



9.5 Town of Kent

This section presents the jurisdictional annex for the Town of Kent. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Kent’s risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.5.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Kent’s hazard mitigation plan primary and alternate points of contact.

Table 9.5-1. Hazard Mitigation Planning Team

| Primary Point of Contact | Alternate Point of Contact |
|---|---|
| Maureen Fleming, Supervisor 25 Sybil’s Crossing, Kent Lakes, New York 10512 (845) 225-3943 mfleming@townofkentny.gov | Bill Huestis, Deputy Supervisor 25 Sybil’s Crossing, Kent Lakes, New York 10512 (845) 225-3943 bhuestis@townofkentny.gov |
| NFIP Floodplain Administrator | |
| Bill Walters, Building Inspector 25 Sybil’s Crossing, Kent Lakes, New York 10512 (845) 225-3900 buildinginspector@townofkentny.gov | |

9.5.2 Municipal Profile

The Town of Kent was originally a part of Frederickstown, which was established March 7th, 1788, and was separated from it and made a new town, under the name of Fredericks in 1795. Its name was changed to Kent in honor of the Kent family in 1817. The major population center of the township is Lake Carmel, a settlement around an artificial lake of the same name developed in the 1920s. Historically the population centers had been Farmer's Mills and Ludingtonville, little of which remain, and Cole's Mills, none of which remains.

Much of early Kent's economy was based on dairy farming for the New York City market, but with many reservoirs being constructed in the late 19th century for drinking water for the same city, most of the farms were submerged, and the dairy industry was all but abandoned by the 1920s. At that point, and because of the advent of the automobile, Kent started to attract new residents from the city.

The Town is served by the Carmel Central School District and, for the majority of residents, by the Carmel Post Office. Kent is home to the 80-foot-tall (24 m) Mt. Ninham Fire Tower, located in the Taconic Hills. Built by the State of New York and the Civilian Conservation Corps in 1940, it is the tallest remaining fire tower in New York State and appears on the National Historic Lookout Register.

The Town is governed by a town supervisor and four councilpersons. The Town Supervisor is the highest elected official in the Town of Kent government. The Supervisor acts as the Chief Executive Officer and the Chief Financial Officer of the Town. The Supervisor is also the "chairman" of the Town Board. The Supervisor sets the agendas for all public meetings and workshop sessions of the Town Board and conducts



these meetings. The Supervisor's Office is responsible for the day to day operation of the Town, including such functions as accounting, budgeting, payroll and personnel.

The Town of Kent is located in north-central Putnam County, just south of Dutchess County, bordered on the east by Patterson, on the south by Carmel and on the west by Putnam Valley and Philipstown. It is comprised of about 23,000 acres; it is 15 miles wide from east to west and 6 miles from north to south. Much of Kent is rocky and steeply sloped, and western Kent in particular has areas of significant relief, or slopes in excess of 25% grade. Several lakes, ponds, the Boyd's Corner Reservoir, a portion of the West Branch Reservoir and, of course, Lake Carmel, form prominent natural features that have shaped the town's development pattern. These water bodies also function as a critical element in New York City's drinking water supply, comprising part of the Croton system.

According to the 2010 U.S. Census, the population of the Town of Kent was 13,507. According to 2018 American Community Survey estimates, the Town's population was reported to be 13,325 people.

9.5.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction's overall risk to its hazards of concern. Table 9.5-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.5-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.5-2. 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* (within regulatory floodplain/ Outside regulatory floodplain) | | | | | | | | | | |
| | Total | Within SFHA | Total | Within SFHA | Total | Within SFHA | Total | Within SFHA | Total | Within SFHA |
| Single Family | 2 | 0 | 6 | 0 | 4 | 0 | 10 | 0 | 11 | 0 |
| Multi-Family | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other (commercial, mixed-use, etc.) | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| Total | 2 | 0 | 8 | 0 | 6 | 0 | 10 | 0 | 12 | 0 |
| Property or Development Name | Type of Development | # of Units / Structures | | Location (address and/or block and lot) | Known Hazard Zone(s)* | Description / Status of Development | | | | |
| Recent Major Development and Infrastructure from 2015 to Present | | | | | | | | | | |
| Frangle Realty Corp. - Sewer Installation | Non-Residential | 10,000 sq. ft. sewer lateral installation | | - | N/A | Defunct turned into Route 52 sewer district | | | | |
| Route 52 Sewer District | Municipal | Sewer conveyance system with 3 pump stations | | - | N/A | - | | | | |
| Hilltop Estates Subdivision | Mixed Use | 10 lot residential subdivision, with 1 commercial lot, for a 2 story, 20,000 sq. ft. office/commercial | | 12.1-1-38 & 42 Peckslip Road | Wildfire Intermix | Under plan review. Exp of commercial bldgs. In project | | | | |



| | | | | | |
|---|-----------------|---|---|--------------------|-------------------------------|
| | | building | | | |
| Patterson Crossing (entrance in T/ Kent – Project in T/ Patterson) | Non-Residential | 382,560 sq. ft. retail center, with management and meeting space, a substation for the Putnam County Sheriff's Dept. and 28,000 sq. ft. garden center | | N/A | Approvals extended in 2020 |
| Route 311 Plaza | Non-Residential | 15,200 sq. ft. retail center | 12.-2-17 | Wildfire Intermix | Property for sale |
| Kent Manor | Residential | 200+ Residential nits | 346 Nichols Street | Wildfire Interface | No update. Drilling wells. |
| Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years | | | | | |
| Kent Country Square | Non-Residential | Route 52 | 12.-1-152 (NY- 52 east of Ludingtonville Road intersection) | N/A | In planning |
| Carmel School District bus garage | Non-Residential | Route 52 | 1099 NY-52 | Wildfire Interface | Under construction |
| Titan Concrete Plant | Non-Residential | - | 301 NY-52 | Wildfire Interface | Resumed |

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.5.4 Capability Assessment

The Town of Kent performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 6 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- The municipality’s understanding of local capacity for adapting to current and future risks and changing conditions.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.5.4). The Town of Kent 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 regulatory tools that are available to the Town of Kent and where hazard mitigation has been integrated.

