIFELINES

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

**Table 9.18-12. Critical Facilities and Lifelines Flood Exposure**

Name	Type	Exposure	
		1% Event	0.2% Event
Sandyston Township Building	Post Office		X
21-6 Kittatinny Lake Dam	Dam	X	X
21-13 Flat Brook Valley Dam	Dam	X	X
21-18 Stony Lake Dam	Dam	X	X
21-23 Lake Ashroe Dam	Dam	X	X
21-26 Morgan Pond Dam	Dam	X	X
21-28 Lance Mill Dam	Dam	X	X
21-49 Harper Dam	Dam	X	X
22-113 Skellinger Lake Dam	Dam	X	X

Source: Sussex County Planning Partnership 2020

Note:

\*Identified lifeline

### IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- Scattered privately-owned homesites are located along the Delaware River. Some of these properties are located in the Special Flood Hazard Area, with development requiring floodproofing.
- Little Flat Brook crosses Degroat Road just east of the road’s intersection with Route 206. The Brook experiences occasional riverine flooding.
- Lack of forest management of federal and private lands has increased fire risk for residents of Sandyston.





- Lake communities in Sandyston face snow removal issues owing to a lack of suitable land on which snow can be cleared from roads and placed.

**HAZARD RANKING**

This section summarizes the jurisdiction’s primary hazards of concern based on identified problems, impacts and the results of the risk assessment as presented in Section 4 (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 development of mitigation actions, targeting those hazards with the highest level of concern.

As discussed in Section 4.4 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Sussex County as a whole. Therefore, the Township of Sandyston ranked each hazard’s degree of risk 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 hazards for the Township of Sandyston. The Township of Sandyston has reviewed the Sussex 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 of Sandyston agreed with the calculated hazard rankings.

**Table 9.18-13. Township of Sandyston Hazard Ranking**

<b>Dam Failure</b>	<b>Disease Outbreak</b>	<b>Drought</b>	<b>Earthquake</b>	<b>Flood</b>	<b>Geologic</b>	
Medium	Medium	Medium	Low	Medium	High	
<b>Hazardous Materials</b>	<b>Hurricane and Tropical Storm</b>	<b>Invasive Species</b>	<b>Nor’Easter</b>	<b>Severe Weather</b>	<b>Severe Winter Weather</b>	<b>Wildfire</b>
Medium	High	Medium	High	High	High	Low

**9.18.7 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 2016 HMP. Actions that are carried forward as part of this plan update are included in Table 9.17-15 and Table 9.17-16 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 9.18-14. Status of Previous HMP Mitigation Actions**

2016 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 #
Sandyston-1 (new)	Sandyston Township Sunrise Communications Tower Generator	Township OEM	Completed using a FEMA grant; project total \$6,173.		





2016 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 #
Sandyston-2 (new)	To ensure continuity of operations at critical facilities and municipal buildings, install generator Wiring at Municipal Complex	Township OEM	Completed using a FEMA grant; project total \$9,300.		
Sandyston-3 (new)	Emergency Generator for DPW Garage & Fire Station #2	Township OEM	Completed using a FEMA grant; project total \$21,000.		
Sandyston-4 (old #1)	Implement Fire Wise Program throughout the Township.	Fire Department, OEM	Ongoing Capability		
Sandyston-5 (old #2)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	Township OEM	Ongoing Capability (Follow-up)		
Sandyston-6 (new)	Install early warning devices in the Township.	Fire Department	In Progress	X	2021-Sandyston-001
Sandyston-7 (new)	Protect school building from severe weather related incidents	Board of Education	No Progress	X	2021-Sandyston-002
Sandyston-8 (new)	Purchase a mini pumper four-wheel drive unit with extended crew cab to support wildland and structural fires.	Fire Department	No Progress	X	2021-Sandyston-003
Sandyston-9 (new)	Work with the PUC and FCC for regulations requiring phone providers to maintain phone service during loss of power.	Township	Ongoing Capability		
Sandyston-10 (new)	Protect roadway crossing the Delaware River from damages and debris during hazard events.	Private Toll Bridge Owner/Operator	No progress	X	2021-Sandyston-005
Sandyston-11 (new)	Initiate a program to verify that all dams in the community meet the state safety requirements.	NJDEP, Dam Owners, Township	Ongoing Capability		

**PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Sandyston participated in a risk assessment workshop in October 2020 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Township of Sandyston participated in a mitigation action workshop in November 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Sussex County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; mitigation funding sources, and the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 *Selecting Appropriate Mitigation Measures for Floodprone Structures* (March 2007) and FEMA *Mitigation Ideas – A Resource for*





*Reducing Risk to Natural Hazards* (January 2013). Section 6 (Mitigation Strategy) and Appendix F (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

Table 9.17-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Sandyston would like to pursue in the future to reduce the effects of hazards. 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 four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as *High*, *Medium*, or *Low*. The table below summarizes the evaluation of each mitigation initiative, listed by action number.

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

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Table 9.18-15. 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-Sandyston-001	Sandyston Early Warning Systems	<p><b>Problem:</b> Sandyston Township has an early warning siren for hazard events. The sirens are located at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston Township Municipal Building along CR-645 and Fire Station #2 is located in Layton on CR-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is broken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township.</p>	New & Existing	All Hazards	1, 5	OEM	HMGP; BRIC; Township Funds	Increased emergency warnings	Low	Within 3 years	High	LPR	ES
		<p><b>Solution:</b> The Township proposes to replace and augment its early warning capabilities at the Fire Station with a siren with enhanced reach and functionality.</p>											
2021-Sandyston-002	Sandyston-Walpack School Retrofits	<p><b>Problem:</b> The Sandyston-Walpack School building is not protected from severe weather events.</p>	Existing	Severe Weather; Severe Winter Weather	1, 2	Sandyston-Walpack Board of Education	Board of Education; Township funds	Increased ability to withstand hazards	Medium	Within five years	High	SIP	PP
		<p><b>Solution:</b> The Township and Board of Education propose to retrofit the school building to withstand hazard events such as snowfall.</p>											
2021-Sandyston-003	Brush Truck and Utility Truck Acquisition	<p><b>Problem:</b> Sandyston Township is a largely rural and wooded community. Roads in the Township are narrow, and brush fires require a quick response by the Department. Additionally, a large portion of Sandyston is preserved open space associated with the Delaware Water Gap. The high amount of visitation and tourism associated with the recreation facilities magnifies the importance of emergency response from the Township, though it has limited resources to acquire equipment and vehicles.</p>	New	Earthquake; Flood Geologic; Hazardous Materials Hurricane and Tropical Storm; Nor'Easter ; Severe Weather; Severe Winter Weather; Wildfire	1, 2, 5, 6	Fire Department	Assistance to Firefighters Grant Program; Township funds	Enhanced response for fire facilities	Medium	Within five years	\$150,000	SIP	ES
		<p><b>Solution:</b> The Township proposes to purchase a brush truck and utility truck</p>											





