

9.30 TOWN OF THROOP

This section presents the jurisdictional annex for the Town of Throop.

A.) HAZARD MITIGATION PLAN POINT OF CONTACT

| Primary Point of Contact | Alternate Point of Contact |
|---|---|
| <p><u>Name: William Tarby, Supervisor</u> <u>Address: 7471 Robinson Road Auburn, New York 13021</u> <u>Phone Number: 315-252-7373</u> <u>Fax Number:</u> <u>Email address: supervisortarby@verizon.net</u></p> | <p><u>Name: Allen McBride, Highway Superintendent</u> <u>Address: 7471 Robinson Road Auburn, New York 13021</u> <u>Phone Number: 315-252-0032</u> <u>Fax Number:</u> <u>Email address: clerk11@verizon.net</u></p> |

B.) PROFILE

Population

According to the 2010 U.S. Census, the estimated Town of Throop population was 1,990. The Town of Throop is one of the 23 towns in Cayuga County.

Location

The Town of Throop is located in central Cayuga County, bordered by the towns of Mentz to the north, Brutus to the northeast, Sennett to the east, Aurelius to the southwest, and Montezuma to the west. Throop shares its southeast border with the City of Auburn.

Brief History

Like many other Cayuga County towns, the Town of Throop was part of the native Cayuga tribal hunting grounds before being captured within the Central New York Military Tract land reserved for veterans of the Revolutionary War. The first white settlers moved into the area in 1790, and later established the towns of Aurelius, Mentz, and Sennett. In 1859, pieces from each of these towns were split off to form the Town of Throop, named in honor of Ex-Governor Enos T. Throop (Town of Throop, Date Unknown).

Governing Body Format

Home rule is strong in New York State and thus, each town and village has its own governing body. Towns are made up of a Town Board and Supervisor. Along with town and village roads, any public water and sewer systems are operated by the local municipality, though they may cooperate with County departments. Each municipality has charge over its own planning and zoning and uses the County personnel as a resource (Cayuga County, 2010).

Growth/Development Trends

No major residential/commercial development or major infrastructure development are projected at this time for the next five (5) years in the municipality.



C.) NATURAL HAZARD EVENT HISTORY

Cayuga County has a history of natural hazard events as detailed in Volume I, Section 5 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events affecting the County and its municipalities. Below is presented a summary of historical events to indicate the range and impact of natural hazard events in the County. Specific damages have been indicated if available from reference or local sources.

| Type of Event | FEMA Disaster # (if applicable) | County Designated? | Date | Approximate Damage Assessment |
|--|---------------------------------|--------------------|---------------------|---|
| Gasoline leak & explosion in Auburn | | | 3/30/1960 | Killed 5 including 3 firefighters |
| Gasoline spill in Auburn | | | 9/ 1960 | 17,000 gallon gasoline spill at Drake Oil |
| Gasoline spill | | | 5/1966 | 8,500 gallon gasoline spill at Sinclair bulk terminal in Auburn |
| Tropical Storm Agnes | DR-338 | Y – IA, PA | 6/1972 | Auburn's Mill Street dam washed out, Owasco Lake dam weakened, Cayuga Lake rises 1.25 feet higher than 1916 level |
| 10,000 gallon gasoline spill at Agway in Auburn | | | 9/11/1977 | |
| Ice Jam in Port Byron | | | 2/1979 | Evacuated homes and closes schools |
| Radiation incident at Austeel (dental scrap) | | | 1980's | |
| Blizzard followed by lake and river flooding in April | EM-3107 | Yes - PA | 3/17/1993 | Blizzard followed by lake and river flooding in April |
| Dunn & McCarthy fire in Auburn. | | | 11/1993 | |
| Ice jam flooding in Port Byron | | | 1/ 1994 | Evacuated homes and closes schools. |
| County-wide flooding | DR-1095 | Yes - IA, PA | 1/19/1996 | 1 death (MVA) |
| Labor Day storm. | DR-1244 | Yes - IA, PA | 9/1998 | |
| Ice storm | DR-1467 | Yes - IA, PA | 4/2003 | 3 deaths in Cayuga County. |
| NE blackout. | EM-3186 | Yes - PA | 8/23/2003 | |
| Snow emergency declared | EM-3195 | Yes - PA | 1/2004 | |
| Rain/Flooding | DR-1589 | Yes - PA | 4/2005 | Flooding triggered by snow melt and rain. |
| Severe Storms, Flooding, Tornadoes, and Straightline Winds | EM 3341 | No | September 7-8, 2011 | |