Table 9.5-3. Planning, Legal, and Regulatory Capability

| | Do you have this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) | |
|--|----------------------------|---|---|---------------------------------|----------------|---|----|
| Codes, Ordinances, & Requirements | | | | | | | |
| Building Code | Yes | Ch. 27, adopted 1/28/2008 | Local | Building Department | Yes | No | - |
| <p>Comment: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.</p> | | | | | | | |
| Zoning Code | Yes | Ch. 77, adopted 12/28/78, amended 11/24/2008 | Local | Zoning Board of Appeals | No | Yes | NA |
| <p>Comment:</p> <ul style="list-style-type: none"> Chapter 77, Zoning. This chapter is adopted to protect and promote the health, safety, comfort, convenience, economy, aesthetics and general welfare and for the following additional purposes: To guide the future development of the Town in accordance with the Kent Comprehensive Plan so that the Town may realize its potential as a place to live and to work with the most beneficial and convenient relationships among the residential and commercial districts of the Town and with due consideration to: (a) The character of the district and its peculiar suitability for particular uses. (b) Existing conditions and trends in population economic activity, land use and building development. (c) Conserving the value of buildings and neighborhoods by encouraging the most appropriate use of land throughout the Town; (2) To prevent the pollution of streams, ponds and all other water resources, to prevent floods and to encourage the wise use and sound management of natural resources throughout the Town in order to preserve the integrity, stability and beauty of the community and the value of the land; and; To encourage flexibility in the design of land developments so as to promote the most appropriate use of lands, to facilitate the adequate and economical provision of streets and utilities and to preserve, to the extent feasible, the natural qualities and functions of open lands. The review of site plans by the Planning Board shall include Existing topography and proposed grade elevations at a contour interval of not more than two feet, unless waived by the Planning Board, soil types, wetlands and watercourses, one-hundred-year floodplains, bedrock outcrops, slopes in excess of 10%, and the location of trees with a diameter of eight inches dbh and greater. The Town has determined that it is necessary to standardize the way in which studies of plant and animal species and their habitat are conducted as part of the environmental impact review of residential and nonresidential development projects. By standardizing the way in which biodiversity assessments are conducted, the Town will be able to develop baseline, site-specific biological information across the diverse land types of the Town that will enhance the Town's ability to make informed planning decisions and maintain biodiversity as growth proceeds. Proposed development shall be so designed as to provide for proper surface water management through a system of controlled drainage that preserves existing drainage patterns and protects other properties and environmentally sensitive lands. | | | | | | | |
| Subdivision Regulations | Yes | Ch. 66A, adopted 1/24/2012 | Local | Planning Board | No | Yes | NA |
| <p>Comment:</p> <ul style="list-style-type: none"> Chapter 66A, Subdivision of Land. The Planning Board of the Town of Kent is authorized and empowered to approve plats showing lots, with or without streets or highways. It is declared to be the policy of the Town Board to consider subdivisions as part of the orderly and desirable development of land, and to assure that land to be subdivided will produce building sites of such character and area that will permit their development for homes or buildings without danger to health or peril from fire, flood or other menace, while avoiding or minimizing, to the extent practicable, adverse environmental effects. If any portion of the land within the subdivision is subject to periodic inundation or flood hazard caused by stormwater, this portion shall be clearly indicated on any submissions required by these regulations. In cases of doubt, the Planning Board may require the submission of a flood hazard study delineating the limits of the one hundred-year floodplain. Such study shall be conducted by a licensed professional engineer. Land subject to flooding and land deemed by the Planning Board to be otherwise uninhabitable shall not be platted for residential or commercial occupancy or for any such other use that may increase danger to health, life or property or aggravate the flood | | | | | | | |



| | Do you have this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) | |
|--|----------------------------|---|---|--|----------------|---|-----|
| <p>hazard.</p> <ul style="list-style-type: none"> The lot arrangement shall be such that, in constructing a building in compliance with Chapter 77,35 there will be no foreseeable prohibitions to development based upon soils, topography or other natural conditions, including the presence of regulated wetlands or floodplain areas. | | | | | | | |
| Stormwater Management Regulations | Yes | Ch. 66. Adopted 4/8/05, amended 1/14/08 | Local | Building Department; Highway Dept. Enviro consultant – stormwater reporting | Yes | Yes | NA |
| <p>Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department</p> <ul style="list-style-type: none"> Chapter 66, Steep Slope Protection and Stormwater Management. The Town has determined that Steep slopes have been and are in jeopardy of being destroyed by unregulated regrading, filling, excavating, building, clearing and other such acts that are inconsistent with the natural condition or acceptable use of steep slopes. Steep slopes in Kent are environmentally sensitive land forms and valuable natural resources which are of benefit to the entire Town and the surrounding region; and that the failure to properly control erosion and sediment runoff results in excessive nutrient loading and sedimentation of water bodies within the Town's watersheds, topsoil loss, vegetation loss, altered drainage patterns, instability of soils, obstruction of drainage structures, damage to surface and subsurface hydrology and intensification of flooding. This chapter seeks to meet the protection of Steep Slopes and Stormwater Management by achieving the following objectives: (1) Meet the requirements of minimum control measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02 as hereafter amended or revised; (2) Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities, as hereafter amended or revised; (3) Preserve steep slopes to the greatest extent practicable and to regulate their use to protect the public interest; (4) Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels | | | | | | | |
| Post-Disaster Recovery | No | - | - | - | - | - | - |
| <p>Comment:</p> | | | | | | | |
| Real Estate Disclosure | Yes | Property Condition Disclosure Act, NY Code - Article 14 §460-467 | State | NYS Department of State, Real Estate Agent | Yes | No | N/A |
| <p>Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.</p> | | | | | | | |
| Growth Management Regulation | No | - | - | - | - | - | - |
| <p>Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.</p> | | | | | | | |
| Site Plan Review | Yes | Ch. 77, adopted 12/28/78, amended 11/24/2008 | Local | Planning Board | No | No | N/A |
| <p>Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.</p> | | | | | | | |
| Environmental Protection | Yes | Ch, 88, amended January 2009; | Local | Stormwater Management | Yes | No | N/A |



| | Do you have this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) | |
|---|-------------------------------|--|--|--|---|---|----|
| | | Ch. 66. Adopted 4/8/05, amended 1/14/08 | | Officer. | | | |
| <p>Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019. A mining moratorium was enacted in 2020 to prevent significant soil removal.</p> | | | | | | | |
| Flood Damage Prevention | Yes | Ch. 39, adopted 7/6/87, amended 1/29/13 State mandated freeboard or BFE+2 for new construction and substantial improvements Ch. 39 in local code | Federal, State, Local | Building Department – Building Inspector | Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential) | Yes | NA |
| <p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Chapter 39, Flood Damage Prevention. The Town Board of the Town of Kent finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Kent and that such damages may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this chapter to; regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities; B. require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; C. control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; D. control filling, grading, dredging and other development which may increase erosion or flood damages; E. regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands, and; F. qualify and maintain for participation in the National Flood Insurance Program. The Building Inspector is hereby appointed local administrator to administer and implement this chapter by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; <ul style="list-style-type: none"> Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and <ul style="list-style-type: none"> Adequate drainage shall be provided to reduce exposure to flood damage. On streams with a regulatory floodway, as shown on the Flood Boundary and Floodway Map or the Flood Insurance Rate Map adopted in § 39-6, no new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation by a licensed professional engineer shows that such an encroachment shall not result in any increase in flood levels during occurrence of the base flood; The following standards apply to new and substantially improved residential structures located in areas of special flood hazard; Within Zones A1-A30, AE and AH and also Zone A if base flood elevation data are available, new construction and substantial improvements shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. The following standards apply to new and substantially improved commercial, industrial and other nonresidential structures located in areas of special flood hazard, Within Zones A1-A30, AE and AH, and also Zone A if base flood elevation data are available, new construction and substantial improvements of any nonresidential structure shall either: <ul style="list-style-type: none"> Have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or Be floodproofed so that the structure is watertight below two feet above the base flood elevation, including attendant utility and sanitary facilities, with walls substantially impermeable to the passage of water. | | | | | | | |
| Municipal Separate Storm Sewer System (MS4) Regulation | Yes | All in zoning code Ch. 66 adopted 2005, 2008 | Local/State/Federal | NYSDEC | Yes | No | No |
| <p>Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.</p> | | | | | | | |



| | Do you have this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) | |
|---|----------------------------|---|---|---------------------------------|----------------|---|-----|
| Emergency Management | No | - | - | - | No | - | - |
| Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. | | | | | | | |
| Climate Change | No | - | - | - | Yes | - | - |
| Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019. As of 2020, Kent is attempting to achieve Climate Smart Community status. | | | | | | | |
| Disaster Recovery Ordinance | No | - | - | - | - | - | - |
| Comment: | | | | | | | |
| Disaster Reconstruction Ordinance | No | - | - | - | - | - | - |
| Comment: | | | | | | | |
| Other | No | - | - | - | - | - | - |
| Comment: | | | | | | | |
| Planning Documents | | | | | | | |
| Comprehensive Plan | Yes | Kent Comprehensive Plan, adopted 11/2008 | Local | Town Board | No | No | N/A |
| Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level | | | | | | | |
| Capital Improvement Plan | Yes | N/A | Local | N/A | No | No | - |
| Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g. The Town is working on developing a Capital Plan, which could include funding to support mitigation activities for public property and infrastructure | | | | | | | |
| Disaster Debris Management Plan | No | - | - | - | No | - | - |
| Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually. | | | | | | | |
| Floodplain or Watershed Plan | Yes | Ch. 39, adopted 7/6/87, amended 1/29/13 | Local | Building Department | No | No | N/A |
| Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities. | | | | | | | |
| Stormwater Plan | Yes | Ch. 66 Amended 1/14/08 | Local | Highway Department | No | No | N/A |
| Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects. | | | | | | | |
| Open Space Plan | No | - | - | - | Yes | - | - |
| Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses. | | | | | | | |



