



9.33 TOWNSHIP OF RANDOLPH

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

9.33.1 Hazard Mitigation Planning Team

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

Table 9.33-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name / Title: Bill Wagner, OEM Coordinator Address: 502 Millbrook Avenue, Randolph, NJ 07869 Phone Number: 973-214-7629 Email: billwagner105@gmail.com	Name / Title: Stephen Mountain, Township Manager Address: 502 Millbrook Avenue, Randolph, NJ 07869 Phone Number: 973-989-7060 Email: smountain@randolphnj.org
NFIP Floodplain Administrator	
Name / Title: Paul Ferriero, Township Engineer Address: 502 Millbrook Avenue, Randolph, NJ 07869 Phone Number: 973-989-7068 Email: pferriero@randolphnj.org	

9.33.2 Jurisdiction Profile

The Township of Randolph is characterized as a suburban community located in the west – central portion of Morris County. The twenty-one (21) square mile Township is bordered on the south by Mendham Township, to the west by Chester Township and Roxbury Township, by the Town of Dover, Mine Hill and Rockaway Townships and Victory Gardens Borough to the north and Denville Township, Morris Township and Parsippany Township to the east.

New Jersey State Highway Route 10 traverses the Township in an east – west direction through the northern part of the community. It provides access to the regional highway network, which includes Interstate Routes 80 and 287 and State Highway Route 46. These other highways are located nearby in the adjacent communities noted above. The Township is also traversed from southeast to northwest by Sussex Turnpike, a two-lane arterial, which is an old colonial route.

Geologically, Randolph is located in the Highlands Physiographic Province. As part of the Appalachian Mountain range, the Highlands are characterized by alternating flat-topped ridges and deep valleys. Travelers to the Township, especially from the east, note the dramatic rise in elevation entering the community via Hanover Avenue, Sussex Turnpike and Route 10. A similar elevation change occurs when entering the Township from the west on Route 10 from the flat topography of Succasunna. Several Category 1 streams traverse the Township, including the Black River, Mill Brook, India Brook and Jackson Brook as well as high quality streams such as Den Brook.

According to the U.S. Census, the 2010 population for the Township of Randolph was 25,734. The estimated 2017 population was 25,918, less than a one-percent increase from the 2010 Census. Data from the 2017 U.S.





Census American Community Survey indicate that 5.5 percent of the population is 5 years of age or younger and 12.6 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.

9.33.3 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. The Township is located partially in the Highlands Preservation Area. Table 9.33-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. The figures at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development.

Table 9.33-2. Recent and Expected Future Development

Type of Development	2015	2016	2017	2018	2019
Number of Building Permits for New Construction Issued Since the Previous HMP					
Single Family	24	29	66	35	
Multi-Family					
Other (commercial, mixed-use, etc.)		5	3	2	
Property or Development Name	Type of Development	# of Units / Structures	Location address and/or block and lot	Known Hazard Zone(s) *	Description / Status of Development
Recent Major Development and Infrastructure from 2015 to Present					
517 Route 10 East	Commercial	3	Block 112 Lot 1	None	Construction of a Strip Mall & Bank, and Major Remodel of Existing Diner
			State Highway 10 at Center Grove Road		
SEA Middlebury LLC/Kozak	Commercial	1	Block 18.01 Lot 1.01	None	Office/Warehouse Building
			Middlebury Blvd		35,000 Square Feet
Shelter Development	Residential	3	Block 111 Lots 19, 20 & 21	None	125 Unit Congregate Care Community
			Quaker Church Road		
Dickerson Dental	Commercial	1	Block 76 Lot 7 & 8	None	Medical/Office Building
			State Highway 10		12,500 Square Feet
Dawson Brook	Residential	30	Block 49 Lot 6	None	30 Age Restricted
			Calais Road		Town Home Units
GRMAE LLC (Rosie's)	Commercial	1	Block 119 Lot 131	None	Addition to Existing Restaurant
			Sussex Turnpike		
Hebrew Academy Of Morris County	Educational	1	Block 44 Lots 26, 27, 31 & 32 Dover Chester Road	None	New School Building &
					Athletic Field
Randolph Reality, LLC	Residential	105	Block 101 Lots 22.01 & 22.02 Brookside Rd & Old Shunpike	None	105 Residential Town Home Units
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
Gordon Randolph MAB	Commercial	2	Block 44 Lots 14 & 14.02	None	Bank (3,680 SF) &



			State Highway 10		Retail (9,900 SF) Pad Sites
Grecco Realty	Commercial	4	Block 111 Lots 10 - 16	None	Shopping Center(80,560 SF) & Bank Pad
Japar	Commercial	1	Block 120 Lot 5	None	Retail/Office (6,050 SF)
			State Highway 10		Addition to Day Care Facility
1.01 Aspen Drive, LLC	Commercial	1	Block 18 Lot 1.01	None	Office/Warehouse
			Aspen Drive		(40,180 Square Feet)
The Heller Group	Commercial	3	Block 119 Lot 130	None	Shopping Center
			Sussex Trpk & W Hanover		63,300 Square Feet
1.01 Middlebury Blvd, LLC	Commercial	1	Block 18.01 Lot 1.01	None	Office/Manufacturing/Warehouse
			Middlebury Blvd		(29,800 Square Feet)
Elbaum Homes at Pleasant Ridge Inc.	Commercial	1	Block 44 Lot 10	None	Medical Office Building
			State Highway 10		(22,000 Square Feet)
MLR Holdings	Commercial	3	Block 86, lot 63.01	None	Recreation fields-3
Salerno Duane Randolph Realty	Commercial	2	Block 44, Lot 11	None	Self Storage Facility (80,000sf),
Metro Storage	Commercial	1	Block 145, Lot 2	None	Self Storage Facility (118,000sf),
Progress Profiles	Commercial	1	Block 18.01, Lot 1.11		Office/Industrial (33,000 sf)
Ten East Realty, LLC	Commercial	2	Block 44, Lots 1,2 & 56		Car Dealership, Gas Station, Convenience Store
Wawa	Commercial	2	Block 137, Lot 5		Gas Station & Convenience Store
Marks Corner LLC	Commercial	1	Block 119.03, Lot 1		Retail (8,400 SF) Pad Sites
Elbaum Homes at Pleasant Ridge Inc.	Residential	2	Block 97, Lots 26, 27.01, 27.02		15 Townhomes
Toll Brothers	Residential		Block 44, Lot 4		135 Residential Townhomes
Gateways	Residential	3	Block 77, Lots 30 & 31		Apartments (88 units)
Canoe Brook	Residential	6	Block 44, Lot 25		Apartments (199 units)
Affordable Housing	Residential	1	Block 119, Lot 130		Apartment Building (150 units)
Avalon Bay	Residential	10	Block 42, Lot 5		Apartment Buildings/Townhouses (300 units)