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
		to augment the Township’s response to fire and rescue incidents. The brush truck is the first line of defense in a brush fire and can traverse rough terrain. The utility truck will tow the Township’s utility terrain vehicle in the case of emergency. The acquisition would enable enhanced response from the Township’s fire department and greater capabilities during all types of hazard events. The Utility Truck will tow the UTV to emergency locations where traditional towing vehicles cannot navigate due to road size or terrain limitations.											
2021-Sandyston-004	Phone Service Retention	<p><b>Problem:</b> Sandyston Township experiences cable outages that impact phone lines during severe storm events.</p> <p><b>Solution:</b> The Township proposes to work with the PUC and FCC to enact regulations requiring phone providers to maintain phone service during loss of power.</p>	Existing	All Hazards	1, 2, 3, 4, 5, 6	Century Link; Optimum; PUC	Staff time/Township funds	Increased phone/cable reliability	Low	Within five years	High	LPR	PI
2021-Sandyston-005	Delaware River Bridge Retrofit	<p><b>Problem:</b> The Dingman’s Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding.</p> <p><b>Solution:</b> The Township proposes to protect the roadway crossing the Delaware River from damages and debris during hazard events. The Township will work with the bridge’s owners, the County, and NJDEP to protect the bridge from debris during a flood.</p>	Existing	Flood Geologic; Hazardous Materials Hurricane and Tropical Storm; Nor’Easter ; Severe Weather; Severe Winter Weather;	1, 2, 5, 6	NJDEP; Sussex County; Private owners; Township Administration	Private funds; BRIC; NJDOT; HMGP	Continued bridge access following hazard events	High	Within five years	High	SIP	PP
2021-Sandyston-006	Disaster Debris Management Plan	<p><b>Problem:</b> The Township lacks a Disaster Debris Management Plan.</p> <p><b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan. The Plan will include any</p>	N/A	All Hazards	5	Township OEM, Administration	Township budget	Increased disaster capabilities	Staff time	2 years	High	LPR	ES





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
		necessary mutual aid discussions to supplement the Township’s capabilities.											
2021-Sandyston-007	Reverse 911	<p><b>Problem:</b> The Township lacks a reverse 9-1-1 notification system to warn residents about hazard events.</p> <p><b>Solution:</b> The Township proposes to acquire and implement a reverse 9-1-1 notification system to inform all residents of hazard events and make the Township safer.</p>	New	All Hazards	1, 3, 4, 6	Township OEM, Administration	Township budget	Enhanced warning capabilities to safeguard residents	Low	Within three years	High	EAP	PI
2021-Sandyston-008	Repetitive Loss Properties	<p><b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 1 repetitive loss property but other properties may be impacted by flooding as well.</p> <p><b>Solution:</b> Conduct outreach to 30 flood-prone property owners, including 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	2	NFIP Floodplain Administrator, supported by homeowners	FEMA HMGP and FMA, local cost share by residents	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	\$500,000	3 years	High	SIP	PP
2021-Sandyston-009	Firewise Participation	<p><b>Problem:</b> The Township had participated in the Firewise program between 2014-2019, and the plan has now expired. The Township seeks to re-enter the Firewise program.</p> <p><b>Solution:</b> The Township proposes to undertake the documentation and process necessary to re-enter the Firewise program and undertake associated mitigation activities.</p>	Existing	Wildfire	5	Township OEM: Fire Department ; NFPA; NJ State Forest Service	Staff Time	Enhanced community preparedness	Low – staff time	Within one 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:

BRIC	Building Resilient Infrastructure and Communities
FMA	Flood Mitigation Assistance Grant Program
HMGF	Hazard Mitigation Grant 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 9.18-16. Summary of Evaluation and Action Priorities

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	Total	High / Medium / Low
2021-Sandyston-001	Sandyston Early Warning Systems	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High ⚠
2021-Sandyston-002	Sandyston-Walpack School Retrofits	1	1	1	1	1	1	0	1	1	0	1	1	1	1	12	High
2021-Sandyston-003	Mini-Pumper and Utility Truck Acquisition	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-Sandyston-004	Phone Service Retention	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-Sandyston-005	Delaware River Bridge Retrofit	1	1	1	1	1	0	0	1	1	0	1	1	1	1	11	High
2021-Sandyston-006	Disaster Debris Management Plan	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-Sandyston-007	Reverse 911	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-Sandyston-008	Repetitive Loss Properties	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021-Sandyston-009	Firewise Participation	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 9.18-17. 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
Dam Failure	X		X					X
Disease Outbreak	X		X					X
Drought	X		X					X
Earthquake	X		X			X		X
Flood	X	X	X			X		X
Geologic	X		X			X		X
Hazardous Materials	X		X			X		X
Hurricane and Tropical Storm	X		X			X		X
Invasive Species	X		X					X
Nor'Easter	X		X			X		X
Severe Weather	X	X	X			X		X
Severe Winter Weather	X		X			X		X
Wildfire	X		X		X	X		X

