

### 10.2.10 Town of Goshen

This section presents the jurisdictional annex for the Town of Goshen. The Town does not have a hazard mitigation plan.

#### 10.2.10.1 Contacts

Primary and secondary contacts regarding this plan are identified as follows:

- Broderick Knoell – Highway Superintendent  
44 Police Highway  
Goshen, NY 10924  
(845) 294-6033
  
- Douglas Bloomfield – Supervisor  
41 Webster Ave, P.O. Box 217  
Goshen, NY 10924  
(845) 294-6996

#### 10.2.10.2 Municipal Profile

##### *Population*

According to the U.S. Census, the 2010 population for the Town of Goshen was thirteen thousand, six hundred eighty (13,680), with a population density of one thousand, six hundred thirty-seven (1,637) persons per square mile. The population has decreased by a six percent (6%) from the 2000 census twelve thousand, nine hundred thirteen (12,913).

##### *Location*

The Town of Goshen is located in central Orange County, approximately sixty-eight (68) miles north of New York City. The Town of Goshen is comprised of 42.56 square miles, including the Village of the same name. The Town is bordered by the Towns of Wallkill, Wawayanda, Warwick, Chester, Blooming Grove and Hamptonburgh, and the Wallkill River. The Town also contains two (2) major surface water bodies, the Prospect Lake and Green Hill Reservoirs, both of which are owned by and service the Village of Goshen. The Village of Florida is on the southern boundary of the Town of Goshen, with several parcels of land within the Town of Goshen having been annexed to the Village.

##### *Brief History*

The Town was settled in around 1714 and established in 1789. In 1830, part of Goshen was used to form the Town of Hamptonburgh, and in 1845, the rest was used to form the Town of Goshen.

In the mid-1700s the Town and Village was important in the development of harness racing. As early as the 1750s, residents used to race their horses along what is now Main Street in the

Village's downtown. In 1838, a circular track was built around a nearby circus ground; this track was the first incarnation of the Historic Track, where races are still held for one week each year, making it the oldest horse racing facility still in use in the United States. A couple of years later, the larger Good Time Park was built, which hosts the Hambletonian race.

#### *Governing Body*

The Town of Goshen is served by a Town Board which consists of a Supervisor, a Deputy Supervisor, and three (3) Councilpersons. Other elected officials include a Town Clerk, Highway Superintendent, and Tax Collector.

#### *Future Growth*

There is no information in regards to future growth for the Town.

### 10.2.10.3 Hazard Vulnerabilities and Ranking

Town of Goshen has a history of natural and non-natural hazard events see the table below for further detail.

#### *Risk Ranking*

The following hazards have been identified by the Town of Goshen. Vulnerability was assessed due to frequency and potential extent for damages.

Hazard Event	Vulnerability
Drought	Moderate
Earthquake	Low
Flood	High
Hurricane	Moderate
Ice Jam	Low
Ice Storm	Moderate
Landslide	Low
Severe Storm	High
Severe Thunderstorm	Moderate
Tornado	Low
Wildfire	Low
Winter Storm	High
Extreme Temperatures	Moderate

*Critical Facilities*

Transportation Network	Water Supply Systems (wells)	Government Services	Emergency Services	Educational / Shelter and Evacuation \ Facilities	Telecommunications
2	4	6	4	1	3

The Town of Goshen has five (5) critical facilities within the 500-year floodplain or the high hazard Landslide Rating<sup>1</sup> area. Below is a table that identifies the structures and hazard issues.

Critical Infrastructure	500-Yr Flood	Landslide Rating Area	Associated Mitigation Action
Goshen Reservoir #2 Dam	Y	N	TG-1
Stanley Kogut Dam	N	Y	N/A
Green Hills Reservoir	Y	N	TG-1
NY State Police Florida Satellite Office	N	Y	N/A
Goshen Town Park	N	Y	N/A

Note: NYS Police Florida Satellite Office is located in the Town of Goshen

As indicated in Section 2.8, participating municipalities did not wish to disclose the locations of public water systems facilities due to security concerns. However, they acknowledge the criticality of such facilities. While it is assumed that most municipal water systems facilities are not located within the floodplain, these jurisdictions will explore hardening/relocation opportunities for those that are located within the floodplain should such actions become necessary due to the incidence of flooding impacts.