Note: N/A = Not applicable

D.) NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

| Rank # | Hazard type | Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c} | Probability of Occurrence | Risk Ranking Score (Probability x Impact) | Hazard Ranking ^b |
|--------|---------------------|--|---------------------------|---|-----------------------------|
| 1 | Flood | 1% Annual Chance: \$360,757 0.2% Annual Chance: \$462,809 | Frequent | 18 | Medium |
| 2 | Severe Storm | 100-Year MRP: \$0 500-Year MRP: \$2,895 Annualized Loss: \$121 | Frequent | 18 | Medium |
| 2 | Severe Winter Storm | 1% of GBS: \$770,803 5% of GBS: \$3,854,014 | Frequent | 48 | High |
| 3 | Transportation | Not available | Rare | 6 | Low |
| 4 | Ground Failure | Karst Exposure \$0 Moderate Incidence \$0 Moderate Susceptibility \$0 | Rare | 6 | Low |

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. High = Total hazard priority risk ranking score of 30 and above
Medium = Total hazard priority risk ranking of 15-29
Low = Total hazard risk ranking below 15
- c. The valuation of general building stock and loss estimates was based on custom inventory for Cayuga County.
- d. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- e. Loss estimates for the flood hazard represents both structure and contents.

E.) CAPABILITY ASSESSMENT

This section identifies the following capabilities of the local jurisdiction:

- Legal and regulatory capability
- Administrative and technical capability
- Community resiliency
- Community political capability
- Community classification.

The town indicates that it has moderate planning, regulatory, administrative, technical, fiscal, community resiliency, and community political capability; with a very willing political capability to enact policies or programs to reduce hazard vulnerabilities in the community.

E.1) Legal and Regulatory Capability

| Regulatory Tools (Codes, Ordinances., Plans) | Do you have this? (Y or N) | Enforcement Authority | Code Citation (Section, Paragraph, Page Number, Date of adoption) |
|--|----------------------------------|--------------------------|---|
| 1) Building Code | Y | Local | |
| 2) Zoning Ordinance | Y | Local | 2012 |
| 3) Subdivision Ordinance | | | |
| 4) NFIP Flood Damage Prevention Ordinance | Y | Local | 2007 |
| 4a) Cumulative Substantial Damages | | | |
| 4b) Freeboard | | | |
| 5) Growth Management | | | |
| 6) Floodplain Management / Basin Plan | | | |
| 7) Stormwater Management Plan/Ordinance | | | |
| 8) Comprehensive Plan / Master Plan/ General Plan | Y | Local | Comprehensive Plan, April 9, 2008 |
| 9) Capital Improvements Plan | | | |
| 10) Site Plan Review Requirements | | | |
| 11) Open Space Plan | | | |
| 12) Stream Corridor Management Plan | | | |
| 13) Watershed Management or Protection Plan | | | |
| 14) Economic Development Plan | | | |
| 15) Comprehensive Emergency Management Plan | | | |
| 16) Emergency Response Plan | | | |
| 17) Post Disaster Recovery Plan | | | |
| 18) Post Disaster Recovery Ordinance | | | |
| 19) Real Estate Disclosure Requirement | | State | State Requirement |
| 20) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)] | | | |

