

# MUNICIPAL ANNEX | Town of Triangle





1,982



Total Land (square miles)

39.8



Total Number of Buildings

915

Percent of Buildings in Regulatory Floodplain

0.2%



Number of National Flood Insurance Program (NFIP) Policies

0

Percent of NFIP Policies in Regulatory Floodplain

0%



Number of Repetitive Loss (RL) Properties

0

Number of Severe Repetitive Loss (SRL) Properties

0



Proposed Project Types Structure and Infrastructure Projects and Local Plans and Regulations



Multi-Hazard



## 9.20 Town of Triangle

This section presents the jurisdictional annex for the Town of Triangle. 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 in order 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 Triangle'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.

## 9.20.1 Hazard Mitigation Planning Team

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

Primary Point of Contact	Alternate Point of Contact
Name: Charles Manasse Title: Supervisor Phone Number: 607-692-4332 Ext 1021 Address: PO Box 289, Whitney Point, NY 13862 Email: trianglesupervisor@stny.rr.com	Name: Dana Madden Title: Highway Superintendent Phone Number: 607-692-3270 Address: PO Box 289, Whitney Point, NY 13862 Email: trianglehighwaydept@frontier.com
NFIP Floodplain Administrator	
Name: Charles Manasse Title: Supervisor Phone Number: 607-638-4332 Ext 1021	

## 9.20.2 Municipal Profile

Email: trianglesupervisor@stny.rr.com

Address: PO Box 289, Whitney Point, NY 13862

The Town of Triangle is located in the northeastern part of Broome County, NY. The Town includes the hamlets of Cloughs Corners, Triangle, and Upper Lisle. The Village of Whitney Point is located within the Town of Triangle. For more information on the Village of Whitney Point, refer to Section 9.23. The Town of Triangle has a total area of 39.8 square miles. The Town of Triangle is located in the northeastern part of Broome County, NY. The town is bordered on the east by Chenango County and to the north by Cortland County. The Tioughnioga River flows through the southwestern portion of the town. The Town of Triangle has a unique designation of having a large body of water (Dorchester Lake) that is regulated by the US Army Corps of Engineers, and Broome County. Thus, the Town has very little to say in the management of the land surrounding the lake. The 2016 estimated population was 1,938, a 2.2% decrease from the 2010 Census (1,982).

Home rule is strong in New York State and thus, each town and village has its own governing body. The Town of Triangle is governed by a Supervisor and a Town Council made up of four Council members.

Data from the 2016 U.S. Census American Community Survey estimates that 4.3% of the town population is five years of age or younger, and 15.5% is 65 years of age or older.

## **History and Cultural Resources**

The region was first settled around 1791 and the town was formed in 1831 from the Town of Lisle. The town is called Triangle because of its geographical location that the settlers of the area called the "Chenango Triangle." Eventually, Chenango was dropped from its name and has since been known as Triangle.





## **Growth/Development Trends**

The Town of Triangle did not note any residential/commercial development that has occurred since 2013 or any planned major residential or commercial development, or major infrastructure development anticipated in the next five years.

Table 9.20-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development		
Recent Development from 2013 to present							
None							
Known or Anticipated Development in the Next Five (5) Years							
None							

<sup>\*</sup> Only location-specific hazard zones or vulnerabilities identified.

## 9.20.3 Hazard Event History Specific to the Town of Triangle

Broome County has a history of natural hazard events as detailed in Volume I, Section 5.0 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 Triangle's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Broome County. Table 9.20-2 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 9.20-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Broome County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 27- November 8, 2012	Hurricane Sandy (EM- 3351)	Yes	The remnants of Hurricane Sandy moved over the area bringing high winds and precipitation	While the County was impacted, the Town did not report damages.
June 26- July 10, 2013	Severe Storms and Flooding (DR-4219)	Yes	The County was impacted by a series of severe storms and flash flood events.	While the County was impacted, the Town did not report damages.
June 14, 2015	Flash Flood	No	A warm front stalled across New York and northern Pennsylvania, providing the focus for repeating clusters of thunderstorms in the Finger Lakes and Southern Tier NY regions. A tropical-like airmass was in place allowing for a stripe of 2-4 inches of very heavy rain to fall in a narrow band extending from near Watkins Glen to areas north of Binghamton. Severe flash flooding was encountered with numerous roads and culverts destroyed by raging water.	While the County was impacted, the Town did not report damages.
March 14- 15, 2015	Severe Winter Storm and Snowstorm (DR-4322)	Yes	A record snowfall of between 25 and 35 inches of snow fell. Snowfall rates reached up to 5 inches per hour especially during the onset of the storm. The Greater Binghamton Airport broke an all-time	The Town applied and received funding through FEMA Disaster 4322 DR NY PA # 007-75319-00.



Dates of Event	Event Type (Disaster Declaration if applicable)	Broome County Designated?	Summary of Event daily snowfall record with 32.4 inches and a 2-day snowfall record of 34.9	Municipal Summary of Damages and Losses
July 23- 24, 2017	Flash Flood	No	inches.  Heavy rain producing thunderstorms developed during the late afternoon and evening hours as an upper level jet stream punched into the area. Widespread thunderstorms produced swaths of 3 to 4 inches of rain in just a few hours' time during the late evening and overnight hours. Rapid rises of area streams and creeks resulted in severe flash flooding.	While the County was impacted, the Town did not report damages.
August 2018	Severe Storms and Flooding (DR-4397)	Yes	A slow-moving storm tracked north from New Jersey to northern New York. This system triggered several rounds of heavy rain producing thunderstorms which caused severe flash flooding and major damages in several locations.	While the County was impacted, the Town did not report damages.
September 2018	Flash Flood	No	Heavy rain fell over Broome County which led to localized flash flooding in the county.	While the County was impacted, the Town did not report damages.