* Only location-specific hazard zones or vulnerabilities identified.

9.33.4 Capability Assessment

The Township of Randolph performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (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 legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (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 in Capability Assessment (Section 5). The Township of Randolph 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 Randolph and where hazard mitigation has been integrated.

Table 9.33-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years ? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes		
<i>Comment: Building Department, State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) Chapter 12 adopted; consisting of a Construction Official, Building Subcode Official, Plumbing Subcode Official, Electrical Subcode Official, Fire Protection Subcode Official, Elevator Subcode Official and such other subcode officials for such additional subcodes as the Commissioner of the Department of Community Affairs, State of New Jersey, shall hereafter adopt as part of the State Uniform Construction Code.</i>					
Zoning Code	Yes	Local	Yes		
<i>Comment: Land Development Code, Ordinance 22-19 adopted November 21, 2019 (Supp. No. 19); Zoning Board of Adjustment is appointed by the Township Council; Article III Zoning - the provisions of this Article shall be held to be minimum requirements adopted for the promotion of the public health, safety, morals and general welfare, consistent with the purposes set forth at N.J.S.A. 40:55D-2. Any deviation proposed from the use and bulk requirements of this Article shall require a variance pursuant to N.J.S.A. 40:55D-70c or d or N.J.S.A. 40:55D-60a.</i>					
Subdivisions	Yes	Local	Yes	Yes	
<i>Comment: Township Council Land Development Ord. Article V. The purpose of good subdivision and site design is to create a functional and attractive development, to minimize adverse impacts, and to ensure a project will be an asset to a community. Development laid out to avoid adversely affecting groundwater and aquifer recharge; reduce cut and fill; avoid unnecessary impervious cover; to prevent flooding.</i>					
Stormwater Management	Yes 03/06/2014	Local	Yes	Yes	
<i>Comment: Township Council Land Development Ord. Article VIII (Stormwater Control) March 6 2014. 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 measures and proper maintenance plans. Nonstructural measures include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site. Source control plans should be developed based upon physical site conditions and the origin, nature, and the anticipated loading of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.</i>					
Post-Disaster Recovery	No				
<i>Comment:</i>					
Real Estate Disclosure	Yes	State			



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<i>Comment: Division of Consumer Affairs 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 proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</i>					
Growth Management	No				
<i>Comment:</i>					
Site Plan Review	Yes	Local	Yes	Yes	
<i>Comment: Refer to the Township Council Land Development Ord. Article V above</i>					
Environmental Protection	No				
<i>Comment:</i>					
Flood Damage Prevention	Yes	Federal, State, Local	Yes		
<i>Comment: Chapter 22 (Flood Management). It is the purpose of this chapter to promote the public health, safety and general welfare, to qualify the township and its property owners for benefits of the National Flood Insurance Program by fulfilling the standards of 44 CFR 59, section 60.3(d), and to minimize public and private losses due to flood conditions in specific areas.</i>					
Wellhead Protection	No				
<i>Comment: There are wellhead protection areas in the Township according to the Stormwater Management Plan (Figure 6)</i>					
Emergency Management	No				
<i>Comment:</i>					
Climate Change	No				
<i>Comment:</i>					
Disaster Recovery Ordinance	No				
<i>Comment:</i>					
Disaster Reconstruction Ordinance	No				
<i>Comment:</i>					
Other					
<i>Comment:</i> <ul style="list-style-type: none"> • Municipal Separate Storm Sewer System (MS4) – Yes, State and Local, DPW, Ordinance 13-10 • Article IV (Regulations for Development Within Steep Slope Areas) Local Township Council, Land Development Ord. Article IV 					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	
<i>Comment: Planning Board, 2006 Master Plan; Master Plan Re-exam in July 2016. General goal is to permit development in a manner to protect environmentally sensitive areas and features.</i>					
Capital Improvement Plan	Yes	Local			
<i>Comment: Township Council Capital Improvement Plan; Supplemental 6 Year Plan to be included with Municipal Budget</i>					
Disaster Debris Management Plan	Yes	Local			
<i>Comment: Permanent site identified for debris collection; mulch and distribute; curb-side collection program; written plan from the State to store vegetative material; health dept got the certificate and health dept manages it; three alternate sites for major storms</i>					
Floodplain or Watershed Plan	No				
<i>Comment:</i>					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Stormwater Management Plan	Yes	Local			
<i>Comment: Planning Board Storm Water Management Plan 2005 Plan, part of NJDEP Permit (03/21/2005)</i>					
Stormwater Pollution Prevention Plan	Yes	Local	Yes		
<i>Comment: 2008; process of updating the plan and updating under the NJDEP-required format; outlines responsibilities for maintenance of Township owned facilities and outreach to private owned facilities</i>					
Urban Water Management Plan	No				
<i>Comment:</i>					
Habitat Conservation Plan	No				
<i>Comment:</i>					
Economic Development Plan	No				
<i>Comment:</i>					
Shoreline Management Plan	N/A				
<i>Comment:</i>					
Community Wildfire Protection Plan	No				
<i>Comment:</i>					
Community Forest Management Plan	No				
<i>Comment:</i>					
Transportation Plan	Yes 01/16/2006	Local			
<i>Comment: Planning Board 2006 Master Plan Circulation Element</i>					
Agriculture Plan	No				
<i>Comment:</i>					
Climate Action Plan	No				
<i>Comment:</i>					
Tourism Plan	No				
<i>Comment:</i>					
Business Development Plan	No				
<i>Comment:</i>					
Other					
<i>Comment:</i>					
<ul style="list-style-type: none"> Open Space Plan – Yes 1/03/14, Local Environmental Committee, Open Space Program Acquisition and Trail Plan 					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	
<i>Comment: OEM EOP 2018; includes many of the hazards included in the hazard mitigation plan (i.e., flood, earthquake, landslide, hurricane, storm, epidemic, hazardous materials)</i>					
Threat & Hazard Identification & Risk Assessment (THIRA)	No				
<i>Comment: Informal Risk Assessment Planning (County/Local Emergency Training)</i>					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Post-Disaster Recovery Plan	No				
<i>Comment:</i>					
Continuity of Operations Plan	Yes				
<i>Comment: Refer to the EOP annex</i>					
Public Health Plan	Yes				
<i>Comment: Refer to annex in the EOP; recently updated</i>					
Other					
<i>Comment:</i>					