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard

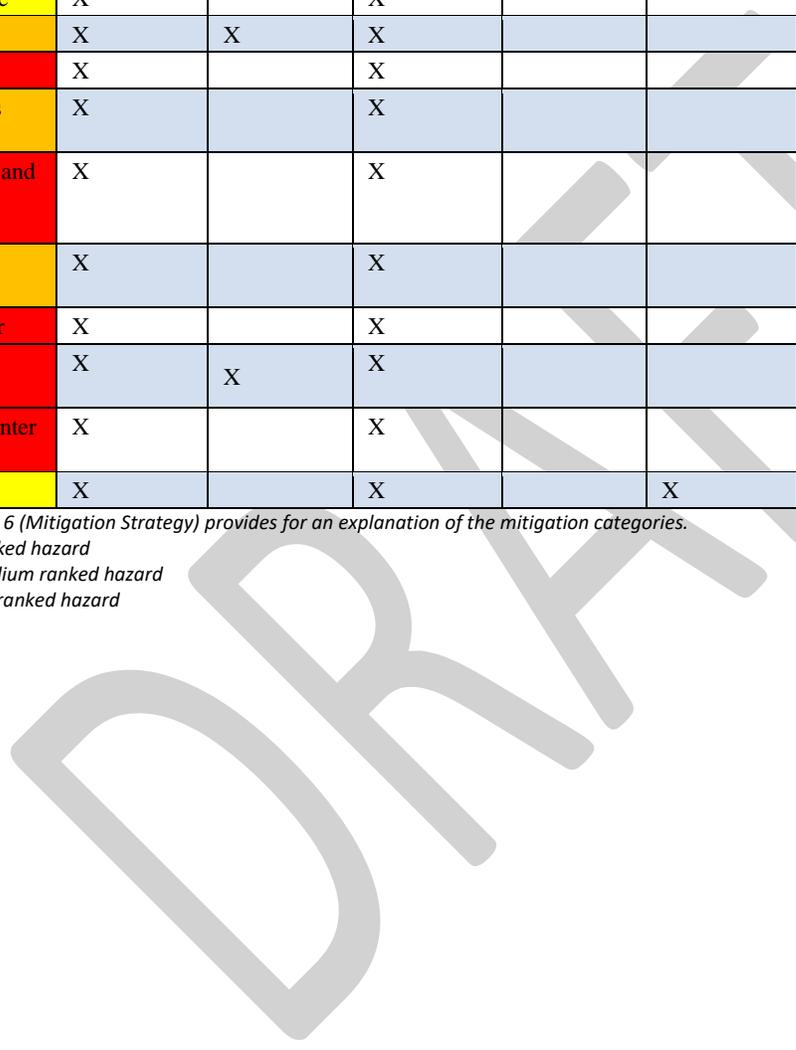