By necessity, critical wastewater facilities are located within the 500-year floodplain due to discharge requirements and gravity-fed systems optimization. While relocation is neither desired nor feasible, participating municipalities will seek to harden these facilities where feasibly and fiscally possible.

Table 2.8a – Orange County NPDES Data lists all wastewater facilities in the County, including the Town of Goshen, with a NPDES (National Pollutant Discharge Elimination System) permit. In the case of New York State, NPDES permit listing match State Pollutant Discharge Elimination System (SPDES) permit listings.

<sup>1</sup> Areas with a landslide rating in of greater than 37 are considered hazardous. The data was derived from HAZUS software analysis.

## **Priority Hazard Events**

The following sections detail the priority hazard events identified by the jurisdiction. Additional information about each hazard including frequency, history, and severity within Orange County is included within Section 5.0 of the main body of the Hazard Mitigation Plan (Volume I).

The probability of climate-related hazard events is generally expected to increase in the future within the Town of Goshen. This anticipated increase results from the expected increase in weather volatility associated with climate change. Hudson River communities will also experience increased threat of flooding due to sea level rise. The Walkill River Watershed also contributes to increased flooding occurrences.

Past occurrences of hazard events are indicated in their respective profiles below. Some hazards may not have locally available documentation of past occurrence, but are nonetheless profiled in this annex to instill future mitigation planning consideration.

### *Flood*

Flooding in the Town is a result from snow melt, heavy rains or other weather conditions. By identifying areas that are prone to flooding, it is possible to restrict development to open space uses, including passive recreation and agricultural uses, which don't obstruct water flow and are tolerant of flooding. The Federal Emergency Management Agency (FEMA) has identified potential flood hazard areas in the Town of Goshen, which are shown on FEMA maps.

The following table summarizes the FEMA Presidential Disaster (DR) or Emergency (EM) Declarations for flood events in Orange County, which encompasses the Town of Goshen. Many of these federal disasters were the remnants of severe storms or tropical or extra tropical disturbances (hurricanes, tropical storms, Nor'easters) either passing over or located within proximity to the State. Further information about flooding events which impacted Orange County is provided in Section 5.0 of this plan.

Table 10.2.10d: Presidential Disaster Declarations for Flooding and Related Events in Orange County				
Type of Event	Date	Declaration Number	Cost of Losses (approximate)	Source(s)
Hurricane & Flood (Hurricane Connie and Diane)	August 1955	DR-45	Flooding throughout the Town and Village of Goshen that caused evacuations. Flooding caused damage to residential and commercial properties, road closures, and power outages.	FEMA, Orange County HMP
Severe Storms and Flood (Tropical Storm Doria)	August 1971	DR-311	This storm caused seven deaths and \$147.6 M in damage throughout its path (1971 USD, \$735 M 2006 USD). New York State experienced approximately \$7.4 M in total eligible damages. Orange County experienced approximately \$29 K in property and crop damages. Estimated damages for the Town and Village of Goshen are unknown.	FEMA, Orange County HMP
Coastal Storms and Flood	April 1984	DR-702	Flooding occurred across southeastern New York State, and a federal disaster designation was declared on April 17. Flooding caused road closures in the Town and Village of Goshen Planning Area. Orange County experienced approximately \$11.9M in total eligible damages.	FEMA, Orange County HMP
Severe Storm and Flooding	January 1996	DR-1095	Severe storms and flooding across the region from January 19-30th led to road damage across Orange County. Orange County was among many counties in New York State that became eligible for Individual and Public Assistance under Federal Disaster Declaration DR-1095. Storm-induced damages to County roads at 32 locations resulted in approximately \$330,000 in damages. Estimated storm damages to Town and Village of Goshen are unknown.	FEMA, NOAA-NCDC, Orange County HMP