E.2) Administrative and Technical Capability

| Staff/ Personnel Resources | Available (Y or N) | Department/ Agency/ Position |
|--|-----------------------|--|
| 1) Planner(s) or Engineer(s) with knowledge of land development and land management practices | Y | Zoning Officer |
| 2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure | Y | Zoning Officer |
| 3) Planners or engineers with an understanding of natural hazards | Y | Zoning |
| 4) NFIP Floodplain Administrator | Y | Code Enforcement Officer/Zoning Officer/Highway Superintendent |
| 5) Surveyor(s) | N | |
| 6) Personnel skilled or trained in "GIS" applications | N | |
| 7) Scientist familiar with natural hazards | N | |
| 8) Emergency Manager | Y | Highway Superintendent |
| 9) Grant Writer(s) | Y | Councilperson |
| 10) Staff with expertise or training in benefit/cost analysis | N | |

E.4) Community Classifications

| Program | Classification | Date Classified |
|--|----------------|-----------------|
| Community Rating System (CRS) | NP | |
| Building Code Effectiveness Grading Schedule (BCEGS) | | |
| Public Protection | | |
| Storm Ready | NP | |
| Firewise | NP | |

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

The classifications listed above relate to the community's effectiveness in providing services that may impact its vulnerability to the natural hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class one (1) being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

F. MITIGATION STRATEGY

F.1) Past Mitigation Actions/Status

The jurisdiction did not provide information regarding mitigation actions which have completed and/or been incorporated into its planning and land use mechanisms.

F.2) Hazard Vulnerabilities Identified

The Town identifies the following as vulnerabilities:

- Kernan Road- flooding issues and undersized culvert
- Griffin Road- flooding issues
- Turnpike Road- erosion at the bridge over Cold Springs Brook

The Cayuga County Soil and Water Conservation District (SWCD) has identified the following vulnerabilities for the Town of Throop, and has proposed hazard mitigation initiatives corresponding to these vulnerabilities, as shown in Section F.3 of this annex:

- Cold Springs Brook, a tributary that flows to the Seneca River, has been identified as having flooding issues. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland and other property is lost. The predominant land use adjacent to the watercourse is agriculture and residential. Streambank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- Crane Brook, a tributary that flows to the Seneca River, has been identified as having erosion issues. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland and other property is lost. The predominant land use adjacent to the watercourse is agriculture and residential. Streambank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- The Owasco Outlet has been evaluated for flooding and erosion concerns. Streambank erosion and woody debris have been identified as primary concerns along the stretch.

NFIP Summary

| Municipality | # Policies (1) | # Claims (Losses) (1) | Total Loss Payments (2) | # Rep. Loss Prop. (1) | # Severe Rep. Loss Prop. (1) | # Polices in 100-year Boundary (3) | # Polices in 500-Boundary (3) | # Policies Outside the 500-year Flood Hazard (3) |
|--------------|----------------|-----------------------|-------------------------|-----------------------|------------------------------|------------------------------------|-------------------------------|--|
| Throop (T) | 2 | 2 | \$1,937 | 0 | 0 | 0 | 0 | 2 |

Source:

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, in June 2012 using the "Comm_Name". These statistics are current as of June, 2012. Please note the total number of repetitive loss properties includes the severe repetitive loss properties.
- (2) Total building and content losses from the claims file provided by FEMA Region 2 (current as of June, 2012).
- (3) The policy locations used are based on the latitude and longitude provided by FEMA Region 2.

It is estimated that in the Town of Throop, 62 residents live within the 1% annual chance flood area (NFIP Special Flood Hazard Area). Of the municipality's total land area, 7.8% is located within the 1% annual chance flood area. \$3,265,100 (2.8%) of the municipality's general building stock replacement cost value (structure and contents) is located within the 1% annual chance flood area. There are 2 NFIP policies in the community. While there are 0 policies located within the 1% annual chance flood area, there are only policies issues to property owners in the 1% annual chance flood area. FEMA has identified 0 Repetitive Loss (RL) including 0 Severe Repetitive Loss (SRL) properties in the municipality.