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|---|----------------------------|---|---|---------------------------------|------------------------------|---|---|
| Urban Water Management Plan | No | - | - | - | No | - | - |
| Comment: | | | | | | | |
| Habitat Conservation Plan | No | - | - | - | No | - | - |
| Comment: : Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program. | | | | | | | |
| Economic Development Plan | No | - | - | - | No | - | - |
| Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. | | | | | | | |
| Shoreline Management Plan | No | - | - | - | Yes – only if coastal county | - | - |
| Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations | | | | | | | |
| Community Wildfire Protection Plan | No | - | - | - | No | - | - |
| Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020. | | | | | | | |
| Forest Management Plan | No | - | - | - | No | - | - |
| Comment: | | | | | | | |
| Transportation Plan | No | - | - | - | No | - | - |
| Comment: | | | | | | | |
| Agriculture Plan | No | - | - | - | No | - | - |
| Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers. | | | | | | | |
| Other | No | - | - | - | - | - | - |
| Comment: | | | | | | | |
| Response/Recovery Planning | | | | | | | |
| Comprehensive Emergency Management Plan | Yes | - | Local | - | Yes | - | - |
| Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC) | | | | | | | |
| Strategic Recovery Planning Report | No | - | - | - | - | - | - |
| Comment: | | | | | | | |
| Threat & Hazard Identification & | No | - | Local | - | Yes | - | - |



| | Do you have this? (Yes/No) | Code Citation and Date (code chapter, name of plan, date of plan) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) |
|--|----------------------------|---|---|---------------------------------|----------------|---|
| Risk Assessment (THIRA) | | | | | | |
| Comment: THIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA | | | | | | |
| Post-Disaster Recovery Plan | No | - | - | - | No | - |
| Comment: | | | | | | |
| Continuity of Operations Plan | No | - | - | - | No | - |
| Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations | | | | | | |
| Public Health Plan | No | - | - | - | No | - |
| Comment: | | | | | | |
| Other | Yes | - | - | - | No | - |
| Comment: | | | | | | |
| <ul style="list-style-type: none"> Combined Steep Slope Protection and Stormwater Management Local Law (2005) | | | | | | |

Table 9.5-4. Development and Permitting Capability

| Indicate if your jurisdiction implements the following | Response Yes/No; Provide further detail |
|---|--|
| Development Permits. If yes, what department? | Yes - Town of Kent Building Department (Bill Walters) |
| Permits are tracked by hazard area. For example, floodplain development permits. | No |
| Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction. | No. The Town is approaching build-out as significant portions of Kent are parkland or are in the NYC watershed. Growth is supported along the Route 52 corridor. |

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Kent.

Table 9.5-5. Administrative and Technical Capabilities

| Resources | Available? (Yes or No) | Department/ Agency/Position |
|----------------------------------|------------------------|--|
| Administrative Capability | | |
| Planning Board | Yes | The Kent Planning Board regulates development in the Town. |
| Mitigation Planning Committee | No | - |
| Environmental Board/Commission | Yes | The Kent Conservation Advisory Committee is a volunteer organization that advises the Town Supervisor and Board on environmental issues. |



| Resources | Available? (Yes or No) | Department/ Agency/Position |
|--|---------------------------|---|
| Open Space Board/Committee | No | - |
| Economic Development Commission/Committee | No | At the county level |
| Warning Systems / Services (mass notification system, outdoor warning signals) | No | - |
| Maintenance programs to reduce risk | No | - |
| Mutual aid agreements | Yes | Fire Department; Own police force |
| Technical/Staffing Capability | | |
| Planners or engineers with knowledge of land development and land management practices | Yes | Planning |
| Engineers or professionals trained in building or infrastructure construction practices | Yes | Planning |
| Planners or engineers with an understanding of natural hazards | Yes | Planning |
| Staff with expertise or training in benefit/cost analysis | Yes | Director of Finance |
| Professionals trained in conducting damage assessments | No | The Town worked with the county on damage assessments previously. |
| Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications | Yes | Wetlands/Stormwater Consultant Stormwater Management Committee |
| Scientist familiar with natural hazards | No | - |
| NFIP Floodplain Administrator (FPA) | Yes | Building Inspector (currently William Walters) |
| Surveyor(s) | No | - |
| Emergency Manager | No | - |
| Grant writer(s) | Yes | Contracted |
| Resilience Officer | No | - |
| Other | No | - |

Fiscal Capability

The table below summarizes financial resources available to the Town of Kent.

Table 9.5-6. Fiscal Capabilities

| Financial Resources | Accessible or Eligible to Use (Yes/No) |
|---|---|
| Community Development Block Grants (CDBG, CDBG-DR) | Yes |
| Capital improvements project funding | Yes |
| Authority to levy taxes for specific purposes | Yes |
| User fees for water, sewer, gas or electric service | Yes |
| Impact fees for homebuyers or developers of new development/homes | Yes |
| Stormwater utility fee | No |
| 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 |
| Other federal or state Funding Programs | Yes |
| Open Space Acquisition funding programs | No |
| Other | Multi-Modal Road Infrastructure grants for severely damaged through roads connecting Townships. The Town is submitting one for Horton Town Road this January. Grants received (Discretionary) through assemblywoman and State senator to do roads |



Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Kent.

Table 9.5-7. Education and Outreach Capabilities

| Indicate if your jurisdiction has the following resources | Yes/No; Please describe |
|---|--|
| Public information officer or communications office? | No |
| Personnel skilled or trained in website development? | Town IT worker- developed by a company (Rich Harris updates site); posts/videos |
| Hazard mitigation information available on your website; if yes, describe | Portal on website that can directly email departments. If there are emergencies or roads closed, emergency information put on website. |
| Social media for hazard mitigation education and outreach; if yes, briefly describe. | Yes- Facebook, Police Department Facebook |
| Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe. | Yes- Kent Conservation Advisory |
| Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe. | No- but Maureen has email list for Lake Carmel Park District to send out special interest (e.g. algal blooms, info about power outages and where they can get dry ice and water, warming centers, etc.) pass along info by NYSEG |
| Warning systems for hazard events; if yes, briefly describe. | No |
| Natural disaster/safety programs in place for schools; if yes, briefly describe. | Yes- fire/police education in school |
| Other | No |

Community Classifications

The table below summarizes classifications for community programs available to the Town of Kent.

