

ANNEX 38: TOWNSHIP OF HANOVER

1 COMMUNITY CAPABILITIES ASSESSMENT

Table 1 through Table 6 summarizes the different community capabilities and tools that are available to the community to potentially assist in mitigating the impacts of hazards.

1.1 PLANNING, LEGAL AND REGULATORY CAPABILITIES

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

Table 1: Planning, Legal and Regulatory Capability

| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? 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 | Local and State | Yes | No | No |
| Comment: State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019. Enforced by Building Department, State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) | | | | | |
| Zoning Code | Yes | Local | Yes, if have planning board | No | No |
| Comment: 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. Enforced by Zoning Officer, Chapter 166. Zoning map updated February 2025. | | | | | |
| Subdivisions | Yes | County and Local | Yes, if have planning board | No | No |
| Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval. Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 The board of county commissioners 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. Enforced by Township Committee, Township Engineer, and Zoning Officer, Chapter 166. | | | | | |
| Stormwater Management | Yes | State, County and Local | Yes | No | No |
| Comment: See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8. Enforced by Township Committee, Township Engineer and Planning Board, March 2005 amended May 2024. | | | | | |
| Post-Disaster Recovery | No | - | No | - | - |
| Comment: | | | | | |
| Real Estate Disclosure | Yes | State | Yes | No | No |
| Comment: 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. Enforced by Township Administrator. Identifies hazardous areas in Hanover: Underground lines, sewage, airport. | | | | | |
| Growth Management | Yes | Local and State | Yes, if have planning board | No | No |

| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|--|----------------------------|---|------------------------|--|---|
| | | | | If yes- how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| <p>Comment: State Mandated on a municipal level. See Zoning Ordinance. Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. Land Use Element in Master Plan.</p> | | | | | |
| Shoreline Development | No | - | No | - | - |
| <p>Comment: 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.</p> | | | | | |
| Site Plan Review | Yes | Local | Yes | No | No |
| <p>Comment: 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 county commissioners of any county having a county planning board shall provide for the review of all site plans of land within the county by county planning board and for the approval of those site plans affecting county road or drainage facilities. 40:27-6.10: Each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality 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. Township Engineer, Zoning Officer and Township Planner perform Zoning Compliance and Development Standards Review.</p> | | | | | |
| Environmental Protection | Yes | State, County and Local | Yes | - | - |
| <p>Comment: The rules that are utilized by the NJ Department of Environmental Protection and other environmental agencies are codified at Title 7 of the NJ Municipal Administrative Code.</p> | | | | | |
| Flood Damage Prevention | Yes | State and Local | No | No | No |
| <p>Comment: The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. The Township Engineer administers Chapter 141, Floodplain Management.</p> | | | | | |
| Wellhead Protection | No | - | No | - | - |
| <p>Comment: Delineation of well head protection areas (WHPAs) is part of the NJ-approved 1991 well head protection plan (WHPP) for public community water supply wells. These are priority areas for efforts to prevent and clean up ground water contamination. Municipalities are empowered to regulate land use, physical facilities and other activities within WHPAs areas, the potential for groundwater contamination can be reduced under the provisions of the New Jersey Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., which authorizes each municipality to plan and regulate land use to secure a safe and adequate drinking water supply for its residents. Also refer to Safe Drinking Water Regulations (NJAC 7:10-11.7(b)1).</p> | | | | | |
| Emergency Management | Yes | County and Local | Yes | - | - |
| <p>Comment: Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. See Emergency Operations Plans below.</p> | | | | | |
| Climate Change | No | - | No | - | - |
| <p>Comment:</p> | | | | | |
| Disaster Recovery Ordinance | No | - | No | - | - |

| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|---|----------------------------|---|------------------------|--|---|
| | | | | If yes- how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| Comment: | | | | | |
| Disaster Reconstruction Ordinance | No | - | No | - | - |
| Comment: | | | | | |
| Other | No | - | No | - | - |
| Comment: | | | | | |
| Planning Documents | | | | | |
| Master Plan | Yes | Local | Yes | No | No |
| Comment: Per NJSA: Yes, if planning board (40:55D-28) and must be re-examined every ten years (40:55D-89.1); Planning Board, October 2019. | | | | | |
| Capital Improvement Plan | No | Local | Allowed | No | No |
| Comment: Per NJSA 40:55D-29) the governing body is authorized to direct the planning board to prepare a CIP with at least a six-year planning horizon. | | | | | |
| Disaster Debris Management Plan | Yes | - | | - | - |
| Comment: EOP – Annex E – Disaster Recovery and EOP – Annex O – Public Works | | | | | |
| Floodplain or Watershed Plan | Yes | State and Local | No | No | No |
| Comment: U.S. Army Corps of Engineers Regulatory Program Regulations (33 CFR 320-332). Enforced by Township Engineer, Chapter 141. | | | | | |
| Stormwater Management Plan | Yes | Local | Yes | No | No |
| Comment: Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency’s (USEPA) Phase II rules published in December 1999. The Department issued final stormwater rules on February 2, 2004 and four (4) NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers (MS4s). Enforced by Planning Board, Chapter 166-104, March 2005. | | | | | |
| Stormwater Pollution Prevention Plan | Yes | Local, State | Yes | No | No |
| Comment: Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency’s (USEPA) Phase II rules published in December 1999. The Department issued final stormwater rules on February 2, 2004 and four (4) NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers (MS4s). Stormwater Pollution Prevention Plan dated November 2018. | | | | | |
| Urban Water Management Plan | No | - | No | - | - |
| Comment: | | | | | |
| Habitat Conservation Plan | No | - | No | - | - |
| Comment: May develop a conservation plan element in master plan per NJSA 40:5D-28b (8). | | | | | |

| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|---|----------------------------|---|------------------------|--|---|
| | | | | If yes- how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| Economic Development Plan | Yes | Local | Allowed | - | - |
| Comment: Per NJSA 40:55D-28b. (9) There can be a generic Economic Development Element of the County Comprehensive Plan. Municipality can establish Economic Development Commission that can facilitate incentive programs (façade programs, low-interest loans, etc.). Economic Development Advisory Committee, Chapter 21 of Township Code. | | | | | |
| Shoreline Management Plan | No | - | No | - | - |
| Comment: | | | | | |
| Community Wildfire Protection Plan | No | - | No | - | - |
| Comment: | | | | | |
| Community Forest Management Plan | Yes | Local | No | - | - |
| Comment: This Plan describes existing Township programs, policies, and procedures; establishes manageable goals and sets CSIP objectives are set for the 2016 - 2020 timeframe. New Jersey Urban & community Forestry Program have extended the effective dates of the Management Plan. New guidelines are expected to be adopted October 2023. | | | | | |
| Transportation Plan | Yes | Local | No | No | No |
| Comment: Circulation plan and Circulation Plan Appendix - Bicycle and Pedestrian Connectivity Framework Plan element in master plan per NJSA 40:55D-28b. (4). | | | | | |
| Agriculture Plan | No | - | No | - | - |
| Comment: May develop a farmland preservation plan element per NJSA 40:5D-28b (13). | | | | | |
| Climate Action Plan | No | - | No | - | - |
| Comment: May develop a green building and environmental sustainability plan element per NJSA 40:5D-28b (16). | | | | | |
| Tourism Plan | No | - | No | - | - |
| Comment: | | | | | |
| Business Development Plan | No | - | No | - | - |
| Comment: Have an Economic Development Advisory Committee, Chapter 21 of Township Code. | | | | | |
| Landmark Commission | Yes | Local | Allowed | No | No |
| Comment: 40:32-6. Acquisition and preservation of historical buildings and data - Any county may acquire, by gift or purchase, any real estate or any interests therein, together with any and all buildings thereon within the limits of the county for historical purposes, or for the purpose of preserving therein or thereon historical data and objects of historical interest. Chapter 31 of the Township Code. | | | | | |
| Response/Recovery Planning | | | | | |
| Emergency Operations Plan (EOP) | Yes | Local | Yes | No | No |
| Comment: Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. | | | | | |
| Threat & Hazard Identification & Risk Assessment (THIRA) | No | - | No | - | - |
| Comment: | | | | | |
| Post-Disaster Recovery Plan | No | - | No | - | - |
| Comment: | | | | | |

| | Do you have this? (Yes/No) | Authority that enforces (Federal, State, Regional, County, Local) | State Mandated/Allowed | Has this been integrated? If yes- how? | |
|---|----------------------------|---|------------------------|--|---|
| | | | | If yes- how? Describe in comments | If no - can it be a mitigation action? If yes, add Mitigation Action #. |
| Continuity of Operations Plan | Yes | Local- | No | - | - |
| Comment: The purpose of the Continuity Plan is to assure that there is a process in place to maintain and or quickly resume delivery of critical functions within the township after any event that results in the disruption of normal delivery of services. Last Revised March 2023. | | | | | |
| Public Health Plan | Yes | - | | - | - |
| Comment: EOP Annex M – Public Health | | | | | |
| Other | No | - | No | - | - |
| Comment: | | | | | |