HAZUS-MH estimates that for a 1% annual chance flood, \$360,757 (0.3%) of the municipality's general building stock replacement cost value (structure and contents) will be damaged and 436 tons of debris could be generated. HAZUS-MH estimates the following damage and loss of use to critical facilities in the community as a result of a 1% annual chance flood event:

Critical Facilities Located in the 1-Percent and 0.2-Percent Annual Chance Flood Boundaries and Estimated Potential Damage

| Name | Municipality | Type | Exposure | | Potential Loss from 1% Flood Event (2) | Potential Loss from 0.2% Flood Event (2) |
|-----------|--------------|----------------|----------|-----------|--|--|
| | | | 1% Zone | 0.2% Zone | | |
| Town Hall | Throop (T) | Municipal Hall | | X | | |

Source: HAZUS-MH 2.1

Note: C = City; NA = Not available; T = Town; V = Village

X = Facility located within the DFIRM boundary.

(1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).

(2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. The flood model does not estimate damages for HAZMAT facilities.

(3) Town officials reported that part of the lot is possibly in the flood zone, but the municipal building itself is not.

Please refer to the Hazard Profiles for additional vulnerability information relevant to this jurisdiction.

F.3) PROPOSED HAZARD MITIGATION INITIATIVES

Note some of the identified mitigation initiatives in Table F 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.

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals and Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|------------|---|--|---------------------|--------------------------|---|--------------------|----------------|--|-----------------|----------|---------------------|
| TP-1 | Develop a comprehensive beaver management plan along flood prone streams and marshes in the town. | New and Existing | Flood | 1-5 1-6 | Municipality with support from County and NYSDEC. | Medium | Low | Municipal | Short | High | NR |
| TP-2 | Develop a debris control plan for all protected and unprotected streams in the county and work with County agencies, towns, villages and landowners to implement. | New and Existing | Flood | 1-5 1-6 | County, municipality | High | Low | County, Municipal, Grants | Short | High | NR |
| TP-3 | Explore and select corrective measure for Kernan Road (sometimes known as Mills Road) flooding issues. | Existing | Flood | 1-1 1-5 | Municipality | Medium | Medium | Municipal, grants | Short | Medium | PP |
| TP-4 | Explore and select corrective measure for Griffin Road flooding issues. | Existing | Flood | 1-1 1-5 | Municipality | Medium | Medium | Municipal, grants | Short | Medium | PP |
| TP-5 | Explore and select corrective measure for Turnpike Road erosion (County Road) over Cold Springs Brook. | Existing | Land subsidence | 1-1 1-5 | County, Municipality | Medium | Low | County, Municipal, Grants | Short | High | PP |
| TP-6 | The Cayuga SWCD proposes to complete bank stabilization as needed along the Cold Springs Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Enhancement of the floodplain will also lead to a reduction of damage during a major storm event. Portions of the stream are also prone to ice jams. These cause flooding and an increase in | Existing | Flood | 4-1 4-2 4-3 4-4 | Cayuga SWCD; NYSDEC; USACE; | High | High | HMA grants, State, County, local funding | On-going DOF | Medium | NR |

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| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals and Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|------------|--|--|---------------------|--------------------------|-----------------------------------|--------------------|----------------|--|--------------|----------|---------------------|
| | erosion due to bed and bank scour, as well as having the potential for causing significant property damage. Significant losses to valuable agricultural land, forestland and property would be mitigated. | | | | | | | | | | |
| TP-7 | The Cayuga SWCD proposes to complete bank stabilization as needed along the Crane Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Enhancement of the floodplain will also lead to a reduction of damage during a major storm event. Significant losses to valuable agricultural land, forestland and property would be mitigated. | Existing | Flood | 4-1 4-2 4-3 4-4 | Cayuga SWCD; NYSDEC; USACE; | High | High | HMA grants, State, County, local funding | On-going DOF | Medium | NR |
| TP-8 | The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams from the channel of the Owasco Outlet watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the streams' ability to reach its' floodplain will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be | Existing | Flood | 4-1 4-2 4-3 4-4 | Cayuga SWCD; NYSDEC; USACE; | High | High | HMA grants, State, County, local funding | On-going DOF | Medium | NR |