Notes:

EM Emergency Declaration (FEMA)
FEMA Federal Emergency Management Agency
DR Major Disaster Declaration (FEMA)

N/A Not applicable

## 9.20.4 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 hazards of greatest concern and risk to the Town of Triangle. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

## **Vulnerability Assessment**

This section provides a summary of exposure and impacts from significant hazards of concern as identified by the Town of Triangle.

#### **Hazard Risk Ranking**

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 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 town or village may have differing degrees of risk exposure and vulnerability compared to Broome County 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 Triangle. The Town of Triangle 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.





During the review of the hazard/vulnerability risk ranking, the Town revised the ranking of severe winter storm from medium to high because of the frequency of events and the extent of damages the events can bring to the town.

Table 9.20-3. Town of Triangle Municipal Hazard Ranking Input

HAZARD	Drought	Earthquake	Extreme Temperature	Invasive Species	Flood	Severe Storm	Severe Winter Storm	Wildfire
RELATIVE RISK FACTOR	Medium	Low	Medium	Low	Low	High	High*	Medium

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

High = Total hazard priority risk ranking score of 5 and above

 $Medium = Total \ hazard \ priority \ risk \ ranking \ of \ 3.9 - 4.9$ 

Low = Total hazard risk ranking below 3.8

#### **Critical Facilities Flood Risk**

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 <a href="http://tinyurl.com/6-CRR-NY-502-4">http://tinyurl.com/6-CRR-NY-502-4</a>. 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 (NYSDHSES 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 9.20-4. Potential Flood Losses to Critical Facilities** 



Source: Hazus 4.2

No estimated damages calculated by HAZUS-MH

#### **Identified Issues**

The municipality has identified the following vulnerabilities within their community:

- Town Hall is not equipped with backup power capabilities
- Highway Garage is not equipped with backup power capabilities
- Single passage over two major rivers: Tioghnioga and Otselic, if there was to be disaster involving either the rivers or the bridges over the rivers traffic congestion in and out of the village would prevent evacuation.

## 9.20.5 Capability Assessment



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



This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

## **Planning and Regulatory Capability**

The table below summarizes the regulatory tools that are available to the Town of Triangle.

**Table 9.20-5. Planning and Regulatory Tools** 

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Comprehensive Plan	Yes	Local	Planning	Comprehensive Plan
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	No	-	-	-
Stormwater Management Plan	No	-	-	-
Open Space Plan	No	-	-	-
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	-
Comprehensive Emergency Management Plan	Yes	Local or County	Broome County	County Comprehensive Emergency Management Plan
Emergency Operation Plan	No	-	-	-
Evacuation Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	Yes	County	Broome County	Hazards Material Response Plan
Regulatory Capability				
Building Code	Yes	State & Local	New York State	New York State Building Code
Zoning Ordinance	No	Local		-





Man AD				
Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
			-	
Subdivision Ordinance	No	State	-	-
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Town Supervisor	Not identified during the plan update process
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes	State, Local	Town Supervisor	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Building Inspector	Prior to Permit issuance site plan is reviewed
Stormwater Management Ordinance	No	-	-	-
Municipal Separate Storm Sewer System (MS4)	No	-	-	-
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	unknown	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

## **Administrative and Technical Capability**

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

Table 9.20-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability	(Tes of No)	Department/ Agency/Position
	1	
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	Yes	Highway
Mutual aid agreements	Yes	Broome County
Flood Committee	No	-
Technical/Staffing Capability		



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	No	-
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	No	-
Planners or engineers with an understanding of natural hazards	No	-
NFIP Floodplain Administrator (FPA)	Yes	Highway Superintendent
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
Warning systems/services	Yes	Broome County Emergency
Emergency Manager	Yes	-
Grant writer(s)	No	-
Staff with expertise or training in benefit/cost analysis	Yes	Supervisor
Professionals trained in conducting damage assessments	Yes	Supervisor/Highway Superintendent

## **Fiscal Capability**

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

**Table 9.20-7. Fiscal Capabilities** 

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	No
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

## **Community Classifications**

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





Table 9.20-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	N/A.	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	N/A.	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	N/A.	State and County	-
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	N/A.	-	-
Firewise Communities classification	N/A.	-	-
Natural disaster/safety programs in/for schools	unknown	-	-
Organizations with mitigation focus (advocacy group, non-government)	No	-	-
Public education program/outreach (through website, social media)	Yes	National	Red Cross
Public-private partnership initiatives addressing disaster-related issues	No	-	-
Other	No	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the 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 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 (<a href="https://www.isomitigation.com/bcegs/">https://www.isomitigation.com/bcegs/</a>)
- The ISO Mitigation online ISO's Public Protection website at https://www.isomitigation.com/ppc/
- New York State Climate Smart Communities (http://www.dec.ny.gov/energy/56876.html)
- The National Weather Service Storm Ready website at <a href="https://www.weather.gov/stormready/communities">https://www.weather.gov/stormready/communities</a>
- The National Firewise Communities website at <a href="http://firewise.org/">http://firewise.org/</a>

#### **Self-Assessment of Capability**

The table below provides an approximate measure of the Town of Triangle's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.