Table 2: Development and Permitting Capability

| Criterion | Response |
|--|--|
| Does your jurisdiction issue development permits? - If no, who does? If yes, which department? | Yes Township Engineer, Zoning Officer and Township Planner perform Zoning Compliance and Development Standards Review |
| 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 |

1.2 ADMINISTRATIVE AND TECHNICAL CAPABILITIES

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

Table 3: Administrative and Technical Capabilities

| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|------------|---|
| Administrative Capability | | |
| Planning Board | Yes | Township Engineer, Planner, Land Use Attorney |
| Mitigation Planning Committee | No | - |
| Environmental Board / Commission | Yes | Environmental Commission |
| Open Space Board / Committee | Yes | Township Committee |
| Economic Development Commission / Committee | Yes | Township Committee, Economic Advisory Committee |
| Warning Systems / Services (reverse 911, outdoor warning signals) | Yes | OEM NotifyMe, RAVE |
| Maintenance program to reduce risk | Yes | Township Engineer/DPW |
| Mutual aid agreements | Yes | Administrator |

| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|------------|--|
| Technical/Staffing Capability | | |
| Planners or engineers with knowledge of land development and land management practices | Yes | Township Engineer and Township Planner |
| Engineers or professionals trained in building or infrastructure construction practices | Yes | Township Engineer, Township Planner, and Construction Official |
| Planners or engineers with an understanding of natural hazards | Yes | Township Engineer, Township Planner, DPW Superintendent, and Construction Official |
| Staff with training in benefit/cost analysis | Yes | Municipal Financial Officer |
| Staff with training in green infrastructure | Yes | Township Engineer |
| Staff with education/knowledge/training in low impact development | Yes | Township Engineer |
| Surveyor | Yes | Consulting Surveyor |
| Stormwater engineer | Yes | Township Engineer, Consulting Engineer |
| Personnel skilled or trained in GIS applications | Yes | Engineer |
| Local or state water quality professional | Yes | Engineer |
| Scientist familiar with natural hazards in local area | No | - |
| Emergency manager | Yes | Director OEM |
| Grant writers | No | - |
| Resilience Officer | No | - |
| Watershed planner | Yes | Whippany River Action Committee |
| Environmental specialist | No | - |
| Other professionals trained in conduction damage assessments | Yes | Township Engineer and Construction Office |

1.3 FISCAL CAPABILITIES

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

Table 4: Fiscal Capabilities

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

1.4 EDUCATION AND OUTREACH CAPABILITIES

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

Table 5: Education and Outreach Capabilities

| Criterion | Response |
|--|---|
| Do you have a public information officer or communications office? | Yes |
| Do you have personnel skilled or trained in website development? | Yes |
| Do you have hazard mitigation information available on your website? <ul style="list-style-type: none"> If yes, briefly describe. | Yes Website provides link to County HMP on OEM Webpage |
| Do you use social media for hazard mitigation education and outreach? <ul style="list-style-type: none"> If yes, briefly describe. | Yes Facebook Twitter TAPinto Hanover |
| Do you have any citizen boards or commissions that address issues related to hazard mitigation? <ul style="list-style-type: none"> If yes, briefly describe. | Yes Environmental Commission, Green Team, School and Park Safety Committee |
| Do you have any other programs already in place that could be used to communicate hazard-related information? <ul style="list-style-type: none"> If yes, briefly describe. | No |
| Do you have any established warning systems for hazard events? <ul style="list-style-type: none"> If yes, briefly describe. | Yes NotifyMe – both non-emergency and SMART911 And RAVE |

1.5 COMMUNITY CLASSIFICATIONS

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

Table 6: Community Classifications

| Program | Participating? | Classification | Date Classified |
|--|----------------|--|-----------------|
| Community Rating System | No | - | - |
| Building Code Effectiveness Grading Schedule (BCEGS) | Yes | 2 | 2010 |
| Public Protection (Fire ISO Protection Class) | Yes | Fire District No. 2 - Class 4 Fire District No. 3 - Class 4 | June 2013 |
| Storm Ready Certification | No | - | - |
| Firewise Community Classification | No | - | - |