Table 9.5-8. Community Classifications

| Program | Participating? (Yes/No) | Classification (if applicable) | Date Classified (if applicable) |
|---|-------------------------|--------------------------------|---------------------------------|
| Community Rating System (CRS) | No | - | - |
| Building Code Effectiveness Grading Schedule (BCEGS) | - | - | - |
| Public Protection (ISO Fire Protection Classes 1 to 10) | - | - | - |
| NYSDEC Climate Smart Community | Yes | - | Not yet classified. |
| Storm Ready Certification | No | - | - |
| Firewise Communities classification | No | - | - |
| Other | No | - | - |

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an



understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.5-9. Adaptive Capacity of Climate Change

| Hazard | Adaptive Capacity (Capabilities) - High/Medium/Low* |
|---------------------|---|
| Drought | Medium |
| Disease Outbreak | High |
| Earthquake | Medium |
| Extreme Temp | Medium |
| Flood | Medium |
| Harmful Algal Bloom | High |
| Severe Storm | Medium |
| Severe Winter Storm | Medium |
| Terrorism | High |
| Wildfire | High |

*High Capacity exists and is in use
 Medium Capacity may exist; but is not used or could use some improvement
 Low Capacity does not exist or could use substantial improvement
 Unsure Not enough information is known to assign a rating

National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Bill Walters, Building Inspector

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Kent.

Table 9.5-10. NFIP Summary

| Municipality | # Policies | # Claims (Losses) | Total Loss Payments | # RL Properties |
|--------------|------------|-------------------|---------------------|-----------------|
| Town of Kent | 17 | 19 | \$28,812 | 2 |

Source: FEMA 2020
 Notes: Policies, claims, repetitive loss, and loss statistics provided by FEMA Region 2, and current as of July 28, 2020 The total number of repetitive loss properties does not include severe repetitive loss properties.
 RL Repetitive Loss

Resources

The Town of Kent’s Building Department is responsible for floodplain management and undertakes permit application review. Substantial improvements are determined at the time of permit application. The Department does not have any certified floodplain managers on staff, nor does it have resources to determine the extent of flooding impacts posted by climate change. The Department has indicated that new training programs are needed.

Compliance History

As of August 11, 2020 there are 17 policies in force, insuring \$4.5 million of property with total annual insurance premiums of \$15,402. Since 1978, 19 claims have been paid totaling \$28,811. Overall, the Town does not have significant areas of flood risk.





The Town has site plan review, permitting and inspection process that ensures that new development and substantial improvements are conducted in compliance with all regulations and ordinances, including consideration of natural hazard risk areas.

Regulatory

The Town's Flood Damage Prevention ordinance is found in Chapter 39 of the Town's code and was last amended in 2013.

Additional Areas of Existing Integration

- **Land Use Planning:** Per the 2008 Comprehensive Plan, the following:
 - Planning Policy 1: Steep Slope Protection - Establish appropriate development controls to avoid environmental degradation of steep slopes.
 - In addition to the existing Steep Slope and Erosion Control Ordinance, the town should further guide potential development and address the visual impact of development on steep slopes. The recommendations are:
 - Hillside Protection Ordinance. This would limit the percentage of an area which could be disturbed significantly and would regulate the cutting and filling required to place development on hillsides. Such a regulation is particularly important for commercial areas in which large level areas are required for both the building footprint and parking. Finished grades could also be addressed by such a regulation.
 - Ridgeline Protection Ordinance. This could take the form of a ridge overlay district or ridge zoning ordinance. This would limit or prohibit building on or near a ridgeline.
 - Discount the area of land on any site which is located on steep slopes in the calculation of total developable area. For example, if only 25-50% of steep slope areas were included in the calculation of developable area, for a property containing 10 acres of steep slopes, only 2.5 – 5 acres would count toward the allowable density of the parcel.
- **Site Plan Review:** The Town has site plan review, permitting and inspection process that insures that new development and substantial improvements are conducted in compliance with all regulations and ordinances, including consideration of natural hazard risk areas.
- **Capital Planning:** Per the Town's Comprehensive Plan, the Town has developed a Capital Plan, which includes funding to support mitigation activities for public property and infrastructure.
- **Building Local Mitigation Capabilities:** The Town has included an initiative within the proposed mitigation strategy to support and participate in county-led initiatives intended to build local and regional mitigation and risk-reduction capabilities.
- **Floodplain Management:** The current NFIP FPA has not had formal training in floodplain management, but would be very interested in attending training, certification, etc. if offered locally.
- **Privately-Owned Dam Outreach and Support:** The Town is comprised of a number of private lake communities, many of which have wholly owned bridges and dams which may need repair and/or upgrades to meet new standards designed to withstand the increasing severe weather events. The Town provides public outreach and resources (not fiscal), as appropriate, to support these communities with meeting their obligations to meet prevailing safety standards.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.



Evacuation Routes

The town does not have evacuation routes. Please refer to Section 4 (County Profile) for county-identified evacuation routes.

Sheltering

No formal shelters exist in the Town, though Town Hall does function as a warming center. As of the time of this plan’s writing, the Town is seeking a partnership with a local organization to serve as a warming center of potential shelter.

Temporary Housing

No temporary housing locations in Kent are designated. However, the Town indicated that fields at Putnam County Veterans Memorial Park on Gipsy Trail Road could be used for temporary housing.

Permanent Housing

The Town has not identified any permanent housing locations for potential relocations. Please refer to Section 4 (County Profile) for potential locations of permanent housing identified in Putnam County.

9.5.5 Hazard Event History Specific to the Town of Kent

Putnam County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Kent’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Putnam County. Table 9.5-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.5-11. Hazard Event History

Table with 5 columns: Dates of Event, Event Type (Disaster Declaration if applicable), County Designated?, Summary of Event, and Municipal Summary of Damages and Losses. It lists four events from March 2018 and May 2018, including Nor'easter, Snow/Nor'easters, Snow, and Tornadoes/microbursts.



| Dates of Event | Event Type (Disaster Declaration if applicable) | County Designated? | Summary of Event | Municipal Summary of Damages and Losses |
|----------------|---|--------------------|---|---|
| | | | of damaged roofs and uprooted trees. | |
| April 13, 2020 | Heavy Rain/Wind | No | Strong winds caused damage throughout the County. | N/A |
| August 4, 2020 | Heavy Rain/Wind | No | Widespread power outages due to downed trees were reported due to Tropical Storm Isaias passing through the region. | N/A |

Notes:

* Total includes overtime and material from four events between March and May 2018

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable

9.5.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Town of Kent’s risk assessment results and data used to determine the hazard ranking.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2’ above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.5-12. Potential Flood Losses to Critical Facilities

| Name | Type | Exposure | | Addressed by Proposed Action |
|-------------------|----------------|----------|------------|------------------------------|
| | | 1% Event | 0.2% Event | |
| Boys Corner Dam | Dam | X | X | 2020-Kent-Town-007 |
| Ludington Court 1 | Highway Bridge | X | X | 2020-Kent-Town-007 |
| Ludington Court 2 | Highway Bridge | X | X | 2020-Kent-Town-007 |



Hazard Ranking

This section provides 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) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Cattaraugus as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Kent. The Town of Kent has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community. The Town did not provide feedback to the proposed risk ranking.