Table 9.20-9. Self-Assessment Capability for the Municipality

	Degree of Hazard Mitigation Capability					
Area	Limited (If limited, what are your obstacles?)	Moderate	High			
Planning and regulatory capability	X – limited staff and funding					
Administrative and technical capability	X – limited staff and funding					
Fiscal capability	X – limited staff and funding					
Community political capability	X – limited staff and funding					
Community resiliency capability		X				
Capability to integrate mitigation into municipal processes and activities		X				

## **National Flood Insurance Program**

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

## NFIP Floodplain Administrator (FPA)

Charles Manasse, Supervisor

## National Flood Insurance Program (NFIP) Summary

The town does not maintain lists or inventories of properties that have been damaged by floods. There is very little flood exposure or risk in the town. At the time of this plan update, there are no known homeowners interested in the mitigation of their properties. The following table summarizes the NFIP statistics for the Town of Triangle.

Table 9.20-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Triangle (T)	0	1	\$3,427	0	0	0

Source: FEMA 2018

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of May 31, 2018. The

total number of repetitive loss properties does not include severe repetitive loss properties

RL Repetitive Loss; SRL Severe Repetitive Loss

### Resources

The town supervisor is the primary person assuming the responsibilities of floodplain administration but has assistance from the highway superintendent when needed. Minimum floodplain-related services are provided to the community as flooding rarely occurs. If a resident was to have questions related to flooding, the town supervisor will provide assistance. Additionally, the town encourages residents to elevate equipment in basements if residents are prone to basement flooding.

#### **Compliance History**

The Town of Triangle is in good standing with the NFIP. According to data from NYSDEC, the Town has not had a compliance audit.





#### Regulatory

The town's flood damage prevention ordinance meets the minimum FEMA and State requirements. In addition, the town board performs the reviews of variances and permits and considers efforts to reduce hazard risks in the town.

## **Integration of Hazard Mitigation into Existing and Future Planning Mechanisms**

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, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures, which is also indicated below.

#### Planning

## **Existing Integration**

**Comprehensive Plan:** The Town of Triangle's Comprehensive Plan includes areas of natural hazard risk and refers to the Countywide Hazard Mitigation Plan.

**Hazard Mitigation Plan:** The Town of Triangle participates in the update of the Broome County Hazard Mitigation Plan. The town supports the implementation of the Hazard Mitigation Plan into their local plans, laws, and day-to-day activities.

## Opportunities for Future Integration

During the next update of the town's comprehensive plan, the town will incorporate updated information identified in the Broome County Hazard Mitigation Plan.

#### Regulatory and Enforcement (Ordinances)

#### **Existing Integration**

Broome County regulates the building codes in the town; the town has a building codes enforcement officer who enforces the building codes.

#### **Opportunities for Future Integration**

The town is in the process of creating ordinances for wind and solar power. While creating the ordinances, the town will refer to the county's hazard mitigation plan.

When the updated FEMA flood maps are adopted, the town will update their flood damage prevention ordinance, utilizing the updated maps and the hazard mitigation plan. This is helping the town continue to participate in the NFIP.

## Operational and Administration

## **Existing Integration**

The Town of Triangle does not have a Planning Board or Zoning Board of Adjustments. The Board of Councilmen includes functions with respect to managing natural hazard risk. NFIP Floodplain Management functions are performed by the Town Supervisor. The Town has staff who have experience with developing Benefit-Cost Analysis, have experience in preparing grant applications for mitigation projects, and can perform Substantial Damage Estimates. Staff receive training or continuing professional education which supports





natural hazard risk reduction and participate in groups that support natural hazard risk reduction/build hazard management capabilities, but no staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk.

The Town of Triangle Highway Department has programs in place to maintain trees throughout the municipality to reduce the risk of downed trees on power lines and roadways. Additionally, the town performs maintenance of pipes and culverts to keep them clear of debris and prevent or reduce road washouts during periods of heavy rain. The Highway Superintendent supports FEMA and NYSDHSES with paperwork after disasters, conduct damage assessment, and assist with the preparation of project worksheets, providing pertinent information to receive FEMA reimbursements.

The town highway department maintains mutual aid agreements with surrounding municipalities and provides assistance to municipalities as needed. In addition, the fire department maintains mutual aid agreements with surrounding municipal fire departments.

## Opportunities for Future Integration

Currently, the town does not encourage the local fire departments to review local site plans for future development. In the future, the town will consider involving the fire departments to review the local site plans prior to development beginning.

#### **Funding**

#### **Existing Integration**

The Town of Triangle's municipal budget does not include a line item for mitigation projects but has a Capital Improvements Budget that includes budget for mitigation-related projects. The Town has been awarded grant funding for mitigation projects in the past including the Wilson Hill Storm Water project (New York State/CHIPS) and the Hemlock Hill Storm Water project (New York State /CHIPS).

#### Opportunities for Future Integration

The Town of Triangle should continue to apply for grant funding and allocate a portion of the municipal budget for mitigation projects.