1.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

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

Table 7: National Flood Insurance Program Compliance

| Criterion | Response |
|--|-------------------|
| What local department is responsible for floodplain management? | Engineering |
| Who is your floodplain administrator? (name, department/position) | Township Engineer |
| Are any certified floodplain managers on staff in your jurisdiction? | No |

| Criterion | Response |
|--|--|
| What is the date that your flood damage prevention ordinance was last amended? | 12/12/19 |
| Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> If exceeds, in what ways? | Meets |
| When was the most recent Community Assistance Visit or Community Assistance Contact? | n/a |
| Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <ul style="list-style-type: none"> If so, state what they are. | No |
| Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what they are. | Yes Morris County FEMA maps are preliminary |
| Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If no, state why. | Yes |
| Does your floodplain management staff need any assistance or training to support its floodplain management program? | Yes |
| <input checked="" type="checkbox"/> If so, what type of assistance/training is needed? | Engineer needs CFM certification |
| Does your jurisdiction participate in the Community Rating System (CRS)? <ul style="list-style-type: none"> If yes, is your jurisdiction interested in improving its CRS Classification? If no, is your jurisdiction interested in joining the CRS program? | No n/a Yes |
| How many flood insurance policies are in force in your jurisdiction?* | 61 |
| <ul style="list-style-type: none"> What is the insurance in force? What is the premium in force? | \$24,140,500 \$168,851 |
| How many total loss claims have been filed in your jurisdiction?* | 81 |
| <ul style="list-style-type: none"> How many claims are still open or were closed without payment? What were the total payments for losses? | 0 Open, 15 Closed without payment \$3,509,884 |
| Do you maintain a list of properties that have been damaged by flooding? | Yes |
| Do you maintain a list of property owners interested in flood mitigation? | Yes |

* Note: Policies and Claims from <https://bsa.nfipstat.fema.gov/reports/1011.htm> and <https://bsa.nfipstat.fema.gov/reports/1040.htm> as of 09/30/2018

2 HAZARD ANALYSIS AND RISK ASSESSMENT

2.1 HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Township of Hanover 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 Hanover has significant exposure. Refer to Figure 1 and Figure 2.

2.2 REPETITIVE FLOOD LOSSES

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

- Number of repetitive loss (RL) properties: 10

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

2.3 CRITICAL FACILITIES

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

Table 8: Potential Flood Losses to Critical Facilities and Lifelines

| Name | Type | Exposure | | Status of Mitigation |
|-------------------------------------|-------------|----------|---|----------------------|
| | | | | |
| Texas Eastern Gas Transmission | Natural Gas | x | x | 2020-Hanover-001 |
| Whippany - Suburban Energy Services | Natural Gas | x | x | 2020-Hanover-002 |
| Lake Parsippany Dike | Dam | x | x | 2020-Hanover-003 |

Source: Morris County, 2019

2.4 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 3 (Risk Assessment). The Township of Hanover 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: Township of Hanover Hazard Ranking Input

| Hazard | Ranking | Hazard | Ranking |
|---------------------|----------|----------------------|----------|
| Drought | Moderate | Hazardous Substances | High |
| Earthquake | Moderate | Severe Weather | Moderate |
| Extreme Temperature | Moderate | Severe Winter Storm | Moderate |
| Flood | High | Wildfire | Moderate |
| Geological Hazards | Moderate | | |

2.5 COMPLETED ACTIONS

Hanover Township reported the following completed actions.

| 2020 Action | Mitigation Action Name | Project Description | Project Results |
|------------------|--------------------------|--|--------------------|
| 2020-Hanover-009 | Whippany Fire Department | Whippany Fire Department on 440 Route 10 is in progress to 11 Troy Hills Road. Relocation of Whippany Fire Department will be complete soon. | Project completed. |
| 2020-Hanover-010 | Communications Upgrade | Communications system in lifeline buildings of the Municipal Building, DPW, and Community | Project completed. |

| 2020 Action | Mitigation Action Name | Project Description | Project Results |
|------------------|-----------------------------------|--|--------------------|
| | | center do not have connectivity of phone lines. Work with Verizon Public Sector Solutions to determine the mitigation actions. | |
| 2020-Hanover-012 | Community Center Backup Generator | Load analysis determined that the Community Center (warming/cooling center) on 15 North Jefferson requires an upgrade to the backup power generator. Township Engineer is researching options for cooling and estimated costs of replacing existing generator. | Project completed. |