Table 9.33-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes Building/Zoning
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	No Significantly Built Out

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.33-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board/Zoning Board of Appeals
Mitigation Planning Committee	No	Insert appropriate information
Environmental Board / Commission	Yes	Environmental & Historic Committee, advisory to Township Council
Open Space Board / Committee	No	Insert appropriate information
Economic Development Commission / Committee	Yes	Yes, Advisory to Council
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	SwiftReach
Maintenance program to reduce risk	Yes	Vegetation Management, Culvert Cleaning



Staff/Personnel Resource	Available?	Department/Agency/Position
Mutual aid agreements	Yes	Surrounding Communities, Morris County, Surrounding Counties
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Land Use Administrator/Township Consulting Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Consulting Engineer
Planners or engineers with an understanding of natural hazards	Yes	Township Consulting Engineer
Staff with training in benefit/cost analysis	Yes	Township Consulting Engineer
Staff with training in green infrastructure	Yes	Consulting Engineer
Staff with education/knowledge/training in low impact development	Yes	Consulting Engineer
Surveyor	Yes	Township Consulting Engineer
Stormwater engineer		
Personnel skilled or trained in GIS applications	Yes	Land Use Administrator/Township Consulting Engineer
Local or state water quality professional		
Scientist familiar with natural hazards in local area	Yes	Township Consulting Engineer
Emergency manager	Yes	Managers Office
Watershed planner	Yes	Consulting Engineer
Environmental specialist	Yes	Health Department, Engineering
Grant writers	Yes	Managers Office
Resilience Officer	No	
Other	No	

FISCAL CAPABILITY

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

Table 9.33-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes - Depends on Application
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes - Water and Sewer
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	

**EDUCATION AND OUTREACH CAPABILITY**

The table below summarizes the education and outreach resources available to the Township of Randolph.

Table 9.33-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes- Manager's Office
Do you have personnel skilled or trained in website development?	Yes - Manager's Office, IT, Consultant
Do you have hazard mitigation information available on your website? • If yes, briefly describe.	Yes Links to Stormwater Information, and information for citizens
Do you use social media for hazard mitigation education and outreach? • If yes, briefly describe.	Yes Facebook, Twitter
Do you have any citizen boards or commissions that address issues related to hazard mitigation? • If yes, briefly describe.	Yes Traffic Advisory, Environmental and Historic Committee
Do you have any other programs already in place that could be used to communicate hazard-related information? • If yes, briefly describe.	Yes Quarterly Newsletter, Weekly "E-Blast", Special Mailings
Do you have any established warning systems for hazard events? • If yes, briefly describe.	Yes SwiftReach, Social Media

COMMUNITY CLASSIFICATIONS

The table below summarizes the classifications for community programs available to the Township of Randolph.

Table 9.33-8. 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	Class 4	Jun-13
Storm Ready Certification	No		
Firewise Community Classification	No		
Sustainable Jersey	No		

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 9.33-9. Adaptive Capacity of Climate Change**

Criterion	Response
Does the municipality have access to resources to determine the possible impacts of climate change upon the municipality?	Yes
Is the administrative supportive of integrating climate change in policies or actions?	Yes
Is climate change already being integrated into current policies/plans or actions (projects/monitoring) within the municipality?	No

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low
Dam Failure	Medium-High
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Extreme Temperature	Medium
Flood	Medium
Geologic	Medium
Harmful Algal Bloom	Medium
Hazardous Substances	Medium
Infestation	Medium
Severe Weather	Medium
Severe Winter Weather	High
Wildfire	Medium

NATIONAL FLOOD INSURANCE PROGRAM

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

Table 9.33-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Consulting Engineer
Who is your floodplain administrator? (name, department/position)	Consulting Engineer
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date that your flood damage prevention ordinance was last amended?	1979
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways?	Meets
When was the most recent Community Assistance Visit or Community Assistance Contact?	Not listed in NJDEP's database
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 10 years in the Municipality