#### **Education and Outreach**

#### **Existing Integration**

The Town of Triangle does not have any education or outreach programs in place.

#### **Opportunities for Future Integration**

The Town could establish education/outreach programs. The Town could also create a municipal website to host community news and information and use the site for education actions.

#### Sheltering, Evacuation, and Temporary Housing

Temporary housing, evacuation routes, and sheltering measures must 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.

Refer to Section 4.6.5 of Volume 1 of this plan for a description of resources identified by the county to support municipalities with the identification of evacuation, sheltering, and temporary and permanent housing.





#### Temporary and Permanent Housing

The Town of Triangle has not identified potential sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired.

• Broome County fairgrounds: located outside of floodplain and has sewer, water, and electric hookups.

## **Evacuation and Sheltering Needs**

The Town of Triangle has designated the following emergency shelters:

- Whitney Point High School: 10 Keibel Road, Whitney Point. The High School is ADA compliant.
- Triangle Fire Station: 3621 State Route 206, Whitney Point, New York. The Fire Station is ADA compliant and can provide EMS medical services.

The Town has identified the following evacuation routes that they would suggest to residents:

• State Route 206, Route 11, Interstate 81, and Route 26

## 9.20.6 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 2013 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 9.20-11. Status of Previous Mitigation Actions** 

Project#	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluatio Succes (if project s is comple	s status	Ne	xt Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
1.	Continue and/or enhance programs to keep trees	Severe Storm		Town DPW	Ongoing Capability	Cost		1.	Discontinue
	from threatening lives,	Storm		DI W	Сараоппту	Level of Protection		2.	
	infrastructure during storm events.					Damages Avoided; Evidence of Success		3.	Ongoing capability
2.	Consider obtaining funding	Flood		Town	No Progress	Cost		1.	Included in the 2018 HMP
	to retrofit vulnerable critical facilities, including the DPW facility to include backup and redundant			DPW		Level of Protection		2.	Purchase and install a backup generator at the DPW facility and town hall.  Town Hall includes Town of Triangle, Village of
	power sources to maintain facility operations during hazard events for which they are exposed.								Whitney Point, and NYS Trooper offices, as well as the Broome County mobile DMV office. When there are power outages, the offices cannot function.
						Damages Avoided; Evidence of Success		3.	
3.	Assist in the update of	Flood		Town Code	Ongoing	Cost		1.	Discontinue
	flood plain (FIRM) maps – Jurisdictional Level.			Enforcement	Capability	Level of Protection		2.	
	Specific assistance can be provided in the area of attending map update					Damages Avoided; Evidence		3.	
	meetings held by FEMA, NYDEC and USGS; and identification of flood- prone areas outside of currently designated areas					of Success			Ongoing capability
4.	Continue participation in	Flood		Town	Ongoing	Cost		1.	Discontinue
	the National Flood Insurance Program (NFIP).			Floodplain Manager	Capability	Level of Protection		2.	
						Damages Avoided; Evidence of Success		3.	Ongoing capability
5.		Flood				Cost		1.	Discontinue



								No	ut Ctono
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluatio Succes (if project s is comple	s status		xt Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Enhance stream flow			Town	Ongoing	Level of		2.	-
	capacity utilizing feasible techniques that include, but			Floodplain	Capability	Protection		2	
	are not limited to, channel			Manager		Damages Avoided;		3.	Ongoing capability - Not a protected stream, Town
	shaping/resizing, rip rap,					Evidence			can go 200' feet above and below a pipe to protect
	grubbing, stream channel					of Success			the road. Town cleans out these areas the best they
	relocation.								can.
6.	Encourage review of local	All		Town Fire	Ongoing	Cost		1.	Discontinue
	site plans by firefighting companies to ensure fire-			Dept.	Capability	Level of Protection		2.	-
	fighting capacity exists at					Damages		3.	
	the local level to support					Avoided;		٥.	
	development (i.e. tall					Evidence			On soin a comphility
	buildings in a rural area					of Success			Ongoing capability
	w/o access to ladder								
7.	equipment). Encourage amendment of	Drought		Town Code	No Progress	Cost		1.	Discontinue – this is done on the county level
/.	local ordinances to ensure	Diougni		Enforcement	No 1 logicss	Level of		2.	Discontinue – this is done on the county level
	developments served by			Zillol <b>o cilio</b> li		Protection		ے.	-
	private wells have adequate					Damages		3.	
	well recharge area					Avoided;			_
						Evidence			
8.	Consider non-structural	Flood		Town	Ongoing	of Success Cost		1.	Discontinue
8.	flood hazard mitigation	F1000		Floodplain	Capability	Level of		2.	Discontinue
	alternatives for at risk			Manager	Сарабіні	Protection		۷.	-
	properties within the			Č		Damages		3.	
	floodplain, including those					Avoided;			
	that have been identified as					Evidence			
	repetitive loss properties, such as					of Success			
	acquisition/relocation, or								
	elevation depending on								0 1 177
	feasibility. The parameters								Ongoing capability
	for feasibility for this								
	initiative would be:								
	funding, benefits versus costs and willing								
	participation of property								
	owners.								
9	Conduct and facilitate	All		Municipality	No Progress	Cost		1.	Discontinue – not a concern at this time for the
	community and public	Hazards,		with support					town as they do not have flood vulnerable
	education and outreach for	Or		from Planning					properties in the community