2.6 CANCELLED ACTIONS

Hanover Township reported the following cancelled actions.

| 2020 Action | Mitigation Action Name | Project Description | Justification |
|------------------|-------------------------------------|--|--|
| 2020-Hanover-001 | Texas Eastern Gas Transmission | Texas Eastern Gas Transmission is in the floodplain. Educate the owners of the property that the property is identified in the floodplain. | |
| 2020-Hanover-002 | Whippany - Suburban Energy Services | Whippany - Suburban Energy Services is in the flood plain Educate the owners of the property that the property is identified in the flood plain. | Property owners generally know when they are in a floodplain. |
| 2020-Hanover-003 | Lake Parsippany Dike | Lake Parsippany Dike on Eastmans Brook is a critical facility in the flood plain. Ensure EOP includes the Lake Parsippany Dike. Complete dam failure studies, where necessary. | Dam not located in Hanover Township |
| 2020-Hanover-005 | James Muir Dam | James Muir Dam on the Rockaway River is a critical facility in the floodway. Ensure EOP includes the James Muir Dam. Complete dam failure studies, where necessary. | Dam not located in Hanover Township |
| 2020-Hanover-006 | Eden Mill Dam | Eden Mill Dam on the Whippany River is a critical facility in the floodway that is determined as Hazard Class II for Significant Hazard. Notify the River Park Business Center, LLC that the Eden Mill Dam is a critical facility in floodplain. | The dam is private and not under Hanover’s jurisdiction. Removal of the dam by the private owner is ongoing. The dam has been breached. However recent delays resulting from having to |

| 2020 Action | Mitigation Action Name | Project Description | Justification |
|------------------|------------------------------------|---|---|
| | | Ensure EOP includes the dam. Request a copy of their dam failure study. | file an amended NJDEP permit application. |
| 2020-Hanover-008 | Parsippany Road and Horsehill Road | Drainage along Parsippany Road and Horsehill Road floods. Conduct drainage study | Revised into new actions in 2025 hazard mitigation strategy |
| 2020-Hanover-011 | Cedar Knolls Fire House | Retrofit building/secure structures (tent) outside of Cedar Knolls Fire House at 82 Ridgedale Avenue. Project was in discussion with mitigation committee and being reviewed by Fire Commissioners. | No longer a priority |

2.7 HAZARD MITIGATION STRATEGY

2.7.1 STRATEGY BACKGROUND

| Action | Jurisdiction | Mitigation Action Name | What is the problem the action is solving? | How does the action solve the problem? | 2024 Project Status Provided by Respondent (not applicable to any new actions) Not Started In Progress |
|--------|------------------|--|---|--|--|
| 1 | Hanover | New Jersey No Name #56 | New Jersey No Name #56 Dam on Malapadis Brook is a critical facility in the flood plain. | Ensure EOP includes the Lake Parsippany Dike (NJ No Name #56). Complete dam failure studies, where necessary. | Not Started |
| 2 | Hanover | RL/SRL/Flood prone properties | Ten properties have repetitive losses and one has severe repetitive loss. Many are condos and businesses on Route 10 in Whippany that is in the Passaic River Floodplain. | Track flood-prone facilities and educate the owners of the RL/SRL properties that their property is identified and provide them mitigation options. Determine if they want to participate in a FEMA grant application and apply for funding. | Not Started |
| 3 | Hanover/Regional | Parsippany Road and Mt. Pleasant Avenue Flood Mitigation Study | Flood mitigation analysis | Provide strategies to minimize flooding impacts | In Progress |
| 4 | Hanover | Horse Hill Road and Saddle Road Drainage Improvement | Replace undersized and failing stormwater infrastructure, which result in flooding and road closures. | Ensure the adequate conveyance of stormwater runoff. | In Progress. Design completed. |
| 5 | Hanover/Regional | Whippany River Improvement Initiative | Flooding | Eliminate obstructions within the Whippany River | In Progress. Phase I (desnagging and debris removal) completed. |
| 6 | Hanover | Flood Warning System (Message Signs) - NJ State Highway Route 10 | Reduce response action by Public Alert | Reduce response actions | New |
| 7 | Hanover | Whippany Road Dam - Removal | Removal of a remnant dam | Improve the hydrology and hydraulics of the Whippany River | New |