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| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals and Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|------------|--|--|---------------------|---------------------------------|---|--------------------|----------------|---|------------|----------|---------------------|
| | mitigated. Portions of the outlet are also prone to ice jams. These cause flooding and an increase in erosion due to bed and bank scour. | | | | | | | | | | |
| TP-9 | <p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> • Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. • Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. | N/A | All Hazards | 2-1 2-2 2-3 2-4 2-5 | Municipality with support from Planning Partners, County Planning, NYSOEM, FEMA | Medium | Medium | Municipal Budget, HMA programs with local or county match | Short Term | High | PE |
| TP-10 | <p>Develop programs/procedures to capture and archive loss data from events. Examples include:</p> <ul style="list-style-type: none"> • Record location and length of roadway closures; • Develop a database of residential and commercial property damage, including permit history for such repairs; • High water marks, | N/A | All Hazards | 1-3 1-4 | Municipality with support from County, NYSOEM and FEMA | Medium | Medium | Municipal Budget | Short | Medium | PR |



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| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals and Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|------------|---|--|---------------------|--------------------------|---|--------------------|----------------|---|---------------------|----------|---------------------|
| | perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs). | | | | | | | | | | |
| TP-11 | Obtain and install backup power sources at critical facilities. | N/A | All Hazards | 3-3 3-5 | Municipality with support from County, NYSOEM and FEMA | Medium | Medium | Municipal Budget | Short | Medium | ES |
| TP-12 | Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. | N/A | All Hazards | 1-1 1-3 1-4 | Hazard Mitigation Plan Coordinator | Medium-High | Medium-High | FEMA Mitigation Grant Programs with local match | Long Term DOF | Medium | PR |
| TP-13 | Support ongoing updates of Comprehensive Emergency Management Plans | New and Existing | All Hazards | 1-6 | Municipality with support from County Emergency Management | Low | Low | Municipal Budget | On-going | High | PR |
| TP-14 | Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations | N/A | All Hazards | 3-2 3-5 3-6 3-7 | Municipality with support from County, NYSOEM, FEMA and surrounding communities | Medium | Low | Municipal Budget | Short Term | High | PR, ES |
| TP-15 | Identify and develop agreements with entities that can provide support with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record-keeping | N/A | All Hazards | 3-7 | Municipality with support from County, NYSOEM and FEMA | Medium | Medium | Municipal Budget | Short Term | Medium | PR, ES |
| TP-16 | Work with regional agencies (i.e. County and NYSOEM) to help develop damage assessment capabilities at the local level through such | N/A | All Hazards | 3-6 3-7 | Municipality with support from County, NYSOEM and FEMA | Medium | Medium | Municipal Budget, FEMA HMA and HLS grant programs | Short-Long Term DOF | Medium | PR |