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?	No
<input type="checkbox"/> If so, what type of assistance/training is needed?	
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 Not enough NFIP Policies in township to make it worth it's while
How many flood insurance policies are in force in your jurisdiction?*	4 NFIP Policies 51 WYO Policies
How many total loss claims have been filed in your jurisdiction?*	4 NFIP Claims: \$1,764 22 WYO Claims: \$207,610
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 July 2019

ADDITIONAL AREAS OF EXISTING INTEGRATION

Planning

The Township of Randolph adopted a Master Plan in 2005. The 2005 Master Plan identified the following goals related to hazard mitigation:

1. Discourage development on the Township ridge lines and steeply sloped areas. Rooflines should be kept below the ridge line to preserve distant views; significant vegetation along the ridge lines should be maintained.
2. Protect the Township's critical water supply for future needs, in accordance with the principles of Federal and State laws.

Regulatory and Enforcement

The Township's Land Use Ordinance, Section 22 Flood Management consider flood hazard risks. The Township Planning Board uses the advice of Township professionals and the Emergency Management Coordinator to guide their decisions with respect to natural hazard risk management. The Planning Board or Zoning Board of Adjustment requires developers to take additional actions to mitigate flood hazard risk (The development shall be laid out to avoid adversely affecting ground water and aquifer recharge; to reduce cut and fill; to avoid unnecessary impervious cover; to prevent flooding; to provide adequate access to lots and sites; to protect scenic views; and to mitigate adverse effects of shadow, noise, odor, traffic, drainage and utilities on neighboring properties). Where there is a question as to the suitability of a lot or lots for their intended use due to factors such as size of usable lot area, rock formations, flood conditions, steep slopes, wetlands, inadequate sewage disposal, power line easements or similar circumstances, the Planning Board may withhold approval of the entire subdivision or site plan

Next year the Township will be updating their stormwater ordinance to incorporate Green Infrastructure in accordance with State requirements.



The Township is aware they will need to update their flood damage prevention ordinance when the new FEMA maps become effective.

Fiscal

Currently, the municipal/operating budget does not include line items for mitigation projects or activities. The Township does have a Capital Improvements Budget which includes budget for mitigation-related projects. The Township has planned for a number of pump station and sewerage/water infrastructure improvements totaling \$1,000,000.

9.33.5 Hazard Event History Specific to the Jurisdiction

Morris 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 4.4 (Hazard Profiles) and includes a chronology of events that affected Morris County and its jurisdictions. The Township of Randolph's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Morris County. Table 9.33-11 provides details regarding municipal-specific loss and damages the Township of Randolph experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.33-11. Hazard Event History

Date(s) of Event	Event Type (disaster declaration if applicable)	Morris County Designated?	Summary of Event	Summary of Local Damages and Losses
January 21-24, 2016	Severe Winter Storm and Snowstorm	Yes	Wind gusts up to 60 MPH produced blizzard conditions as visibilities dropped to one-quarter mile or less in spots. Snow began during the evening hours on the 22nd, then continued, heavy at times through the 23rd before ending early on the 24th. Snowfall totals included 30.0 inches in Long Valley, 29.0 inches in Madison, 26.0 inches in Budd Lake, 25.3 inches in Green Pond, 22.5 inches in Butler, 21.0 inches in Chatham, and 18.0 inches in Marcella. At one point during the storm, up to 270,000 customers were without power.	Snow removal and debris management
March 6-7, 2018	Severe Winter Storm and Snowstorm	Yes	12 to 24 inches of snow was observed across large parts of Morris County. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey,	This was two storms back to back; second event declared. Over 75% of the Township with a power loss during the first event. Generators were used to power the Library and Senior Center (shelter/warming station), Town Hall, and to run



Date(s) of Event	Event Type (disaster declaration if applicable)	Morris County Designated?	Summary of Event	Summary of Local Damages and Losses
			especially where the heaviest snow was reported. Many customers were still without power from the previous storm when this storm struck. Governor Murphy estimated about 350,000 customers state-wide lost power as a result of this second storm. Governor Phil Murphy declared a state of emergency which went into effect at 8 PM Tuesday March 6th.	pumps. The second event brought a few trees, limited power failures as the town was already being put back together. Road clearing of storm damages, snow removal and preparation.

9.33.6 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. Table 9.33-12 summarizes the Township of Randolph risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.