Figure 9.18-1. Township of Sandyston Hazard Area Extent and Location Map 1

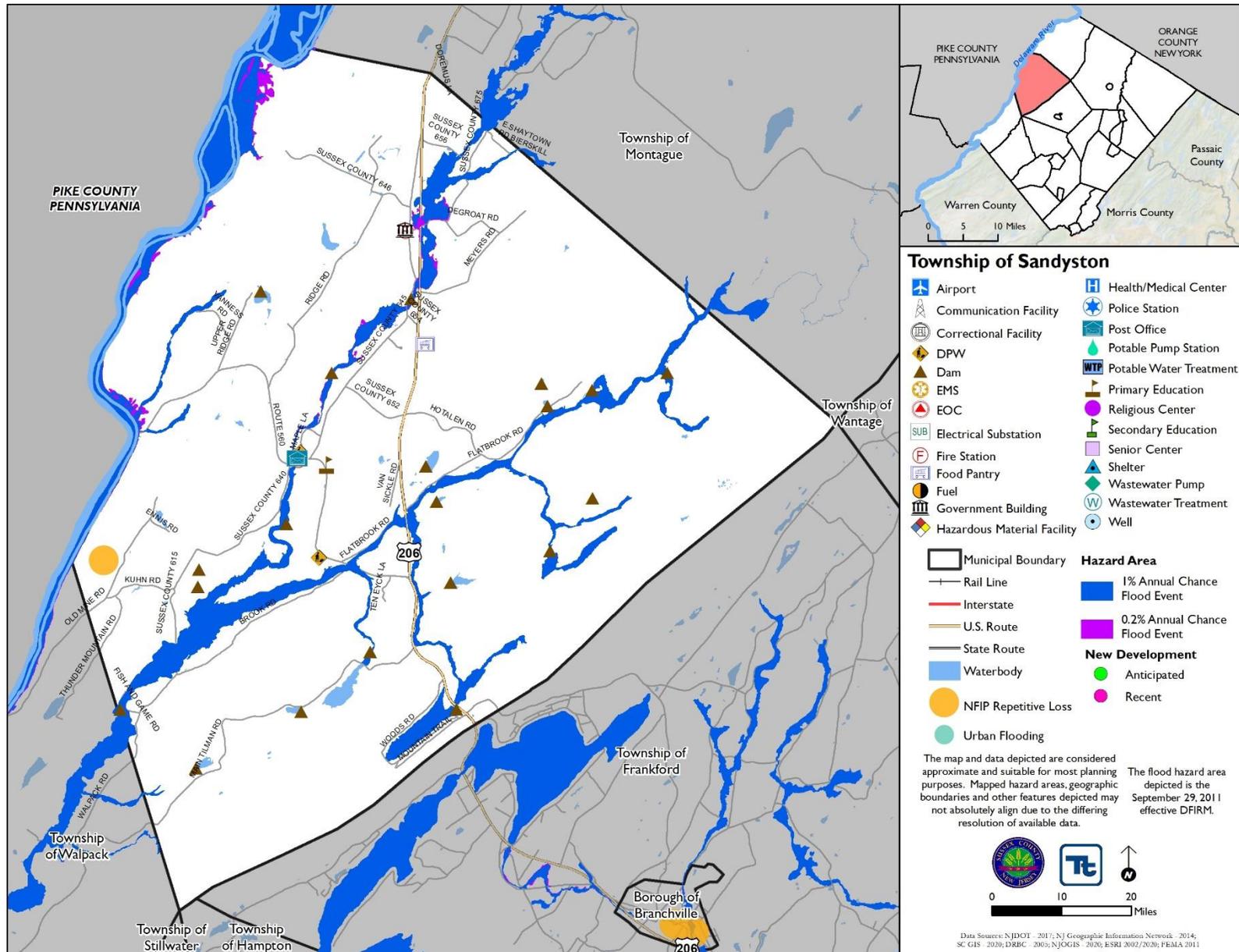




Figure 9.18-2. Township of Sandyston Hazard Area Extent and Location Map 2