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| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals and Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|------------|---|--|---------------------|--------------------------|--|--------------------|--------------------------------|--|----------|----------|---------------------|
| | things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers). | | | | | | | | | | |
| TP-17 | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 | New and Existing | All Hazards | 3-1 3-5 | Municipality with support from Planning Partners, County Planning, NYSOEM, FEMA | High | Low – High (for 5 year update) | Municipal Budget, FEMA planning grants | On-going | High | PR |
| TP-18 | Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives below. | N/A | Flood, Severe Storm | 1-4 1-6 1-7 4-3 | Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA | High | Low-Medium | Municipal Budget | Ongoing | High | PR, PE |
| TP-19 | Obtain and archive elevation certificates | N/A | Flood, Severe Storm | 1-4 1-6 | NFIP Floodplain Administrator | Medium | Low | Municipal Budget | On-going | High | PR |
| TP-20 | Promote the participation of Floodplain Administrators within the planning process and other activities. | N/A | Flood | 1-4 1-7 | Municipality with support from County, NYSOEM and FEMA | Medium | Medium | Municipal Budget | Short | Medium | PR |
| TP-21 | Adopt regulations for undergrounding utilities in new developments. | N/A | Severe Storm | 1-6 3-1 | Municipal Council | Medium | Low | Municipal Budget | Short | H | PR |
| TP-22 | Provide public education and outreach on proper installation and/or use of | N/A | Severe Storm | 2-1 2-2 | Municipal Clerk | Medium | Low | Municipal Budget | Short | H | PR |



| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals and Objectives Met | Lead and Support Agencies | Estimated Benefits | Estimated Cost | Sources of Funding | Timeline | Priority | Mitigation Category |
|------------|---|--|---------------------|--------------------------|----------------------------|--------------------|----------------|--------------------|----------|----------|---------------------|
| | backup power | | | | | | | | | | |
| TP-23 | Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption. | N/A | Severe Storm | 1-6 4-3 | Municipal Code Enforcement | Medium | Low | Municipal Budget | Short | H | PR |

Notes:

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (NA) is inserted if this does not apply.

Acronyms and Abbreviations:

| | |
|--------|--|
| ARC | American Red Cross |
| DPW | Department of Public Works |
| FEMA | Federal Emergency Management Agency |
| HMA | Hazard Mitigation Assistance |
| HMP | Hazard Mitigation Proposal |
| N/A | Not applicable |
| NFIP | National Flood Insurance Program |
| NYSOEM | New York State Office of Emergency Management |
| NOAA | National Oceanic and Atmospheric Administration |
| SWCD | Cayuga County Soil and Water Conservation District |
| USACE | U.S Army Corp of Engineers |
| USGS | U.S. Geological Survey |

Costs:

Where actual project costs have been reasonably estimated:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

Medium = Could budget for under existing work-plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA’s benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:



Low = Long term benefits of the project are difficult to quantify in the short term.

Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Potential FEMA HMA Funding Sources:

PDM = Pre-Disaster Mitigation Grant Program

FMA = Flood Mitigation Assistance Grant Program

RFC = Repetitive Flood Claims Grant Program

SRL = Severe Repetitive Loss Grant Program

HMGP = Hazard Mitigation Grant Program

Timeline:

Short = 1 to 5 years. Long Term= 5 years or greater. OG = On-going program.

DOF = Depending on funding.

Notes (for Mitigation Type):

1. PR=Prevention: Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built Examples of these are acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
2. PP= Property Protection: These actions also 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 planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
3. PE=Public Education and Awareness: 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 school-age and adult education programs.
4. NR=Natural Resource Protection: 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.
5. SP=Structural Projects: 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.
6. ES=Emergency Services: 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.