Type of Event	Date	Declaration Number	Cost of Losses (approximate)	Source(s)
Severe Storms and Flooding	August-September 2004	DR-1564	The remnants of a tropical system combined with thunderstorms moved over Western Orange County, where hourly rainfall estimates in the three to five inches was observed at times. Houses were damaged, roads were destroyed, and buildings collapsed throughout Western Orange County.  A federal disaster declaration was made on October 1. Damage estimates were \$2.2 M in public and \$1.8 M in private property. As of April 2013, \$2.8 M in FEMA Individual Assistance and \$14 M in Public Assistance Grants were approved and obligated throughout New York State. Estimated storm damages to Town and Village of Goshen are unknown.	FEMA, Orange County HMP
Remnants of Hurricane Ivan and Flooding	September 2004	DR-1565	Remnants of Hurricane Ivan dropped up to 5" of rainfall in some areas of Orange County. This amount of rainfall caused flash flooding of roadways and highways across the region. The total damages within New York State were approximately \$15.10 M. Specific damages totals for the Town and Village of Goshen are unknown.	NOAA-NCDC, Orange County HMP
Remnants of Tropical Storm Lee and Flooding	September 2011	DR-4031	The remnants of Tropical Storm Lee impacted the county two weeks after Hurricane Irene made landfall. Combined damages for Hurricane Irene and Tropical Storm Lee exceeded \$ 55 million for Orange County. Specific damages for the Town and Village of Goshen were not available for this storm event.	NOAA-NCDC, FEMA,
Remnants of Hurricane Sandy and Flooding	October 2012	DR-4085	Much of the worst impacts during this storm were felt along the eastern portion of the County, and downstate. In Town and Village of Goshen, there were widespread power outages and downed trees. The water and wastewater plants were inaccessible due to road closures.	NOAA-NCDC, FEMA, Planning Area Input

Municipality	Total Land Area (Acres)	High Flood Risk (Acres)	Moderate Flood Risk (Acres)	Low Flood Risk (Acres)	Land in High Flood Risk %	Land in Moderate Flood Risk %
		A, AE, AH, AO	X500	X	A, AE, AH, AO	X500
Town of Goshen	25,990	7,144	642	18,204	27%	2%

Table 10.2.10e, above, indicates that approximately twenty-seven (27) percent of the land in the Town is within high flood risk areas (Zones A, AE, AH, AO) and approximately two (2) percent of the land in the Town is mapped as moderate flood risk areas (X500). (FEMA Flooding Mapping, 2016)

Below is a table that illustrates the value of property in the Town of Goshen that is located within the 500-year floodplain and is categorized by land use type. This table was derived from FEMA floodplain mapping and parcel data from the Orange County Property Assessor.

Type of Structure	# Structures in Hazard Area	Value of Structures (in millions)
Residential	46	\$6.7
Commercial	3	\$1.5
Industrial	0	\$0
Agricultural	249	\$5.6
Religious/Non-profit	0	\$0.0
Government	1	\$4.8
Education	0	\$0
Utilities	0	\$0
Dams	1	Unknown
Parks	0	\$0
Total	300	\$18.6

### *Extreme Temperatures*

For a description of this hazard, please see section 5.1.

#### Historical Occurrence:

In the past ten (10) years there is no record of extreme temperatures that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

### *Severe Storm*

For a description of this hazard, please see section 5.2.

#### Historical Occurrence:

In the past ten (10) years there is no record of any Severe Storms that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

### *Hurricane & Tornado*

For descriptions for each of these hazards, please see section 5.3 and section 5.2, respectively.

Historical Occurrence:

In the past ten (10) years there is no record of any hurricanes that have explicitly impacted the Town of Goshen. However, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document. It is of note that hurricane threats could potential increase due to climate change trends.

On Friday, July 29, 2011, an EF-1 tornado occurred in the Town of Goshen, causing a 2.1-mile stretch of destruction and damaging several homes and knocking down trees.

*Drought*

For a description of this hazard, please see section 5.5.

Historical Occurrence:

In the past ten (10) years there is no record of any Droughts that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

*Earthquake*

For a description of this hazard, please see section 5.7.

Historical Occurrence:

In the past ten (10) years there is no record of any Earthquakes that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

*Landslide*

Landslides occur when a slope fails and moves downward due to gravity. This can be caused by anything that disrupts ground stability, from storms to acts of man. The New York State Geological Survey denotes areas with steep slopes and glacial lake clay soils as landslide vulnerable. There are areas within the Town of Goshen that meet these criteria. The Town has areas with steep slopes and ridgelines, these step terrain areas are generally wooded, increasing the probability for a potential landslide in the future. Analysis of critical facilities that fall into these high landslide rating areas can be found in Table 10.2.10c and in Attachment I.

Below is a table that illustrates the value of property in the Town of Goshen that is located within the landslide rating area and is categorized by land use type. This table was derived from GIS mapping and parcel data from the Orange County Property Assessor.