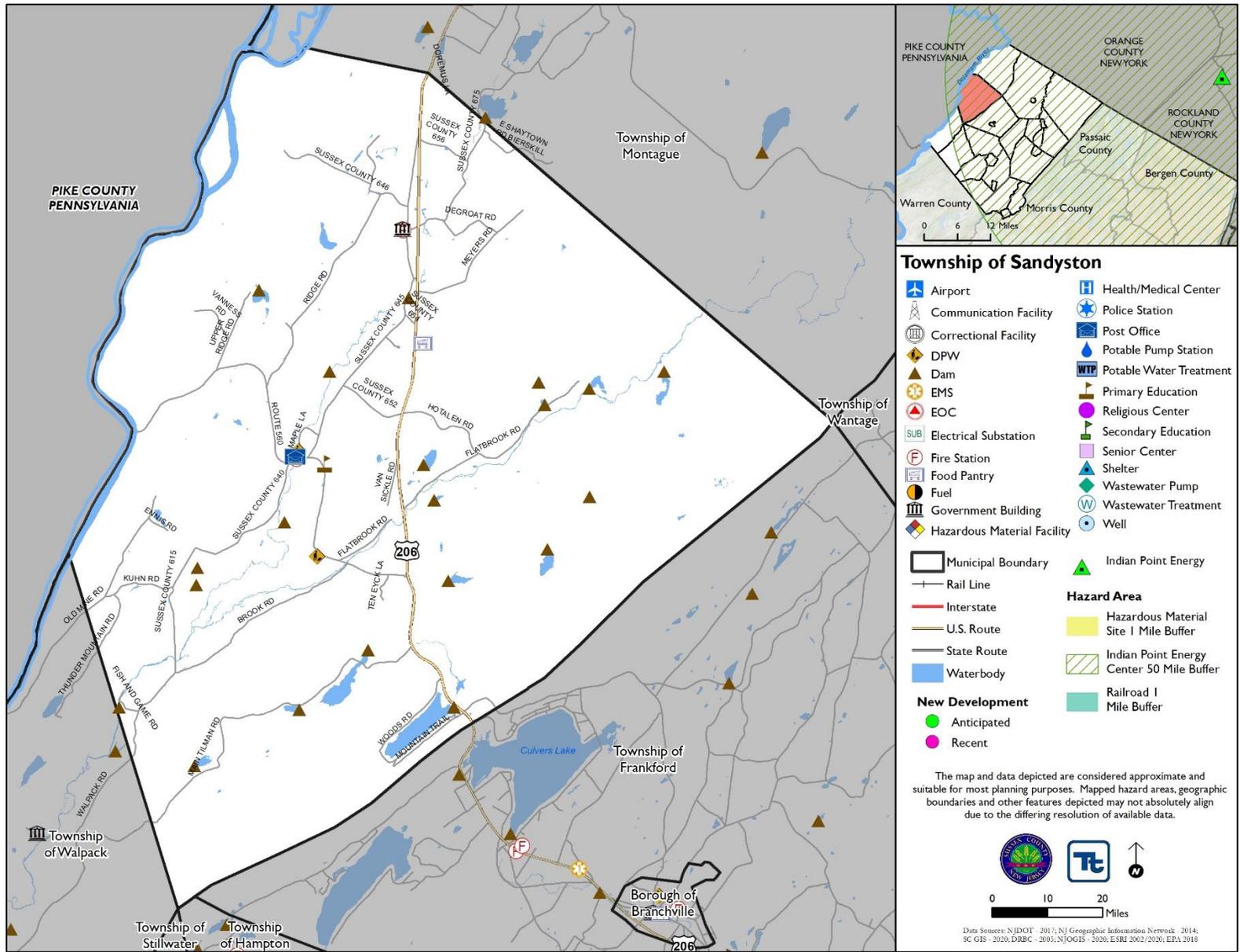
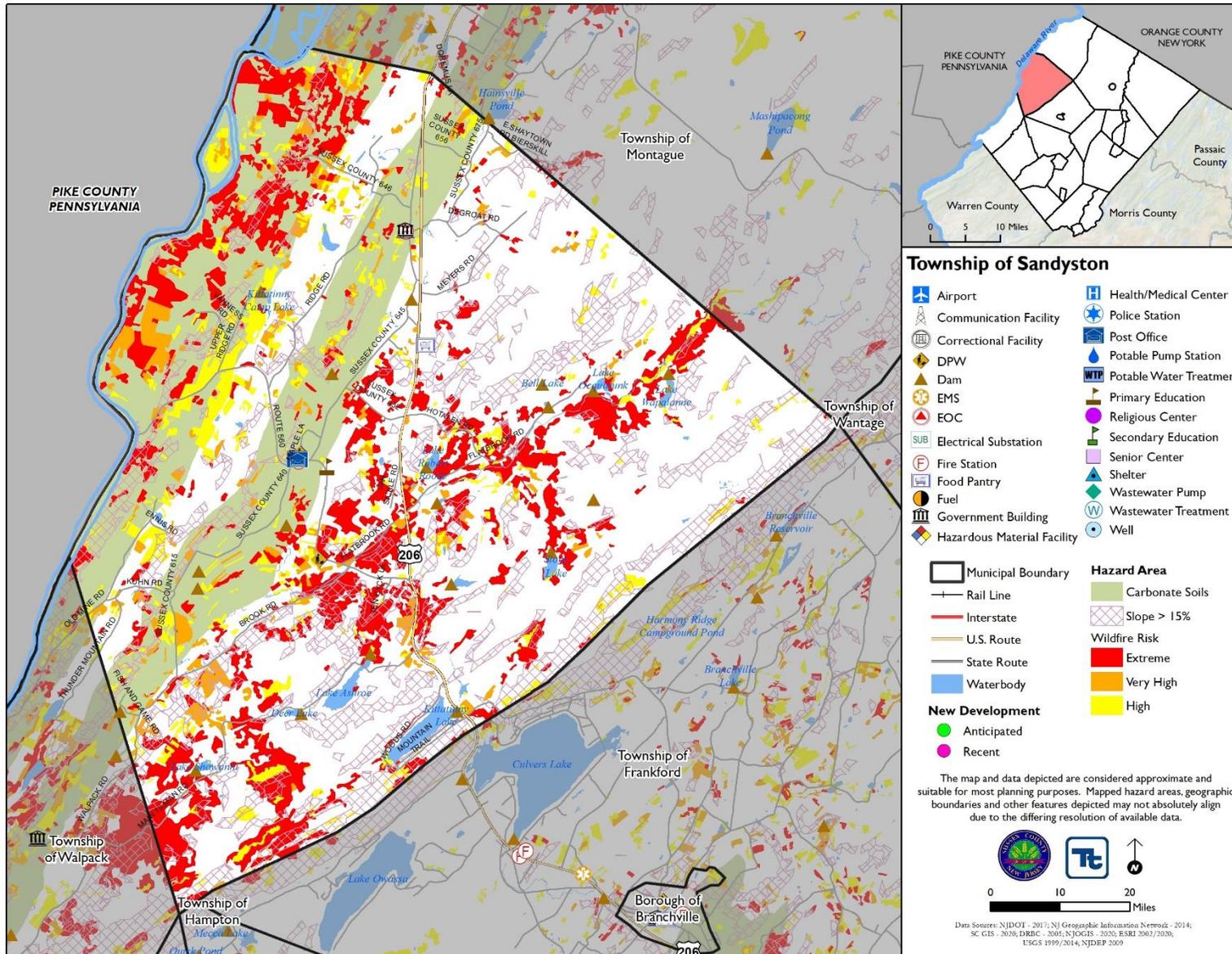