								Ne	xt Steps
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluatio Succes (if project s is comple	s status	110	<ol> <li>Project to be included in 2018 HMP or Discontinue</li> <li>If including action in the 2018 HMP, revise/reword to be more specific (as appropriate).</li> <li>If discontinue, explain why.</li> </ol>
	residents and businesses to	Flood		Partners,		Level of		2.	
	include, but not be limited			BCPD,		Protection			
	to, the following to			NYSOEM, FEMA		Damages		3.	
	promote and effect natural hazard risk reduction:			FEMA		Avoided; Evidence			
	Provide and maintain links					of Success			
	to the HMP website, and					of Success			
	regularly post notices on								
	the County/municipal								
	homepage(s) referencing								
	the HMP webpages.								
	Prepare and distribute								
	informational letters to flood vulnerable property								
	owners and neighborhood								
	associations, explaining the availability of mitigation grant funding to mitigate their properties, and								
	instructing them on how								
	they can learn more and								
	implement mitigation.								
	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.								
	Work with neighborhood								
	associations, civic and								
	business groups to disseminate information on								
	flood insurance and the								
	availability of mitigation								
	grant funding.								
10	Obtain and archive	Flood,		NFIP	No Progress	Cost		1.	Discontinue – homes are not in the floodplain; not
	elevation certificates	Severe		Floodplain	S				applicable
		Storm		Administrator		Level of		2.	
						Protection			
						Damages		3.	
						Avoided;			



								NI.	ort Channe
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluatio Succes (if project s is comple	s status	Nex	<ol> <li>Project to be included in 2018 HMP or Discontinue</li> <li>If including action in the 2018 HMP, revise/reword to be more specific (as appropriate).</li> <li>If discontinue, explain why.</li> </ol>
						Evidence			
1.1		A 11 TY 1		3.6 12.	0 :	of Success			
11	Continue to support the implementation, monitoring, maintenance,	All Hazards		Municipality with support from Planning	Ongoing Capability	Cost Level of Protection		1. 2.	
	and updating of this Plan, as defined in Section 7.0			Partners, BCPD, NYSOEM, FEMA		Damages Avoided; Evidence of Success		3.	
12	Complete ongoing updates of Comprehensive	All Hazards		County Emergency	No Progress	Cost		1.	Discontinue – the town does not have a local CEMP
	Emergency Management Plans			Services		Level of Protection		2.	
						Damages Avoided; Evidence of Success		3.	
13	Create/Enhance/Maintain	All Hazards		Municipality	Ongoing	Cost		1.	Discontinue
13	Mutual Aid agreements with neighboring	All Hazarus		with support from County,	Capability – highway	Level of Protection		2.	-
	communities for continuity of operations			NYSOEM, FEMA and surrounding communities	departments and fire departments	Damages Avoided; Evidence of Success		3.	Ongoing Capability
14	Identify and develop	All Hazards		Municipality	Ongoing	Cost		1.	Discontinue
	agreements with entities that can provide support			with support from County,	Capability – highway	Level of Protection		2.	-
	with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record- keeping			NYSOEM and FEMA	superintendent	Damages Avoided; Evidence of Success		3.	Ongoing Capability
15	Work with regional	All Hazards		Municipality	Ongoing	Cost		1.	Discontinue
	agencies (i.e. County and State OEM) to help develop			with support from County,	Capability	Level of Protection	_	2.	-
	damage assessment capabilities at the local level through such things as			NYSOEM and FEMA		Damages Avoided;		3.	Ongoing capability



MAN MEM								Ne	xt Steps
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluatio Succes (if project s is comple	s status	110	<ol> <li>Project to be included in 2018 HMP or Discontinue</li> <li>If including action in the 2018 HMP, revise/reword to be more specific (as appropriate).</li> <li>If discontinue, explain why.</li> </ol>
	training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).					Evidence of Success			
16	Participate in local, county	All Hazards		Hazard	Ongoing	Cost		1.	Discontinue
	and/or state level projects			Mitigation	Capability –	Level of		2.	
	and programs to develop			Plan	assist with	Protection			-
	improved structure and			Coordinator	review critical	Damages		3.	
	facility inventories and				facilities during	Avoided;			
	hazard datasets to support				HMP update	Evidence			
	enhanced risk assessment efforts. Such programs					of Success			
	may include developing a								
	detailed inventory of								
	critical facilities based								
	upon FEMA's								
	Comprehensive Data								
	Management System								
	(CDMS) which could be								
	used for various planning								
	and emergency								
	management purposes including:								
	Support the performance of								
	enhanced risk and								Ongoing capability
	vulnerability assessments								
	for hazards of concern.								
	Support state, county and								
	local planning efforts								
	including mitigation								
	(including updates to the State HMP),								
	comprehensive emergency								
	management, debris								
	management, and land use.								
	Improved structural and								
	facility inventories could								
	incorporate flood, wind and								
	seismic-specific parameters								
	(e.g. first floor elevations,								
	roof types, structure types								
	based on FEMA-154								