G.) PRIORITIZATION OF MITIGATION INITIATIVES

| Initiative # | # of Objectives Met | Benefits | Costs | Do Benefits equal or exceed Costs? (Yes or No) | Is project Grant eligible? (Yes or No) | Can Project be funded under existing programs/budgets? (Yes or No) | Priority (High, Med., Low) |
|--------------|---------------------|----------|-------|---|---|---|-------------------------------|
| TP-1 | 2 | M | L | Y | N | Y | H |
| TP-2 | 2 | H | L | Y | Y | N | H |
| TP-3 | 2 | M | M | Y | Y | N | M |
| TP-4 | 2 | M | M | Y | Y | N | M |
| TP-5 | 2 | M | L | Y | Y | N | H |
| TP-6 | 4 | H | H | Y | Y | N | M |
| TP-7 | 4 | H | H | Y | Y | N | M |
| TP-8 | 4 | H | H | Y | Y | N | M |
| TP-9 | 4 | H | H | Y | Y | N | M |
| TP-10 | 5 | M | M | Y | Y | N | H |
| TP-11 | 2 | M | M | Y | Y | Y | M |
| TP-12 | 2 | M | M | Y | Y | Y | M |
| TP-13 | 3 | M | M | Y | Y | N | M |
| TP-14 | 1 | L | L | Y | N | Y | H |
| TP-15 | 4 | M | L | Y | N | Y | H |
| TP-16 | 1 | M | M | Y | N | Y | M |
| TP-17 | 2 | M | M | Y | Y | N | M |
| TP-18 | 2 | H | L | Y | Y | N | H |
| TP-19 | 4 | H | L | Y | N | Y | H |
| TP-20 | 2 | M | L | Y | N | Y | H |
| TP-21 | 2 | M | M | Y | N | Y | M |
| TP-22 | 2 | M | L | Y | N | Y | H |
| TP-23 | 2 | M | L | Y | N | Y | H |
| TP-1 | 2 | M | L | Y | N | Y | H |

Notes: H = High. L = Low. M = Medium. N = No. N/A = Not applicable. Y = Yes.



Explanation of Priorities

High Priority = A project that meets multiple objectives (i.e., multiple hazards), benefits exceeds cost, has funding secured or is an on-going project and project meets eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation Grant Program (PDM) programs. High priority projects can be completed in the short term (1 to 5 years).

Medium Priority = A project that meets goals and objectives, benefits exceeds costs, funding has not been secured but project is grant eligible under, HMGP, PDM or other grant programs. Project can be completed in the short term, once funding is completed. Medium priority projects will become high priority projects once funding is secured.

Low Priority = Any project that will mitigate the risk of a hazard, benefits do not exceed the costs or are difficult to quantify, funding has not been secured and project is not eligible for HMGP or PDM grant funding, and time line for completion is considered long term (1 to 10 years). Low priority projects may be eligible other sources of grant funding from other programs. A low priority project could become a high priority project once funding is secured as long as it could be completed in the short term.