Table 9.5-13. Hazard Ranking Input

| | | | | |
|---------------------|----------------|-----------------------|---------------------|----------|
| Disease Outbreak | Drought | Earthquake | Extreme Temperature | Flood |
| Medium | Medium | Low | Medium | Low |
| Harmful Algal Bloom | Severe Weather | Severe Winter Weather | Terrorism | Wildfire |
| Low | High | High | Medium | High |

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Town of Kent is very vulnerable to power failures. Following storms, power failures may extend to four days in the Lake Carmel and Kentwood Lake regions, and for weeks in some instances. The Town is served by NYSEG electric service. However, following storms and outages NYSEG crews do not coordinate with towns for power restoration. The situation is further complicated by the reliance on well water by Town residents and the failure of private wells to operate during power outages. The Town is served by substations on Mooney Hill in Paterson, a transformer station that travels up Route 52, and a substation at Cherry Hill and Fair Street that supplies portions of Lake Carmel, Terry Hill, and Putnam Drive. (*Action 002*)
- Following the COVID-19 pandemic, the Town has reportedly seen an influx of residents. Vacation home communities have been experiencing a transformation to year-round communities. As of July 2020, the Town received supplies distributed to Putnam County by New York State. However, PPE supplies had begun to run dry.
- Though the Town Hall is used as a warming station, there is no formal shelter in the area for overnight stays or other warming stations.
- Interstate 84 passes through the Town’s northeast corner. When there are major accidents on the interstate near Kent, traffic is diverted through the Town’s local roads and creates massive traffic congestion in Kent.
- The Highway Department has identified small bridges that need to be replaced throughout the Town. The reconstruction can be undertaken with Town bond money and CHIPs funding. The Town plans to replace the following bridges in-house:
 - Churchill Road Bridge



- Whangtown & Schrade Bridge
- Dean Road Bridge
- Miller Hill Road Bridge
- Mooney Hill Road Bridge
- The following major projects are anticipated to require additional grant funding:
 - Nimham Road Bridge
 - East Boyds Road Bridge
 - Sagamore Road Bridge
 - Lake Louise Bridge
 - Kent Shore Drive Bridge
- The town-owned dams for the Lake Carmel Park District and the Lake Tibet Park district require upgrades to meet new standards designed to meet the increasing severe weather events. As of 2020, the Town is working with an engineer on improvements.
- The Town is comprised of a number of private lake communities, many of which have wholly owned bridges and dams which may need repair and/or upgrades to meet new standards designed to withstand the increasing severe weather events. (*Actions 003 and 005*)
- There is a privately owned Wastewater Treatment Plant which is set to accept flow from properties within the newly formed Kent Route 52 Sewer District. The vulnerability of such has not been established but damage to such would impact not only the properties it serves but also could severely impact Palmer Lake into which the treated effluent will flow. As of 2020, the surrounding district has not yet been built out.
- Palmer Lake received \$350,000 to do a study on septic/wastewater in the surrounding area.

Specific areas of concern based on resident response to the Putnam County Hazard Mitigation Citizen survey include:

- Residents reported vulnerabilities due to trees falling on powerlines during winter storms and severe storms.
- The intersection of Route 301 and Peekskill Hollow Road was reported to experience flooding. The intersection ices over in the wintertime, causing dangerous driving conditions.

9.5.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. 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 may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.5-14. Status of Previous Mitigation Actions

| Project # | Project Name | Hazard(s) Addressed | Responsible Party | Brief Summary of the Original Problem and the Solution (Project) | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete) | | Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why. |
|-----------|--|--|---|---|--|-------------------------------------|---------------------|--|
| | | | | | | Cost | Level of Protection | |
| TOK-1 | Upgrade or replace earthen causeway through NYC reservoir comprising Nichols Street. | Flood, Severe Storm, Climate Change | Highway Superintendent | Upgrade or replace earthen causeway through NYC reservoir comprising Nichols Street. Due to design failure roadway erodes and cedes clearance to reservoir as a result of major weather events. Engineering underway to determine scope of project, which should include restoration/replacement of "Little Fills" causeway on Nichols Street. Causeway spans NYC reservoir and provides alternative emergency evacuation/ hospital access from Putnam County Park should the Route 301 causeway be inaccessible due to incident on either Gypsy Trail Road or Route 301. | In Progress | Cost | | 1. Include in the 2020 HMP |
| TOK-2 | Currently the town is evaluating bridges under 20' in span to determine fitness and the degree of damage caused by weather | Flood, Severe Storm, Severe Winter Storm, Earthquake, Climate Change | Highway Superintendent, with support of County Engineer | Currently the town is evaluating bridges under 20' in span to determine fitness and the degree of damage caused by weather events, which includes the following: <ul style="list-style-type: none"> Whangtown & Schrade Dean Road Mooney Hill Road Ludington Court Nimham Road Sagamore Road South Lake East Boyds Road Bridges are of varied age and origin (including at least one cattle pass) and primarily field stone and mortar construction. Currently under review by Town Highway superintendent and county engineer. | In Progress | Cost | | 1. Include in the 2020 HMP |
| TOK-3 | The town owned dams for the Lake Carmel Park District and | Flood, Severe Storm, Earthquake, Climate | Town of Kent – Engineering and Public Works | The town owned dams for the Lake Carmel Park District and the Lake Tibet Park district require upgrades to meet new standards designed to meet the increasing severe weather events. | In progress | Cost | | 1. Include in the 2020 HMP |



| Project # | Project Name | Hazard(s) Addressed | Responsible Party | Brief Summary of the Original Problem and the Solution (Project) | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete) | | Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why. |
|----------------|---|---|---|--|--|--------------------------------------|--|--|
| | the Lake Tibet Park district require upgrades | Change | | Engineering currently underway to determine scope of project. In addition to municipally owned dams, there are several privately held dams under similar requirements. Since damage to both the general safety and welfare and publicly owned assets are at risk from a failure, sponsorship of private applications for assistance is also a possibility. | | Evidence of Success | | |
| TOK-4 (LOI 54) | Lake Carmel Dam Rehabilitation | Flood, Severe Storm, Earthquake, Climate Change | Town of Kent – Engineering and Public Works | Lake Carmel Dam Rehabilitation: The improvements have been divided into short term and long term categories. The short term improvements should be addressed within the next year Short Term Dam Improvements- Town is mitigating severely eroded stream bank of the spillway channel. Long term Improvements – TBD See Action Worksheet | In progress | Cost | | 1. Discontinue and combine with TOK-3. |
| | | | | | | Level of Protection | | |
| | | | | | | Damages Avoided; Evidence of Success | | |
| TOK-5 | Submit Multi-Modal Road Infrastructure grant requests for severely damaged through roads connecting Townships | Flood, Severe Storm, Severe Winter Storm | Town of Kent – Engineering and Public Works | Submit Multi-Modal Road Infrastructure grant requests for severely damaged through roads connecting Townships. The Town is currently planning to submit one for Horton Town Road this January. | In progress | Cost | | 1. Discontinue and combine with TOK-2 |
| | | | | | | Level of Protection | | |
| | | | | | | Damages Avoided; Evidence of Success | | |
| TOK-6 | Establish a Capital Improvements Budget | All hazards | Town Board | Establish a Capital Improvements Budget (recommendation of the 2008 Comprehensive Plan), to include budget items for capital infrastructure repair, improvements, upgrades and other mitigation. | Ongoing Capability | Cost | N/A | 1. Discontinue- Ongoing capability |
| | | | | | | Level of Protection | N/A | |
| | | | | | | Damages Avoided; Evidence of Success | The Town can proactively plan to replace infrastructure. | |
| TOK-7 | Green Chimney's | Severe Storm, | Green Chimneys | Green Chimney's School – Clearpool Campus Back Up Power: Backup | No | Cost | | 1. Discontinue- not a Town property |
| | | | | | | Level of | | |