Man action								Nov	xt Steps
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluatio Succes (if project s is comple	s status	Nez	<ol> <li>Project to be included in 2018 HMP or Discontinue</li> <li>If including action in the 2018 HMP, revise/reword to be more specific (as appropriate).</li> <li>If discontinue, explain why.</li> </ol>
	"Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.								
Severe Storm-1	Enhance the County/community	Severe Storm		Municipality with support	No Progress	Cost		1.	Discontinue – not a concern for the town at the time of this plan update
	resilience to severe storms			from County,		Level of		2.	
	(incl. severe winter storms) by joining the NOAA			NYSOEM and FEMA		Protection Damages		3.	
	"Storm Ready" program and supporting communities in joining the program. "StormReady" communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. Participation in the NOAA "StormReady" program shall include providing information on the "StormReady" program, facilitating public outreach and awareness programs, and supporting community storm risk reduction activities as appropriate. Specific actions addressed by "StormReady" participation include establishing a 24-hour Warning Point, increase number of ways EOC receives NWS					Avoided; Evidence of Success			



								D.T.	. 0.
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation Success (if project s is comple	s tatus	Ne	<ol> <li>Project to be included in 2018 HMP or Discontinue</li> <li>If including action in the 2018 HMP, revise/reword to be more specific (as appropriate).</li> <li>If discontinue, explain why.</li> </ol>
	warnings, increase number of ways to disseminate warnings, monitoring hydrometeorological data, providing annual weather safety talks, train weather spotters, create a formal hazardous weather plan, host annual visits by NWS to communities, etc.								
Earthquake- 1	Obtain training and conduct rapid screening assessment of critical facilities for earthquake vulnerability.	Earthquake		Municipal Emergency Management, Fire, PD with support from County, NYSOEM	No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. 2. 3.	Remove – not a concern at this time for the town
Earthquake- 2	Develop a post-earthquake management plan to address building safety inspections, gas leaks, and other elements to protect public safety.	Earthquake		Municipal Emergency Management, Fire, PD with support from County, NYSOEM	No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. 2. 3.	Remove – not a concern at this time for the town



## **Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy**

The Town of Triangle has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

• The Town of Triangle has performed ongoing maintenance projects to reduce the impact of flooding but has not identified specific mitigation projects/activities that have been completed but were not identified in the previous mitigation strategy in the 2013 Plan.

## **Proposed Hazard Mitigation Initiatives for the Plan Update**

The Town of Triangle participated in a mitigation action workshop on October 17, 2018 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 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

Table 9.20-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Triangle 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, 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 9.20-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



**Table 9.20-12. Proposed Hazard Mitigation Initiatives** 

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Triangle- 1	Update sluices in the Town	1, 5	Severe Storm, Flood	Problem: Undersized – not long and wide enough for the roads. This chokes the road down and do not have proper headwalls. They are old and need to be replaced.  Solution: Install larger sluice pipes along the following roadways: Hemmingway Road; Echo Lake Road; Wilson Hill Road; Rathbon Hill Road; and Travis Road. They will be installed under the roadway.	No	No	Within 5 years	Highway Dept.	\$15,000/pipe	Increase capacity; reduce risk of water on roadways	Municipal Budget	High	SIP	РР
T. Triangle- 2	Overflow pipes installed the town	1,5	Severe Storm, Flood	Problem: In the event of downed trees or roadway debris, the areas of Hemmingway Road; Echo Lake Road; Wilson Hill Road; Rathbon Hill Road; and Travis Road tend to become inundated because water from heavy rain events does not anywhere to go. This creates a problem for emergency personnel from accessing these areas in the town.  Solution: Install overflow pipes in the areas of Hemmingway Road; Echo Lake Road; Wilson Hill	No	No	Within 5 years	Highway Dept.	\$20,000/pipe	Increase capacity; reduce risk of water on roadways	Municipal Budget	High	SIP	РР



Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Road; Rathbon Hill Road; and Travis Road to reduce flooding in the event of downed trees or debris in the roadways. This will reduce or eliminate the chances of closed roadways, inundated roadways, and allow emergency personnel access to these areas of the town.										
T. Triangle-	Harvey Square Road and Beavers	1, 5	Flood	Problem: Harvey Square Road – huge wetland that DEC built; issues with beavers building dams which leads to flooding in this area.  Solution: Conduct a study of the areas impacted by beaver activity and identify solutions to alleviate the flooding issues associated with the beavers. Once study identifies the best solutions, the town will incorporate those solutions.	No	No	Within 2 years	Highway Department with support from NYSDEC	<\$20,000	Identify solutions to deal with beavers, reduce or eliminate flooding in this area of the town once solutions are implemented	Municipal Budget	Medium	LPR, NSP	PR, NR
T. Triangle- 4	Gayhead Road Improvements	1,5	Severe Storm, Flood	Problem: Gayhead Road (East Hill Rd) – seasonal road that is need of substantial work. A very steep road with major rock outcropping.  Solution: A study needs to be conducted to determine the types of projects need to	No	No	Within 5 years	Highway Department	\$50,000	Identify solutions to improve this area of the town, increase safety measures to protect roadway and residents	Municipal Budget, CHIPS, PAVE NY	Medium	LPR, SIP	PP



Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution improve the road. One	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				project would be widening the roadway and installing drainage improvements.										
T. Triangle- 5 (former 1)	Town Hall Backup Generator	1, 4, 5	All	Problem: Town Hall includes Town of Triangle, Village of Whitney Point, and NYS Trooper offices, as well as the Broome County mobile DMV office. When there are power outages, the offices cannot function properly or provide services to meet the needs of residents.  Solution: Purchase and install a propane-powered generator that will fully power the facility during power outages. This will allow for continuity of operations and allow all operations in the building function during a power outage.	Yes	None	Within 3 years	Town Board	\$100,000	Continuity of operations; provides services to residents during emergencies and power outages	НМGР	High	SIP	ES
T. Triangle- 6 (former 1)	Highway Department Backup Generator	1, 4, 5	All	Problem: The Town Highway Department facility is a critical facility in the town and needs to operate during hazard events and power outages. It currently does not have backup power and cannot fully operate during power outages.	Yes	None	Within 3 years	Town Board and Highway Department	\$100,000	Continuity of operations; provides services to residents during emergencies and power outages	НМСР	High	SIP	ES



Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Solution: Purchase and install a propane-powered generator that will fully power the facility during power outages. This will allow for continuity of operations and allow highway services to operate properly during a power outage.										

#### 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

FEMA Federal Emergency Management Agency

FPA Floodplain Administrator HMA Hazard Mitigation Assistance

N/A Not applicable

NFIP National Flood Insurance Program

OEM Office of Emergency Management

#### Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program HMGP Hazard Mitigation Grant Program PDM Pre-Disaster Mitigation Grant Program

#### Timeline:

The time required for completion of the project upon implementation

#### Cost:

The estimated cost for implementation.

#### Benefits:

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

#### Mitigation Category:

- Local Plans and Regulations (LPR) These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) These are actions that minimize damage and losses, and 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

#### Critical Facility:

• Yes ♦ - Critical Facility located in 1% floodplain



Table 9.20-13. 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	Total	High / Medium / Low
T. Triangle-1	Update sluices in the Town	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
T. Triangle-2	Overflow pipes installed the town	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
T. Triangle-3	Harvey Square Road and Beavers	1	1	1	1	0	0	0	1	0	1	1	1	0	0	8	Medium
T. Triangle-4	Gayhead Road Improvements	1	1	1	1	0	0	0	1	0	1	1	1	0	0	8	Medium
T. Triangle- 5 (former 1)	Town Hall Backup Generator	1	1	1	1	1	1	0	0	1	1	1	1	1	1	12	High
T. Triangle- 6 (former 1)	Highway Department Backup Generator	1	1	1	1	1	1	0	0	1	1	1	1	1	1	12	High

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



## 9.20.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

## 9.20.8 Staff and Local Stakeholder Involvement in Annex Development

The Town of Triangle 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 many town departments, including: town supervisor and highway department. The Town Supervisor and Highway Superintendent represented the community on the Broome County Hazard Mitigation Plan Planning Partnership 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.

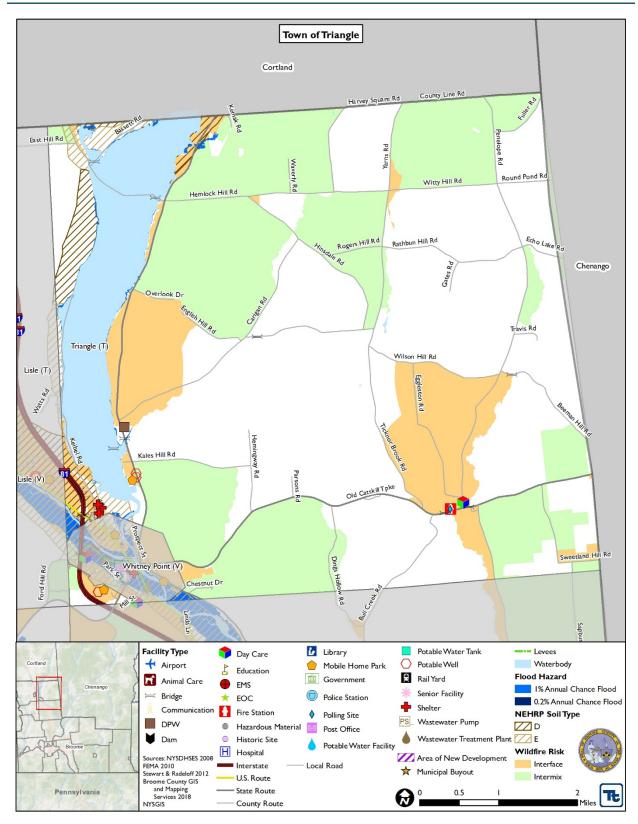
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

#### 9.20.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Triangle that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan and are 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 Town of Triangle has significant exposure. A map of the Town of Triangle hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain as well as identified critical facilities within the municipality.