2.7.2 STRATEGY IMPLEMENTATION

| Action | What is the main hazard from the 2025 update that the action mitigates? | List any additional hazards from the 2025 mitigation plan update that the action mitigates | What is the main goal that the action addresses? | List any additional goals that the action addresses | What agencies will lead the implementation of this action? | What agencies will support the implementation of this action? | What are potential sources of funding that can support this mitigation action? | What benefits does this action provide? |
|--------|---|--|--|---|--|--|--|---|
| 1 | Flooding | N/A | Goal 1 | N/A | Engineering, FPA, OEM | NJDEP Bureau of Dam Safety | Operating budget | Better understanding of dam |
| 2 | Flooding | N/A | Goal 4 | Goal 1 | Engineering, FPA | Morris County | Morris County Flood Buy-Out Program (Blueways) | Mitigation of flood prone properties |
| 3 | Flooding | N/A | Goal 1 | N/A | Engineering, FPA | Morris County/Parsippa ny Road is a County roadway. The region includes Hanover, East Hanover, Morris Plains, Morris Township, Parsippany-Troy Hills, Florham Park, Morristown | FEMA funding; operating budget | Better understanding of flood risk |
| 4 | Flooding | N/A | Goal 1 | N/A | Engineering, FPA | | Capital Budget | Flood mitigation |

| Action | What is the main hazard from the 2025 update that the action mitigates? | List any additional hazards from the 2025 mitigation plan update that the action mitigates | What is the main goal that the action addresses? | List any additional goals that the action addresses | What agencies will lead the implementation of this action? | What agencies will support the implementation of this action? | What are potential sources of funding that can support this mitigation action? | What benefits does this action provide? |
|--------|---|--|--|---|--|---|--|---|
| 5 | Flooding | N/A | Goal 1 | N/A | Engineering, FPA | Region Includes: Hanover, East Hanover, Morris Plains, Morris Township, Parsippany-Troy Hills, Florham Park | The Project is funded by a \$1.5 million grant administered thru the U.S. Dept. of Agriculture | Flood mitigation |
| 6 | Flooding | N/A | Goal 1 | N/A | Engineering, FPA | NJ Department of Transportation | FEMA funds; municipal funds | Flood mitigation |
| 7 | Flooding | N/A | Goal 1 | N/A | Engineering, FPA | NJDEP Bureau of Dam Safety | FEMA funds; municipal funds | Flood mitigation |

2.7.3 STRATEGY RANKING AND PRIORITIZATION

| Action | What is the estimated cost of this action? | What is the estimated timeline for this action to be implemented? | Potential for Lives Saved 1 - Little Potential 2 - Some Potential 3 - Major Potential | Potential for Reduced Property Damages 1 - Little Potential 2 - Some Potential 3 - Major Potential | Potential for Reduced Response Actions 1 - Little Potential 2 - Some Potential 3 - Major Potential | Benefits Exceed Costs 0 - BCA equal 2 - Minor Exceedence 3 - Major Exceedence | Community Action Priority Ranking 1 - Low Priority 2 - Medium Priority 3 - High Priority | Total | Ranking |
|--------|--|---|--|---|---|--|---|-------|---------|
| 1 | \$50,000 | 2025 | 1 | 1 | 2 | 2 | 2 | 8 | Low |

| Action | What is the estimated cost of this action? | What is the estimated timeline for this action to be implemented? | Potential for Lives Saved 1 - Little Potential 2 - Some Potential 3 - Major Potential | Potential for Reduced Property Damages 1 - Little Potential 2 - Some Potential 3 - Major Potential | Potential for Reduced Response Actions 1 - Little Potential 2 - Some Potential 3 - Major Potential | Benefits Exceed Costs 0 - BCA equal 2 - Minor Exceedence 3 - Major Exceedence | Community Action Priority Ranking 1 - Low Priority 2 - Medium Priority 3 - High Priority | Total | Ranking |
|--------|--|---|--|---|---|--|---|-------|---------|
| 2 | \$750,000 per property /Estimate | 1-3 years | 2 | 3 | 3 | 1 | 1 | 10 | Medium |
| 3 | Less than \$100k | 1-3 years | 1 | 2 | 2 | 2 | 3 | 10 | Medium |
| 4 | \$400,000 | 1-3 years | 1 | 2 | 3 | 3 | 3 | 12 | High |
| 5 | \$1,500,000 | 1-3 years | 2 | 3 | 3 | 3 | 3 | 14 | High |
| 6 | \$500,000 | 1-3 years | 1 | 1 | 2 | 2 | 1 | 7 | Low |
| 7 | Over \$1M | 1-3 years | 1 | 2 | 2 | 2 | 1 | 8 | Low |