| Project # | Project Name | Hazard(s) Addressed | Responsible Party | Brief Summary of the Original Problem and the Solution (Project) | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete) | | Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why. |
|------------|--|--|---|--|--|--------------------------------------|--------------------------------------|--|
| | | | | | | Protection | Damages Avoided; Evidence of Success | |
| (LOI 1803) | School | Severe Winter Storm, Climate Change | School, Nicole Andersen, Fund Development Associate, Grants | power generation to support critical facilities. See Action Worksheet | progress | Protection | | |
| TOK-8 | Privately-Owned Dam Outreach and Support | Flood, Severe Storm, Severe Winter Storm, Earthquake, Climate Change | Town Supervisor, working with local lake communities | Privately-Owned Dam Outreach and Support: The Town is comprised of a number of private lake communities, many of which have wholly owned bridges and dams which may need repair and/or upgrades to meet new standards designed to withstand the increasing severe weather events. The Town will provide public outreach and resources (not fiscal), as appropriate, to support these communities with meeting their obligations to meet prevailing safety standards. | Ongoing Capability | Cost | | 1. Discontinue- ongoing capability |
| TOK-9 | Ludington Bridge | Flood, Severe Storm, Climate Change | Town Supervisor and Town Board to appeal to County | Petition Putnam County to address the flood-vulnerable Ludington Court bridge, considered critical infrastructure for the Town and region. This would likely involve full replacement of the bridge at a higher elevation. | No progress | Level of Protection | | 1. Continue |
| TOK-10 | Route 301 Highway Garage Improvements | Flood, Severe Storm, Climate Change | Highway Superintendent | Enlarge the yard, perform wetlands mitigation and build an onsite retaining wall | No progress | Damages Avoided; Evidence of Success | | 1. Continue |
| TOK-11 | Support and participate in county led initiatives intended to build local and regional | All Hazards | Putnam County, as supported by relevant local department leads, | Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> Re-Establish Local | Not started | Cost | | 1. Include in the 2020 HMP |



| Project # | Project Name | Hazard(s) Addressed | Responsible Party | Brief Summary of the Original Problem and the Solution (Project) | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete) | | Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why. |
|-----------|--|---------------------|-------------------|---|--|-------------------------------------|--|--|
| | mitigation and risk-reduction capabilities | | | <p>Emergency Planning Committees (LEPCs) within the County, with an emphasis on stronger municipal level participation. (PCBES-1).</p> <ul style="list-style-type: none"> • Workshops and Seminars to build local capabilities in floodplain management and disaster recovery (PCBES-11), potentially to include: <ul style="list-style-type: none"> ○ NFIP Community Rating System (CRS) ○ Benefit-Cost Analysis (BCA) ○ Substantial Damage Estimating (SDE) ○ NFIP Elevation Certificates (EC) ○ Certified Floodplain Manager (CFM) Training and Certification <p>County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures (PCBES-12)</p> | | | | |



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Kent has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- The Town completed rehabilitations of the Hortontown Road Bridge and North Horsepound Road Bridge in 2020 and 2015, respectively.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Kent participated in a mitigation action workshop on August 26, 2020 and was provided 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 ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.5-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Kent would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

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

Table 9.5-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.5-15. Proposed Hazard Mitigation Initiatives

| Project Number | Project Name | Goals Met | Hazard(s) to be Mitigated | Description of Problem and Solution | Critical Facility (Yes/No) | EHP Issues | Estimated Timeline | Lead Agency | Estimated Costs | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---------------------------------|-----------|---|--|----------------------------|--------------------------|--------------------|-------------------------|-----------------|---|--------------------------------|----------|---------------------|--------------|
| 2020-Kent - 001 (Former TOK-2 and TOK-5) | Bridge Replacements | 1, 2, 4 | Flood, Severe Storm, Severe Winter Storm, Earthquake, | <p>Problem: Bridges are of varied age and origin (including at least one cattle pass) and primarily field stone and mortar construction. Currently under review by Town Highway superintendent and county engineer.</p> <p>Solution: Bridges will be reconstructed and replaced to extend useful life. Bridges include: - Whangtown & Schrade Bridge - Dean Road Bridge - Miller Hill Road Bridge - Mooney Hill Road Bridge - Nimham Road Bridge - East Boyds Road Bridge - Sagamore Road Bridge - Lake Louise Bridge - Kent Shore Drive Bridge</p> | Yes | Yes-potential permitting | 10 Years | Kent Highway Department | \$2.86M | Extends useful life of bridges and maintains connectivity in the Town | Bond Money; Chip | Medium | SIP | PP, SP |
| 2020-Kent - 002 | Kent Vegetation Management Plan | 1, 4, 5 | Severe Storm; Severe Winter Storm | <p>Problem: The Town of Kent is heavily forested and vulnerable to power outages during storms due to trees taking down power lines. Residents have well water that fails when power goes out. Roadways in the Town are blocked by falling trees.</p> <p>Solution: Undertake a proactive vegetation management program to prevent power outages. The program will consist of tree inventories, developing a maintenance plan, and removing trees identified during the inventory.</p> | Yes | Yes | Within 2 years | Town of Kent | Low | Reduced outages/continued operation of facilities | HMGP; Town funds | High | NSP | PP |
| 2020-Kent - 003 | Repetitive Loss Outreach | 1, 5 | Flood; Severe Storm | <p>Problem: Due to frequent flooding events in the Town of Kent, there are 2 repetitive loss properties, based on NFIP data. The properties have experienced repetitively flooding as documented by paid NFIP claims. Without mitigation, the properties will continue to be vulnerable to future flood events.</p> <p>Solution: The municipality will conduct an outreach program to all repetitive loss properties. The outreach will inform the property owners of this repetitive loss status and provide mitigation alternatives that the property can do to protect the structure from future flood losses. If the property owner is interested in structural mitigation measures, the municipality will collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement the mitigation measure chosen (acquisition, elevation, moving).</p> | No | No | 2 Years | Town of Kent | None | Foregone flood losses | Private owner funds; FMA; HMGP | High | EAP | PI |



Table 9.5-15. Proposed Hazard Mitigation Initiatives

| Project Number | Project Name | Goals Met | Hazard(s) to be Mitigated | Description of Problem and Solution | Critical Facility (Yes/No) | EHP Issues | Estimated Timeline | Lead Agency | Estimated Costs | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|----------------------------------|-------------------------------------|-----------|---------------------------------|--|----------------------------|------------|--------------------|---|-----------------|--|---------------------------|----------|---------------------|--------------|
| 2020-Kent-004 (Former TOK-1) | Nichols Street Hardening | 1, 4, 5 | Flood, Severe Storm | <p>Problem: The Nichols Street causeway across West Branch Reservoir is eroding due to weather events. Nichols Streets provides alternative emergency evacuation/hospital access from Veterans Memorial Park in the case of the Route 301 causeway becoming inaccessible.</p> <p>Solution: Undertake engineering scoping and potential mitigation measures to enhance the roadway’s useful life. Support the placement of rocks and boulders to shore up the causeway.</p> | No | Yes | 5 Years | Town of Kent | N/A | Continued function of Nichols Street as an evacuation point | Town funds; CHIPS | Medium | SIP | PP, SP |
| 2020-Ken-005 (Former TOK-3) | Dam Replacements | 1, 5 | Flood, Severe Storm, Earthquake | <p>Problem: The Town of Kent owns dams in the Lake Carmel and Lake Tibet Park District. The dams require upgrades to comply with existing dam standards. Additionally, privately owned dams in the Town are subject to similar mandates.</p> <p>Solution: The Town plans to undertake engineering and work with private property owners to upgrade dams.</p> | Yes | Yes | 5 Years | Town of Kent – Engineering and Public Works; Park Districts | TBD | The proposed project will safeguard public and private property in the areas protected by the dam. | Town funds; NYSDEC | Medium | SIP | SP |
| 2020-Kent-006 (Former TOK-11) | Hazard Mitigation Capacity Building | All | All hazards | <p>Problem: The Town is interested in enhancing its capacity to withstand hazards and desires to participate in local/region mitigation and risk-reduction capability trainings.</p> <p>Solution: In conjunction with nearby communities and/or the County, the Town can participate in re-established Local Emergency Planning Committees (LEPCs) and workshops and seminars for both the public and municipal staff.</p> | No | None | 5 Years | Town of Kent | Staff Time | Enhanced capabilities of Town staff | FEMA; CEDAR; NYS DHSES | Medium | EAP | PR |
| 2020-Kent-007 | Critical Facilities Outreach | All | Flood | <p>Problem: There are three critical facilities located in the Special Flood Hazard Area. The facilities (which include highway bridges and a dam) require mitigation and/or outreach to owners.</p> <p>Solution: For Town-owned facilities, Kent will seek options to floodproof or mitigate flood damages. For properties owned by other owners, the municipality will notify the facility owner/operator that the structure is located within a floodplain and provide various floodproofing measures that the owner/operator can implement to protect the structure.</p> | Yes | Yes | 3 Years | Town of Kent; Property Owners | Medium-High | Continued operation of facilities during flood events | HMGP; FMA | Medium | EAP | PP |
| 2020-Kent-008 (Former | Ludington Bridge | 1, 2, 4 | Flood; Severe Storm | <p>Problem: The Ludington Court bridge crosses Stump Pond Stream and is in a deteriorated condition. The bridge provides the only ingress and egress for the Kent Highway Department and an adjacent private business.</p> | Yes | Yes | 5 Years | Town of Kent | \$500,000 | Continued operation of highway | Town Funds; CHIPS | Medium | SIP | SP |