Figure 9.20-1. Town of Triangle Hazard Area Extent and Location Map





BAN AD	A	ction W	orksheet	t						
Project Name:	Town Hall Generator									
Project Number:	T. Triangle-5									
Risk / Vulnerability										
Hazard(s) of Concern:	Multi-Hazard									
114241 4(0) 01 0011001111	The Town of Triangle's Town Hall does not have backup power, and should an emergency									
Description of the Problem:	occur, major government functions (municipal offices and town court system) cannot be executed or an effective emergency response may be hampered by the lack of available emergency power. The Town Hall also offices NYS Trooper substation, Village of Whitney Point offices, and the Broome County mobile DMV office.  Action or Project Intended for Implementation									
	Action or Projec	ct Intend	led for Ir	nplementation						
Description of the Solution:										
Is this project related to a	a Critical Facility?	Yes	$\boxtimes$	No 🗌						
Is this project related to located within the 100-	year floodplain?	Yes		No 🖾						
(If yes, this project must intend		lood ever	t or the ac	tual worse case damage	scenario, whichever is greater)					
Level of Protection:	N/A			ed Benefits avoided):	Continuity of operations; provide heating/cooling center for residents					
Useful Life:	20 years		Goals M		1, 4, 5					
Estimated Cost:	\$100,000			ion Action Type:	SIP					
		for Imp	lementa	tion I Timeframe for	1 27000					
Prioritization:	High			entation:	1 year					
Estimated Time Required for Project Implementation:	Within six months receiving fundin		Potenti Sources	al Funding s:	FEMA HMGP					
Responsible Organization:	Town of Triangl	le		lanning nisms to be Used ementation if any:	Hazard Mitigation, Emergency Management					
	Three Alternatives	Consid	ered (inc	luding No Action)						
	Action		Es	stimated Cost	Evaluation					
	No Action Install solar panels of	on the		\$0	Current problem continues  Not feasible; too costly and					
Alternatives:	town hall garag			\$100,000	maintenance					
	Purchase portable gen	nerators		\$5,000/each	They do not last as long and not enough capacity to power the entire facility					
Progress Report (for plan maintenance)										
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										



	Acti	on Worksheet					
Project Name:	Town Hall Generator						
Project Number:	T. Triangle-5						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Provide essential municipal services to the community during a power outage					
Property Protection	1	Allow the building to operate during power outages					
Cost-Effectiveness	1						
Technical	1						
Political	1	The town has jurisdiction of the building and can install the generator					
Legal	1						
Fiscal	0	Need to obtain grant funds to purchase and install generator					
Environmental	0	No negative or positive impacts on the environment					
Social	1						
Administrative	1	The town has the administrative capabilities to complete this project					
Multi-Hazard	1	All hazards					
Timeline	1	To be completed with 5 years					
Agency Champion	1						
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						



Figure 9.20-2. Site Location Map for Proposed Project



Source: Google Earth 2019



Figure 9.20-3. Street View of Town of Triangle Town Hall



Source: Google Earth 2019



	A	ction W	orksheet	i e						
Project Name:	Highway Garage Generator									
Project Number:	T. Triangle-6									
	Risk / Vulnerability									
Hazard(s) of Concern:				Multi-Hazard						
Description of the Problem:	should an emergency	The Town of Triangle's Highway Department Garage does not have backup power, and should an emergency occur, major government functions cannot be executed, or an effective emergency response may be hampered by the lack of available emergency power.								
Description of the Solution:	Action or Project Intended for Implementation  Purchase and install a propane-powered generator that will fully power the highway department facility during power outages. This will allow for continuity of operations at allow all operations to function during a power outage. The facility is located at NY-26 Whitney Point.									
Is this project related to a	Critical Facility?	Yes	$\boxtimes$	No 🗌						
Is this project related to located within the 100-		Yes		No 🖂	_					
(If yes, this project must intend	to protect the 500-year f	lood even	t or the ac	tual worse case damage						
Level of Protection:	N/A			ed Benefits avoided):	Continuity of operations; provides services to residents during emergencies and power outages					
Useful Life:	20 years		Goals M	let:	1, 4, 5					
Estimated Cost:	\$100,000		Mitigat	ion Action Type:	SIP					
	Plan	for Imp	lementa	tion						
Prioritization:	High			l Timeframe for entation:	1 year					
Estimated Time Required for Project Implementation:	Within six months receiving fundin		Potenti Sources	al Funding s:	FEMA HMGP					
Responsible Organization:	Town of Triangle Hig Department	ghway		lanning nisms to be Used ementation if any:	Hazard Mitigation, Emergency Management					
	Three Alternatives	Consid	ered (inc	luding No Action)						
	Action		Es	stimated Cost	Evaluation					
	No Action			\$0	Current problem continues					
Alternatives:	Install solar panels o highway departmo building			\$100,000	Not feasible; too costly and maintenance					
	Purchase portable gen	erators		\$5,000/each	They do not last as long and not enough capacity to power the entire facility					
	Progress Report (for plan maintenance)									
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										



Action Worksheet							
Project Name:	Highway Garage Generator						
Project Number:	T. Triangle-6						
Criteria	Numeric Rank Provide brief rationale for numeric rank wh (-1, 0, 1) appropriate						
Life Safety	1	Provide essential municipal services to the community during a power outage					
Property Protection	1	Allow the building to operate during power outages					
Cost-Effectiveness	1						
Technical	1						
Political	1	The town has jurisdiction of the building and can install the generator					
Legal	1						
Fiscal	0	Need to obtain grant funds to purchase and install generator					
Environmental	0	No negative or positive impacts on the environment					
Social	1						
Administrative	1	The town has the administrative capabilities to complete this project					
Multi-Hazard	1	All hazards					
Timeline	1	To be completed with 5 years					
Agency Champion	1						
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						



Figure 9.20-4. Site Location Map for Proposed Project



Source: Google Earth 2019