Figure 9.18-3 Township of Sandyston Hazard Area Extent and Location Map 3





Action Worksheet			
<b>Project Name:</b>	Sandyston Early Warning Systems		
<b>Project Number:</b>	2021-Sandyston-001		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	All Hazards		
<b>Description of the Problem:</b>	Sandyston Township has an early warning siren for hazard events. The sirens are located at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston Township Municipal Building along CR-645 and Fire Station #2 is located in Layton on CR-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is broken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The Township proposes to replace and augment its early warning capabilities at the Fire Station with a siren with enhanced reach and functionality.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	N/A	<b>Estimated Benefits (losses avoided):</b>	Increased emergency warnings
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	1, 5
<b>Estimated Cost:</b>	Low	<b>Mitigation Action Type:</b>	Local Plans and Regulations
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within three years
<b>Estimated Time Required for Project Implementation:</b>	6 months	<b>Potential Funding Sources:</b>	HMGP; BRIC; Township Funds
<b>Responsible Organization:</b>	Township OEM; Fire Department	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	-
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	Sirens fail	\$0	Response inhibited
	Alternate communications	Medium	Cost prohibitive
	Siren enhancements	Low	Enhanced response capabilities
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Sandyston Early Warning Systems	
<b>Project Number:</b>	2021-Sandyston-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
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 capital funding.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Addresses all hazards
Timeline	1	
Agency Champion	1	Township OEM; Fire Department
Other Community Objectives	1	
<b>Total</b>	13	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Delaware River Bridge Retrofit		
<b>Project Number:</b>	2021-Sandyston-005		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood; Geologic; Hazardous Materials; Hurricane and Tropical Storm; Nor'Easter; Severe Weather; Severe Winter Weather		
<b>Description of the Problem:</b>	The Dingman's Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The Township proposes to protect the roadway crossing the Delaware River from damages and debris during hazard events. The Township will work with the bridge's owners, the County, and NJDEP to protect the bridge from debris during a flood.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	N/A	<b>Estimated Benefits (losses avoided):</b>	Continued bridge access following hazard events
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	1, 2, 5, 6
<b>Estimated Cost:</b>	High	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within five years
<b>Estimated Time Required for Project Implementation:</b>	2 years	<b>Potential Funding Sources:</b>	Private funds; BRIC; NJDOT; HMGP
<b>Responsible Organization:</b>	NJDEP; Sussex County; Private owners; Township Administration	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	-
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	High	Bridge damage
	Bridge abandonment/reconstruction	High	Not feasible
	Bridge retrofit	High	Most cost effective
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Delaware River Bridge Retrofit	
<b>Project Number:</b>	2021-Sandyston-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	0	
Fiscal	0	Project will require capital funding from public/private
Environmental	1	
Social	1	
Administrative	0	
Multi-Hazard	1	Addresses all hazards
Timeline	1	
Agency Champion	1	NJDEP; Sussex County; Private owners; Township Administration
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Repetitive Loss Properties		
<b>Project Number:</b>	2021-Sandyston-008		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Weather		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 1 repetitive loss property but other properties may be impacted by flooding as well.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Conduct outreach to flood-prone property owners, including 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).		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	1% annual chance flood event + freeboard ( <i>in accordance with flood ordinance</i> )	<b>Estimated Benefits (losses avoided):</b>	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
<b>Useful Life:</b>	Acquisition: Lifetime Elevation: 30 years (residential)	<b>Goals Met:</b>	2
<b>Estimated Cost:</b>	\$500,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	6-12 months
<b>Estimated Time Required for Project Implementation:</b>	Three years	<b>Potential Funding Sources:</b>	FEMA HMGP and FMA, local cost share by residents
<b>Responsible Organization:</b>	NFIP Floodplain Administrator, supported by homeowners	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	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)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Repetitive Loss Properties	
<b>Project Number:</b>	2020-Sandyston-008	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	1	Families moved out of high-risk flood areas.
<b>Property Protection</b>	1	Properties removed from high-risk flood areas.
<b>Cost-Effectiveness</b>	1	Cost-effective project
<b>Technical</b>	1	Technically feasible project
<b>Political</b>	1	
<b>Legal</b>	1	The Township has the legal authority to conduct the project.
<b>Fiscal</b>	0	Project will require grant funding.
<b>Environmental</b>	1	
<b>Social</b>	0	Project would remove families from the flood prone areas of the Township.
<b>Administrative</b>	0	
<b>Multi-Hazard</b>	1	Flood, Severe Weather
<b>Timeline</b>	0	
<b>Agency Champion</b>	1	NFIP Floodplain Administrator, supported by homeowners
<b>Other Community Objectives</b>	1	
<b>Total</b>	10	
<b>Priority (High/Med/Low)</b>	High	