Prioritization of initiatives was based on above definitions: Yes

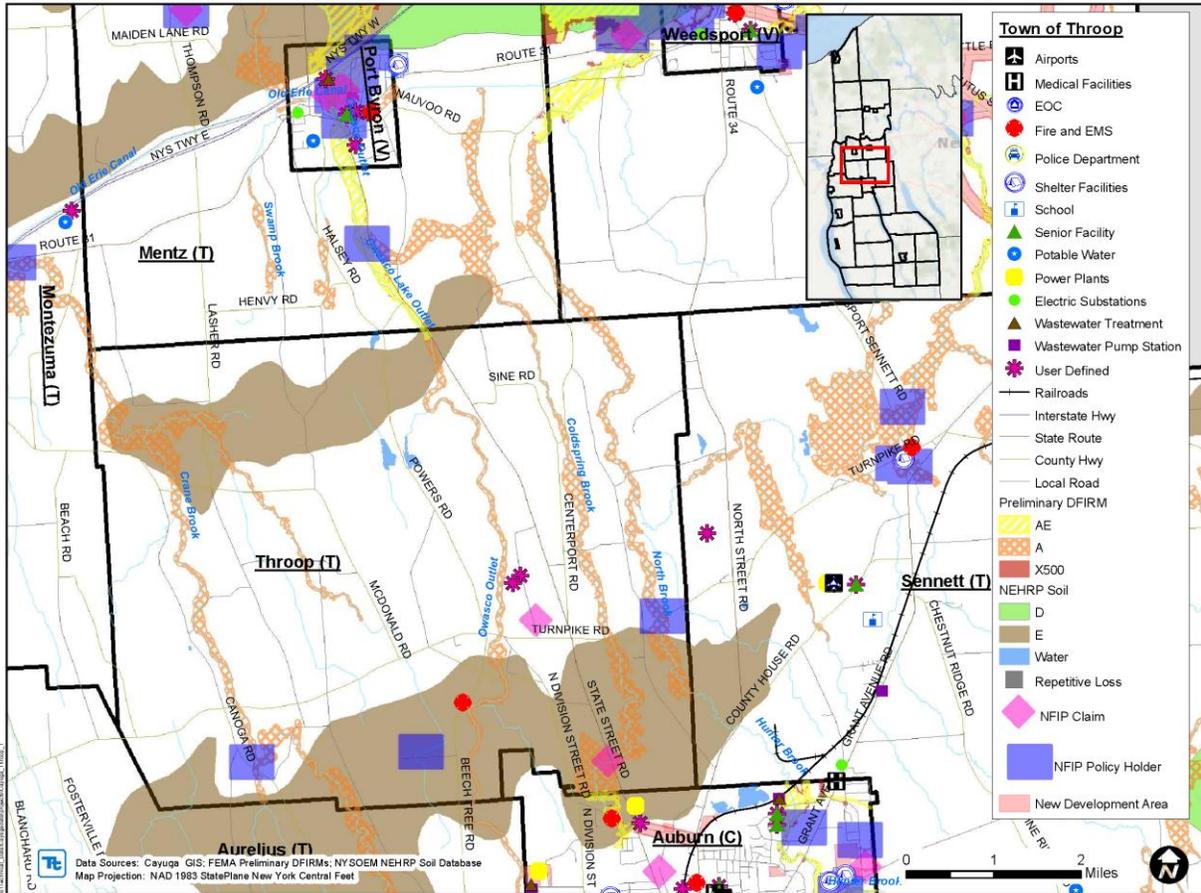
Prioritization of initiatives was based on parameters other than stated above: Not applicable.

H.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

No information at this time.

I.) HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map has been generated for the jurisdiction to illustrate the probable areas impacted within the municipality and is provided on the next page. 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. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the jurisdiction has significant exposure. The Planning Area maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan.



J.) ADDITIONAL COMMENTS

No additional comments at this time.



K.) NFIP ADMINISTRATOR INPUT

1. Planning and Regulatory

The Town of Throop joined the NFIP on February 13, 2013, and is currently an active member of the NFIP. Flood Insurance Rate Maps are not in effect for the community. The Town of Throop is proactive in floodplain management with ordinances stated within Local Law since 1987. The Town of Throop has not completed Community Assistance Visits (CAV), and does not cite a need for a CAV. The Town of Throop has no outstanding compliance issues.

2. Administrative and Technical Staff

The Town of Throop has identified personnel to manage and uphold the Town of Throop's compliance with the NFIP. Dedicated staff include: Allen J. McBride, Highway Superintendent, Floodplain Manager, and NFIP Administrator. In addition, the town has supplementary staff for which NFIP is an auxiliary duty; personnel include Code Enforcement Officer LaDouce and Zoning Officer Weed. Staff members are both dedicated and supplementary and complete numerous tasks for the Town of Throop to be in compliance with NFIP standards.

- Section 1006 of the Zoning Law:
 - a) The Zoning Officer for the Town of Throop when reviewing applications for Zoning Permits, including the plans and specification for the proposed construction, will review all building permit applications to determine if the proposed construction is consistent with Local Law of the Year 1987 and is consistent with the need to minimize flood damage.

3. Financial

As of April 24, 2013, there are 2 policies enforced within the Town of Throop. Both of the 2 insurance policies are located outside the SFHA. As of June, 2012, there have been zero repetitive loss properties and zero severe repetitive loss properties within the Town of Throop.

4. Educational

None at this time.

5. Actions to Strengthen the Program

The Town of Throop has currently taken steps to strengthen the NFIP program and its administration.