Table 9.5-15. Proposed Hazard Mitigation Initiatives

| Project Number | Project Name | Goals Met | Hazard(s) to be Mitigated | Description of Problem and Solution | Critical Facility (Yes/No) | EHP Issues | Estimated Timeline | Lead Agency | Estimated Costs | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|----------------|---------------------------------------|-----------|---------------------------|---|----------------------------|------------|--------------------|--------------|-----------------|--|---------------------------|----------|---------------------|--------------|
| TOK-9) | | | | Solution: Reconstruct the bridge to a higher level of protection and replace the bridge and concrete abutments. | | | | | | facilities and enhanced resilience to future flooding events | | | | |
| 2020-Kent-009 | Route 301 Highway Garage Improvements | 1, 2, 4 | Flood; Severe Storm | <p>Problem: The Highway Department is located adjacent to Stump Pond Stream. During flooding events, the stream overtops and washes out the facility’s parking lot and salt dome.</p> <p>Solution: The Town proposes the repair and replacement of the flooded facilities to withstand flooding and mitigate flood damage. The project will likely entail wetlands mitigation</p> | Yes | Yes | 5 Years | Town of Kent | \$100,000 | Mitigation | Town funds; HMGP; FMA | Medium | SIP | SP |

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

- BRIC Building Resilient Infrastructure and Communities
- FMA Flood Mitigation Assistance Grant Program
- HMGP Hazard Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes Critical Facility located in 1% floodplain

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 also 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. Such 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 also preserve or restore the functions of natural systems. These 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. Such 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

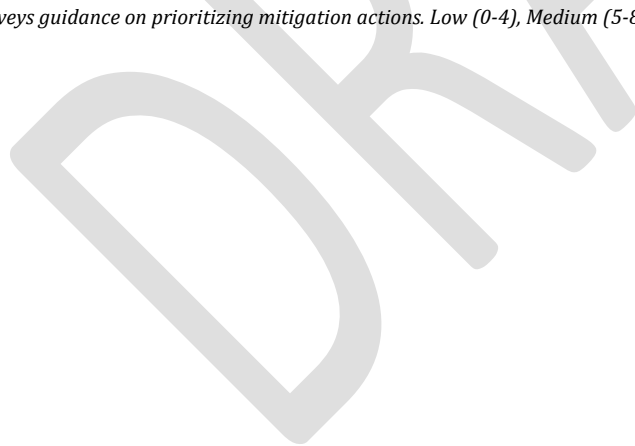
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Table 9.5-16. Summary of Prioritization of Actions

| Project Number | Project 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-Kent -001 (Former TOK-2) | Bridge Replacements | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Medium |
| 2020-Kent -002 | Kent Vegetation Management Plan | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | High |
| 2020-Kent -003 | Repetitive Loss Outreach | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 14 | High |
| 2020-Kent -004 (Former TOK-1) | Nichols Street Hardening | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Medium |
| 2020-Kent 005 (Former TOK-3) | Dam Replacements | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Medium |
| 2020-Kent -006 (Former TOK-11) | Hazard Mitigation Capacity Building | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 8 | Medium |
| 2020-Kent- 007 | Critical Facilities Outreach | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 8 | Medium |
| 2020-Kent-008 | Ludington Bridge | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Medium |
| 2020-Kent-009 | Route 301 Highway Garage Improvements | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Medium |

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).





9.5.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.5-17. Analysis of Mitigation Actions by Hazard and Category

| Hazard | FEMA | | | | CRS | | | | | |
|---------------------|--------------|------------------------------|-----|----------------------|--------------|--------------|----|----|------------------------------|------|
| | LPR | SIP | NSP | EAP | PR | PP | PI | NR | SP | ES |
| Disease Outbreak | | | | -006 | -006 | | | | | |
| Drought | | | | -006 | -006 | | | | | |
| Earthquake | | -001 -005 | | -006 | -006 | | | | -001 -005 | |
| Extreme Temperature | | | | -006 | -006 | | | | | |
| Flood | | -001 -005 -008 -009 | | -006 -003 -007 | -003--006 | -003 -007 | | | -001 -005 -008 -009 | -003 |
| HABS | | | | -006 | -006 | | | | | |
| Severe Storm | -002 -005 | -001 -005 -008 -009 | | -003 -006 -007 | -002 -006 | -003 -007 | | | -001 -005 -008 -009 | |
| Severe Winter Storm | -002 | -001 | | -006 | -002 -006 | | | | -001 | |
| Terrorism | | | | -006 | -006 | | | | | |
| Wildfire | | | | -006 | -006 | | | | | |

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

9.5.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Kent followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from the Construction and Highway departments, including Bill Walters and Richard Othmer. Supervisor Maureen Fleming represented the community on the Putnam County Hazard Mitigation Plan Planning Partnership, Steering Committee, and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. 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.