Figure 1: Township of Hanover Hazard Area Extent and Location Map 1

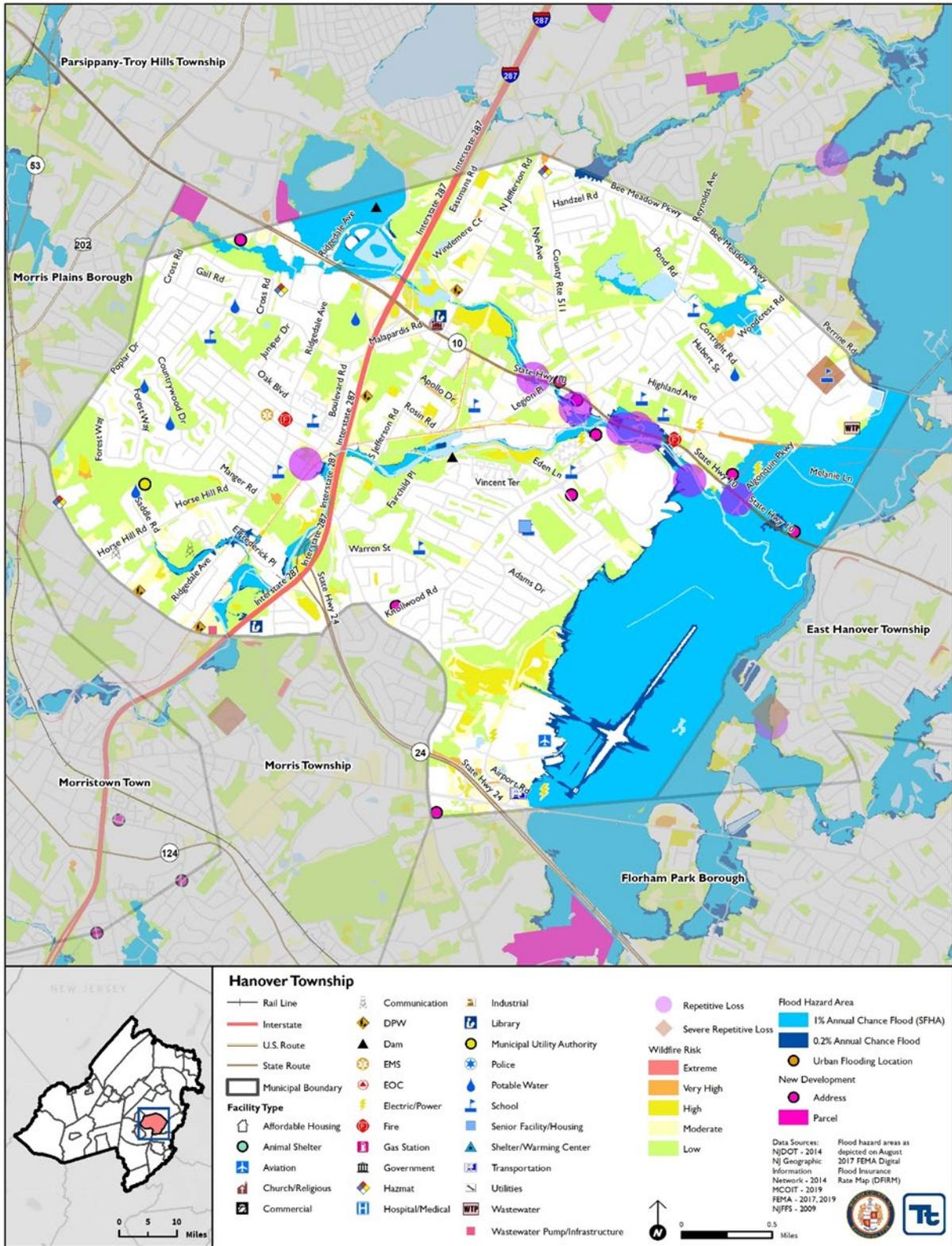


Figure 2: Township of Hanover Hazard Area Extent and Location Map 2