Table 9.33-12. Summary of Risk Assessment Results

Hazard of Concern	Hazard/ Scenario Area Evaluated	Population		Buildings		Economy (Loss)		Certainty Factor
Dam Failure	Partial or complete failure of a dam There are 13 dams in the Township, according to NJDEP.	Population impacted is dependent on the capacity of the dam, the extent of the dam failure inundation area and the severity of the failure.		The number of building impacted is dependent on the capacity of the dam, the extent of the dam failure inundation area and the severity of the failure.		Economic impacts include dam/building/infrastructure repairs; debris removal/disposal; utility impacts.		Low
Disease Outbreak	Disease Outbreaks which include: Mosquito-Borne Diseases, Tick-Borne Diseases, Campylobacteriosis, Influenza, Mumps, Ebola	Population impacted is dependent on the disease and severity of the outbreak; in some cases immuno-compromised persons are more vulnerable.		Structural impacts due to disease outbreak would be limited.		Economic losses can include County financial impacts to monitor/address outbreaks; lost wages or commercial interruptions; depends on the severity and type of disease outbreak. .		Moderate
Drought	Prolonged drought event - The County is serviced by water supplies who primarily get water from groundwater sources; some surface water sources.	Entire population exposed. Population on surface water supplies may be impacted first; water restrictions/contamination; increased wildfire risk.		Droughts are not expected to cause direct damage to buildings.		Losses include aesthetic, landscape/nursery/agricultural industry impacts.		Low
Earthquake	100, 500-, 2,500-Year Mean Return Period (MRP) Events evaluated	NEHRP D&E:	728	NEHRP D&E:	294	100-year Loss:	\$0	Moderate
	NEHRP Soils D&E (soft soils that amplify ground shaking are present in the County)	Liquefaction Class 4:	0	Liquefaction Class 4:	1	500-year Loss:	\$4,162,923	
						2,500-year Loss:	\$68,372,975	
Extreme Temperature	Extreme temperature event (heat or cold)	Over 65 Population:	3,272	Physical impacts due to extreme temperatures would be limited.		Loss of business function is possible due to unexpected repairs (i.e. pipes bursting) or power failures.		High
		Population Below Poverty Level:	752					
Flood	100- and 500-Year Mean Return Period Event	100-year	61	100-year	38	100-year Loss:	\$53,145,730	High
		500-year	82	500-year	51			



Hazard of Concern	Hazard/ Scenario Area Evaluated	Population		Buildings		Economy (Loss)		Certainty Factor
Geological	High Landslide Susceptibility Areas and Areas developed over carbonate rock	Class A:	3	Class A:	1	Class A:	1034098.035	Moderate
		Class B:	178	Class B:	58	Class B:	\$33,162,659	
		Carbonate Bedrock:	325	Carbonate Bedrock:	145	Carbonate Bedrock:	\$431,935,389	
Harmful Algal Bloom	Any body of water or area adjacent that is susceptible to harmful algal bloom.	Population in contact (e.g., swimming) or drinking water from surface water impacted can result in a range of health effects		General building stock impacts due to harmful algal bloom are not anticipated. Critical facilities (i.e., water treatment plants) could lead to plant closures.		Economic impacts range from recreational closure of impacted waterbodies; cost to sample/monitor/remediate.		Low
Hazardous Substance	Release of a hazardous substance from a fixed site.	Population impacted will depend on the type of material and scale of the incident. May include population within small radii of site.		The degree of damages to a building depends on the scale of the incident.		The degree of damages depends on the scale of the incident.		Low
Infestation	Infestation including: Insects [e.g. Gypsy Moth, Mosquitoes, Spotted Lanternfly, Emerald Ash Borer], White-Tailed Deer, Rodents	Population impacted will depend on the type and severity of infestation and may cause an increased risk for disease outbreak.		Physical impacts will be limited to indirect impacts from invasive species which affect crops and vegetation.		Economic impact will depend on the type and severity of infestation and may cause an increased risk for disease outbreak.		Moderate
Severe Weather	Severe Weather Event	Entire population exposed; The degree of impact to the population depends on the scale of the incident.		Entire building stock is exposed; The degree of impact depends on the scale of the incident.		Annualized Loss:	\$74,162	High
						100 -Year Loss:	\$1,964,780	
						500-year Loss:	\$11,948,734	
Severe Winter Weather	Severe Winter Weather Event	All residents/commuters/visitors are exposed; socially-vulnerable populations may be at increased risk.		All buildings are exposed; the degree of impact depends on the scale of the incident.		The cost of snow and ice removal and repair of roads/infrastructure can impact operating budgets.		High
Wildfire	Wildfire Fuel Hazard areas (High, Very High, Extreme)	Wildfire:	41	Wildfire:	17	Wildfire:	\$9,892,518	Moderate



REPETITIVE FLOOD LOSSES

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

- Number of repetitive loss (RL) properties: 2
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA BureauNet, 2019

Note: RL and SRL as of 04/26/2019; The number of SRL properties excludes RL properties and includes properties that have been verified only (SRL_Indicator = V).

CRITICAL FACILITIES

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

Table 9.33-13. Potential Flood Losses to Critical Facilities and Lifelines

Name	Type	Exposure		Status of Mitigation
		1% Event	0.2% Event	
No critical facilities are located in the FEMA 1% and 0.2% Flood Hazard Area				

ADDITIONAL IDENTIFIED VULNERABILITIES

The jurisdiction has identified the following vulnerabilities within their community:

- According to the 2010 preliminary FEMA Flood Insurance Study (FIS) for Morris County, major flooding in the Township of Randolph is a result of heavy rains during the summer and fall months (FEMA FIS 2010).
- Stormwater flooding locations include the State Route 10 underpass (near 1152 Rt 10) on the western end of the Township and Jennifern Avenue and Route 10 West (630 Rt 10).

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Township of Randolph 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 Randolph has significant exposure. A map of the Township of Randolph hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain, as well as identified critical facilities within the municipality.

HAZARD RANKING

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



As discussed in Section 4.3 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Morris 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 Randolph. The Township of Randolph has reviewed the Morris County hazard ranking table, as well as its individual results, to reflect the relative risk of the hazards of concern to the community.