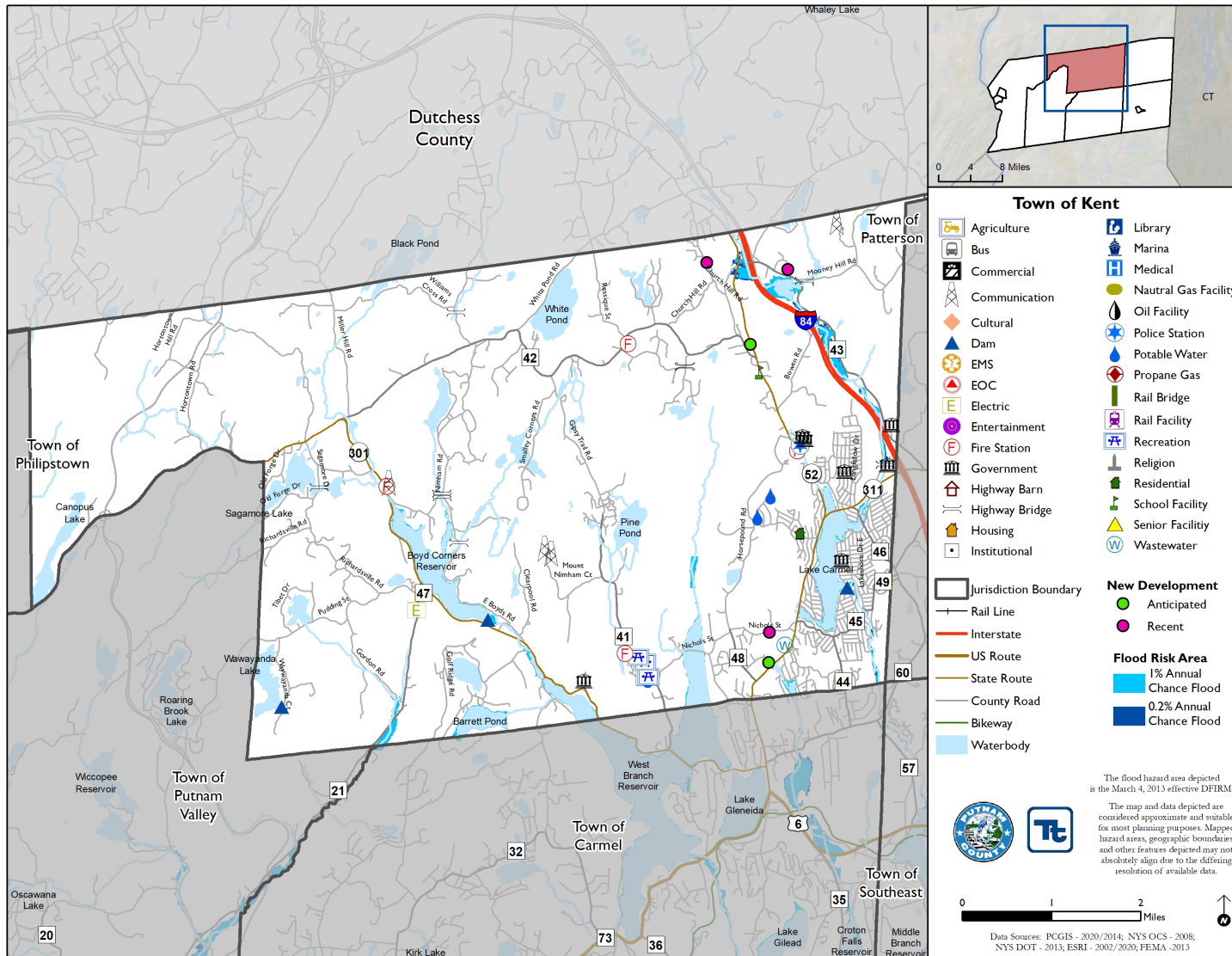
Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

9.5.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Kent that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Kent has significant exposure. The map is illustrated below.



Figure 9.5-1. Town of Kent Hazard Area Extent and Location Map





| Action Worksheet | | | |
|---|---|---|---|
| Project Name: | Kent Vegetation Management Plan | | |
| Project Number: | 2020-Kent -002 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Severe Storm; Severe Winter Storm | | |
| Description of the Problem: | The Town of Kent is heavily forested and vulnerable to power outages during storms due to trees taking down power lines. Residents have well water that fails when power goes out. Roadways in the Town are blocked by falling trees. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | Undertake a proactive vegetation management program to prevent power outages. The program will consist of tree inventories, developing a maintenance plan, and removing trees identified during the inventory. | | |
| Is this project related to a Critical Facility? | | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Is the critical facility located in the 1% annual chance flood area? | | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| (If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater) | | | |
| Level of Protection: | N/A | Estimated Benefits (losses avoided): | Decreased power outages due to downed trees |
| Useful Life: | 5 Years | Goals Met: | 1, 4, 5 |
| Estimated Cost: | Low | Mitigation Action Type: | NSP |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | 1 Year |
| Estimated Time Required for Project Implementation: | 1 Year | Potential Funding Sources: | Town funds |
| Responsible Organization: | Town of Kent | Local Planning Mechanisms to be Used in Implementation if any: | Capital improvements plan |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | Medium | Continued disruption and damage due to downed trees |
| | Rely upon utilities for vegetation management | Low | Limited resources and ability for utilities to manage rights-of-way |
| | Town Vegetation Management Plan | Low | Proactive management of vegetation to reduce risk |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



| Action Worksheet | | |
|-----------------------------------|---------------------------------|---|
| Project Name: | Kent Vegetation Management Plan | |
| Project Number: | 2020-Kent -002 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Protection of utility services; decreased tree toppling |
| Property Protection | 1 | |
| Cost-Effectiveness | 1 | Program will decrease costs associated with outages |
| Technical | 1 | Vegetation management is technically feasibly |
| Political | 1 | |
| Legal | 1 | |
| Fiscal | 1 | |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 1 | Program mitigates storm/flood hazards |
| Timeline | 1 | Program can be implemented quickly |
| Agency Champion | 1 | Town of Kent will implement program |
| Other Community Objectives | 1 | |
| Total | 14 | |
| Priority (High/Med/Low) | High | |



| Action Worksheet | | | |
|---|---|---|---|
| Project Name: | Repetitive Loss Outreach | | |
| Project Number: | 2020-Kent -003 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Flood | | |
| Description of the Problem: | Due to frequent flooding events in the Town of Kent, there are 2 repetitive loss properties, based on NFIP data. The properties have experienced repetitively flooding as documented by paid NFIP claims. Without mitigation, the properties will continue to be vulnerable to future flood events. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | The municipality will conduct an outreach program to all repetitive loss properties. The outreach will inform the property owners of this repetitive loss status and provide mitigation alternatives that the property can do to protect the structure from future flood losses. If the property owner is interested in structural mitigation measures, the municipality will collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement the mitigation measure chosen (acquisition, elevation, moving). | | |
| Is this project related to a Critical Facility? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| Is the critical facility located in the 1% annual chance flood area? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| (If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater) | | | |
| Level of Protection: | 500-year flood event | Estimated Benefits (losses avoided): | Prevention of future flood losses/damages |
| Useful Life: | Indefinite | Goals Met: | 1, 2, 4, 5 |
| Estimated Cost: | Low- outreach Medium/High- flood structural mitigation | Mitigation Action Type: | EAP |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | 6 months from determination of flood areas/repetitive loss properties |
| Estimated Time Required for Project Implementation: | 1 year | Potential Funding Sources: | Town Funds; HMGP; FMA |
| Responsible Organization: | Town of Kent | Local Planning Mechanisms to be Used in Implementation if any: | Planning Regulations |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | High | Continued flood losses |
| | Structure Relocation | High-TBD | Mitigate flood losses but prohibitive costs and land constraints |
| | Outreach/mitigation | Low/medium | Awareness of flood risk and flood mitigation technical assistance |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



| Action Worksheet | | |
|-----------------------------------|----------------------------|---|
| Project Name: | Repetitive Loss Outreach | |
| Project Number: | 2020-Kent -003 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | |
| Property Protection | 1 | Outreach will enhance education about mitigation |
| Cost-Effectiveness | 1 | Proactive outreach is cost effective |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | Program fulfills NFIP requirement |
| Fiscal | 1 | Outreach offers little or no cost to municipality |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 1 | Outreach can be completed in-house by existing staff |
| Multi-Hazard | 0 | |
| Timeline | 1 | |
| Agency Champion | 1 | |
| Other Community Objectives | 1 | |
| Total | 13 | |
| Priority (High/Med/Low) | High | |