Table 9.33-14. Township of Randolph Hazard Ranking Input

Dam Failure	Drought	Earthquake	Extreme Temperature	Flood	Geological Hazard
Medium	Medium	Medium	Medium	High	Medium

Harmful Algal Bloom	Severe Storm	Severe Winter Storm	Wildfire	Hazardous Substances	Disease Outbreak	Infestation
High	High	Medium	Low	Medium	High	Medium

9.33.7 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 9.33-15. 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 2020 HMP Update?	
			Check if Yes	Enter 2020 HMP Action #
Incorporate LED lights and backup power to Sussex Turnpike at all intersections.	Township	Completed (2018)		
Incorporate LED lights and backup power to NJ Route 10 State Highway at all intersections.	Township	In Progress - LED Lights installed, pending backup power installation		
Acquisition/elevation of repetitive loss property on Franklin Road.	Township	Discontinue - Due to bridge renovation, flooding no longer an issue in that area (2017)		
Develop all-hazards public education and outreach program for hazard mitigation and preparedness.	Township	Ongoing emergency preparedness education and outreach		



2015 Action Number Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2020 HMP Update?	
			Check if Yes	Enter 2020 HMP Action #
Flood Warning signage for Jennifern Avenue and Route 10 - West	NJ DOT	Not complete	Yes	2020-Randolph-003
Flood Warning signage for Sussex Turnpike underpass at Route 10	NJ DOT	Not complete	Yes	2020-Randolph-001

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

- The Township has developed a 2019 NJDEP Water Quality Restoration grant application to improve stormwater discharges that are impacting the waters of Shongum Lake, which is located in the Township of Randolph, Morris County, New Jersey.

PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Township of Randolph participated in a risk assessment workshop in November 2019 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Township of Randolph participated in a mitigation action workshop in March 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Morris 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 9.33-16 summarizes the comprehensive-range of specific mitigation initiatives the Township of Randolph 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 9.33-17 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.33-16. Proposed Hazard Mitigation Initiatives

Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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
2020-Randolph-001	Backup Power for NJ State Route 10	Problem: There is no backup power for traffic lights on NJ Route 10 State Highway intersections. Township Police conduct traffic control intersections which is costly due to overtime and comes out of the Township budget. The Township owns generators that can be used however a transfer switch is needed for each light and the State's permission is needed for installation.		Existing	All	1, 2, 6	Township leads coordination; State DOT to install transfer switches	State DOT	High	Low	Short	High	SIP	PP
		Solution: Coordinate with the State DOT to install transfer switches at the traffic lights on NJ Route 10 at all intersections.												
2020-Randolph-002	Stormwater Flooding – State Route 10	Problem: There is a single grate on either side of the Route 10 underpass and collects stormwater from Sussex Turnpike (1.2 miles) (near 1152 Route 10); pipe installed in 1930's when needs were different (development has increased). The Township DPW has examined the location and determined the pipe is facing the wrong way into the River; drainage ditch and pipe is full of 5-ft of sediment. Black River Pond is going back up into the pipe and flooding Sussex Tpke. This creates a safety issue for cars that drive through the flooding; police/fire are called to assist; eventually drains down but a problem for residents. One police car was lost due to the flood waters; and rescues have been made for stranded residents in vehicles caught in these flood waters		Existing	Flood, Severe Storm	1, 2, 6	Township leads outreach to the State DOT and installation of sign; NJDOT	State DOT; Township budget	High	Low	Short	High	SIP	PP
		Solution: Coordinate with the State DOT regarding this repetitive flooding issue. The DOT needs to remove the												



Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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
		sediment in the Right of Way and provide maintenance to its infrastructure. Request this project be included in the State of NJ Hazard Mitigation Plan. In the short-term, the Township may install signage to warn vehicles of potential flooding and mark flood depths.												
2020-Randolph-003	Stormwater Flooding – Jennifern Ave and Route 10	Problem: Stormwater backup at Jennifern Avenue and Route 10 West (630 Rt 10) causes temporary flooding (2-4 hours of Rt 10 Shutdown) at a dip in the road. State owned culvert. Stormwater flooding is exacerbated by Leaf-Guard Grates with high intensity, short duration storms. State/County culvert. The flooding is increasing in frequency due to an increase in heavy rain events with 1-inch of rain or more per hour. Solution: Township to alert the State DOT of this issue because this is a State-owned road. The project may involve increasing the capacity of the stormwater drain or number of drains.		Existing	Flood, Severe Storm	1, 2, 6	State DOT	State DOT	High	High	Short	High	SIP	PP
2020-Randolph-004	Repetitive Flooded Properties	Problem: There are two repetitive loss properties in the Township. Solution: The Township will request the location of the repetitive loss properties by submitting an ISAA to FEMA. The Township will then conduct outreach to educate owners of their RL status and provide them mitigation options. Compile a list of mitigation activities the homeowners would like to pursue then develop a FEMA HMA grant to obtain funding.		Existing	Flood, Severe Storm	1, 2	Township, Homeowners	FEMA HMA	High	High	Short	High	SIP	PP
2020-Randolph-005	Shongum Lake	Problem: Shongum Lake is a recreational waterbody with multiple stormwater facilities directly discharging to the lake from various		Existing	Harmful Algal Bloom	1	Township	NJDEP Water Quality	High	High	Short	High	NSP	NR





Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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
		roads and surrounding properties. The lake has been experiencing serious water quality problems that impair its recreational use and aesthetics and has resulted in restrictions on its use to the heavy stormwater runoff from the surrounding properties and roadways. Significant sediment accumulation has occurred in the lake and resulted in reduced water depths due to the erosion of the stormwater discharge channels by the stormwater runoff.	Solution: Submit a proposal to NJDEP 2019 Water Quality Restoration Grant to target improving the water quality conditions within Shongum Lake and eliminate algal growth through implementing best management practices (BMPs) to prevent and minimize contaminants from entering directly into the waterbody and the on-going, operation and long term maintenance of sediment management systems and conditions within the watershed and the lake itself through the committed efforts and resources of the Township of Randolph and the SLPOA.					Restoration Grant						
2020-Randolph-006	Purchase sterilization equipment	Problem: The COVID-19 pandemic has presented challenges identified the need to increase equipment to sterilize to ensure safe work environments to ensure the continuity of operations for essential services (e.g., emergency services, DPW). The Township does not have adequate supplies.	Solution: Purchase equipment for sterilization to keep essential services coming to work (clean	Existing	Disease Outbreak	1, 6	Township Council	FEMA	High	Medium	Short	High	SIP	ES



Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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
		trucks/ambulances, government work spaces clean)												
2020-Randolph-007		Problem:												
		Solution:												

Notes:

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster 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 9.33-17. Summary of Evaluation and Action Priority

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
2020-Randolph-001	Backup Power for NJ State Route 10	1	1	1	1	0	0	0	0	1	1	1	1	1	1	10	High
2020-Randolph-002	Stormwater Flooding – State Route 10	1	1	1	1	0	0	0	0	1	1	1	1	1	1	10	High
2020-Randolph-003	Stormwater Flooding – Jennifern Ave and Route 10	1	1	1	1	0	0	0	0	1	1	1	1	1	1	10	High
2020-Randolph-004	Mitigate Repetitive Flooded Properties	1	1	1	1	1	0	0	0	1	1	1	1	1	1	11	High
2020-Randolph-005	Shongum Lake	1	1	1	1	1	1	0	1	1	1	0	1	1	1	12	High
2020-Randolph-006	Purchase sterilization equipment	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions.



Table 9.33-18. 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								
Disease Outbreak					-006			-006
Drought								
Earthquake								
Extreme Temperature								
Flood		-001, -002, -003				-001, -002, -003		
Geologic								
Harmful Algal Bloom				-005			-005	
Hazardous Substances								
Infestation								
Severe Weather		-001, -002, -003				-001, -002, -003		
Severe Winter Weather								
Wildfire								

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

RED = high ranked hazard

ORANGE = medium ranked hazard

YELLOW = low ranked hazard

9.33.8 Staff and Local Stakeholder Involvement in Annex Development

The Township of Randolph 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 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 9.33-19. Contributors to the Annex

Entity	Title	Method of Participation
Bill Wagner	Emergency Manager	Attended meetings; contributed to the content of the annex
Steven Mountain	Mayor	Attended meetings; contributed to the content of the annex
Darren Carney	DPW	Attended meetings; contributed to the content of the annex
Paul Ferriero	Engineer	Attended meetings; contributed to the content of the annex



Figure 9.33-1. Township of Randolph Hazard Area Extent and Location Map 1

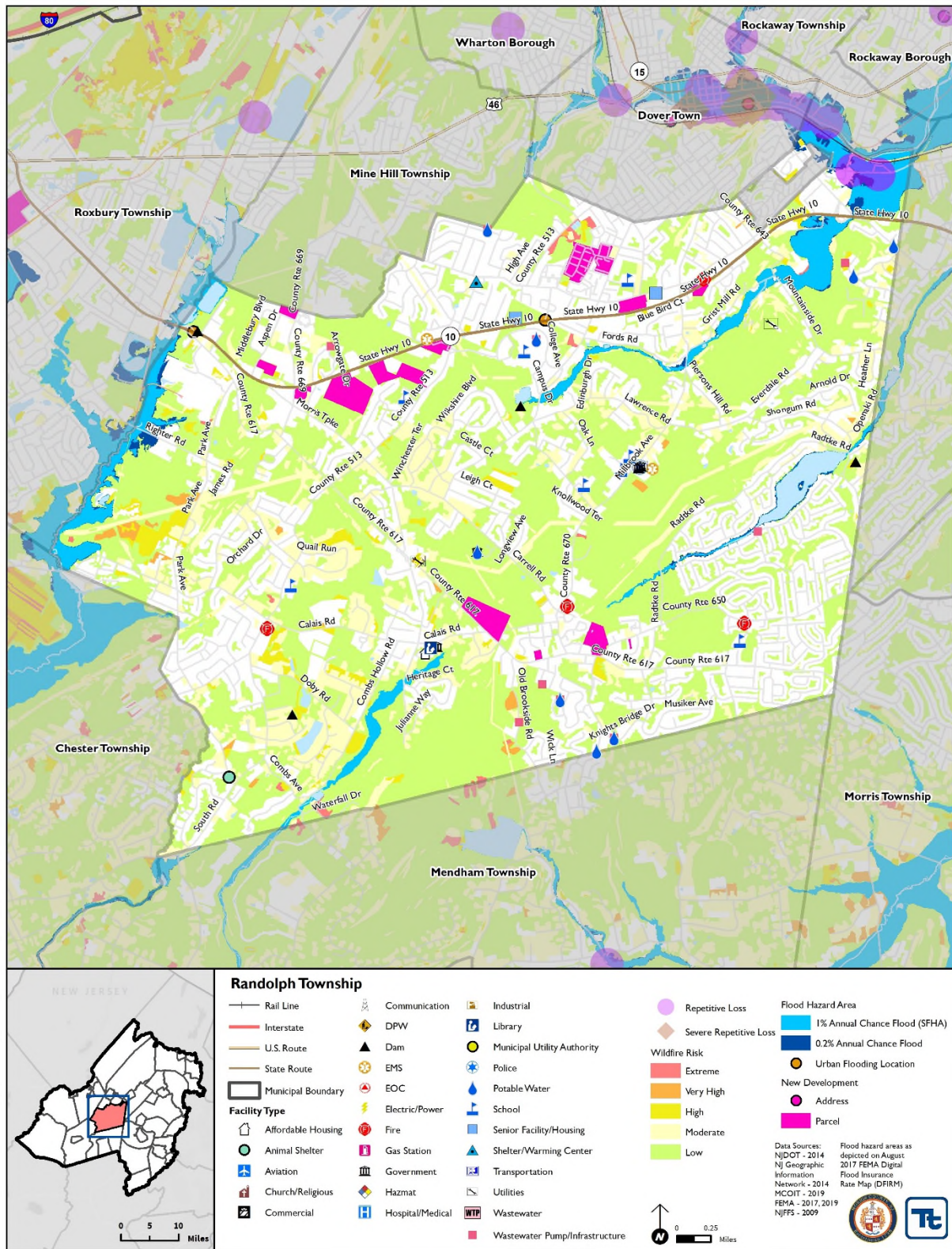
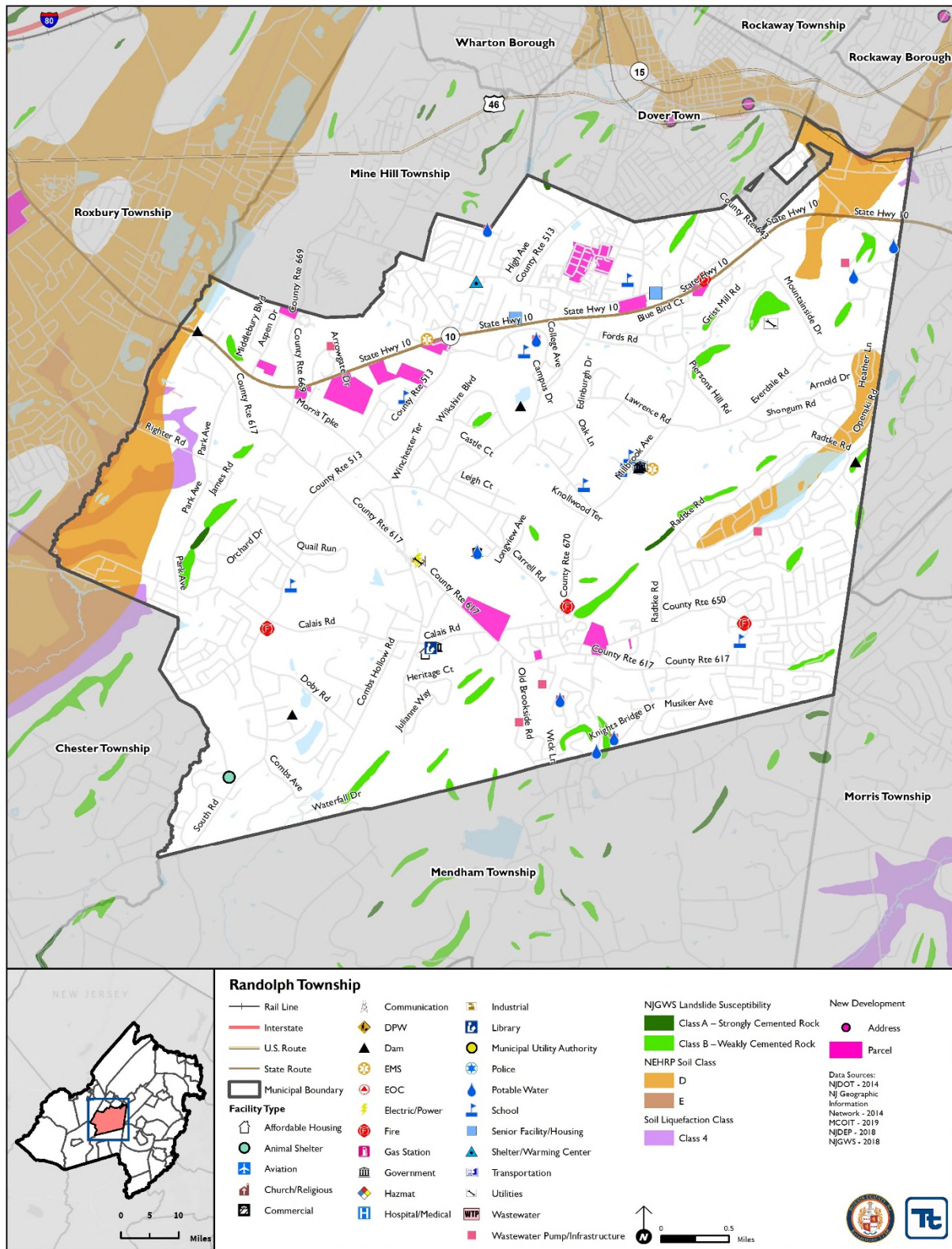




Figure 9.33-2. Township of Randolph Hazard Area Extent and Location Map 2





Action Worksheet			
Project Name:	Repetitive Flood Properties		
Project Number:	2020-Randolph-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	There are two repetitive loss (RL) properties in the Township.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will request the location of the repetitive loss properties by submitting an ISAA to FEMA. The Township will then conduct outreach to educate owners of their RL status and provide them mitigation options. Compile a list of mitigation activities the homeowners would like to pursue, collect homeowner documentation required for grant application, then develop a FEMA HMA grant to obtain funding.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	1% annual chance flood event + freeboard (<i>in accordance with flood ordinance</i>)	Estimated Benefits (losses avoided):	Reduces flood loss
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	3
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	3 years
Estimated Time Required for Project Implementation:	3 years	Potential Funding Sources:	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, Engineer	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate property	\$500,000	Reduces impacts to structures
	Elevate roads	\$500,000	Elevated roadways would not protect the buildings from flood damages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Action Worksheet	
Project Name:	Repetitive Flood Properties



Project Number:	2020-Randolph-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	0	Voluntary program
Fiscal	0	Grant funded anticipated as needed
Environmental	0	
Social	0	
Administrative	0	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	Short, depends on property owners if they want to voluntarily mitigate their property and obtaining grant funding
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	