Type of Structure	# Structures in Hazard Area	Value of Structures (in millions)
Residential	365	\$52.9
Commercial	35	\$16.9
Industrial	2	\$1.1
Agricultural	68	\$1.5
Religious/Non-profit	0	\$0
Government	1	\$14.4
Education	0	\$0
Utilities	0	\$0
Dams	1	Unknown
Parks	1	Unknown
Total	473	\$86.8

### *Ice Storm*

For a description of this hazard, please see section 5.8.

#### Historical Occurrence:

In the past ten (10) years there is no record of any Ice Storms that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

### *Winter Storm*

For a description of this hazard, please see section 5.8.

#### Historical Occurrences:

In the past ten (10) years there is no record of any Winter Storms that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

### *Wildfire*

For a description of this hazard, please see section 5.9.



**Historical Occurrences:**

In the past ten (10) years there is no record of any Wildfires that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

*Ice Jam*

For a description of this hazard, please see section 5.10.

**Historical Occurrences:**

In the past ten (10) years there is no record of any Ice Jams that have explicitly impacted the Town of Goshen, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

**10.2.10.4 Capability Assessment***Planning and Regulatory Capability*

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

Table 10.2.10h: Planning and Regulatory Tools				
Tool/Program (Code, Ordinance, Plan)	Status Do you have this? (Y/N)	Authority (Local, County, State, Federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y	County, State, Federal	Planning and Building	NYS Building codes 2010 Edition
Zoning Ordinance	Y	Local	Planning and Building	It is adequately administrated and enforced. See chapter 97
Subdivision Ordinance	Y	Local	Town Planning Board	It is adequately administrated and enforced. See chapter 83
NFIP Flood Damage Protection Ordinance	Y	Federal, State, Local	Town Planning Board	
NFIP - Cumulative Substantial Damages	Y	Federal, Local	Town Building Inspector	
Special Purpose Ordinances (e.g., wetlands, critical or sensitive areas)	Y	Federal, State, Local	Town Planning Board	
Growth Management	Y	Local	Town Board	
Floodplain Management/Basin Plan	Y	Local	Town Building Inspector	

Table 10.2.10h: Planning and Regulatory Tools				
Tool/Program (Code, Ordinance, Plan)	Status Do you have this? (Y/N)	Authority (Local, County, State, Federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Stormwater Management Plan/Ordinance	Y	Local	Town Building Inspector	
Comprehensive Plan/Master Plan	Y	Local	Town Planning Board, Town Board	Updated February 23, 2009
Capital Improvements Plan	Y	Local	Town Board	Yearly; roads, water, sewer
Site Plan Review Requirements	Y	Local	Town Planning Board, Town Building Inspector	Per application received
Economic Development Plan	Y	Local	Town Board	2012
Emergency Response Plan	Y	Local	Town/Village Emergency Management Committee	Yearly
Post Disaster Recovery Plan	Y	Local	Town/Village Emergency Management Committee	Yearly
Post Disaster Recovery Ordinance	N			

*Administrative and Technical*

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

Table 10.2.10i: Administrative and Technical Capabilities		
Available Staff/ Personnel Resources	(Y or N)	Department/Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Planning Board/Building & Zoning
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Town Building Inspector, Town Planning Board Consulting Engineer, Town Consulting Engineer
Planners or engineers with an understanding of natural hazards	Y	Highway Department
NFIP Floodplain Administrator	Y	Town Building Inspector
Surveyor(s)	Y	Contracted as needed

Table 10.2.10i: Administrative and Technical Capabilities		
Available Staff/ Personnel Resources	(Y or N)	Department/Agency/Position
Personnel skilled or trained in "GIS" applications	Y	Town Consultant Engineer
Scientist familiar with natural hazards in the County.	Y	Contracted as needed
Emergency Manager	Y	Town Hwy Superintendent
Grant Writer(s)	Y	Contracted as needed
Staff with expertise or training in benefit/cost analysis	Y	Town Consultant Engineer
Professionals trained in conducting damage assessments	Y	Town Hwy Superintendent, Town Consultant Engineer

*Fiscal*

Table 10.2.10j: Fiscal Opportunities For The Town of Goshen		
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)	Comments
Community Development Block Grants	Y	Used for Storm Mitigation Improvements
Capital Improvements Project funding	Y	Sidewalk, utility systems, roads, municipal infrastructure and buildings
Authority to levy taxes for specific purposes	Y	Water and Sewer
Fees for water, sewer, gas, or electric service	Y	Operations and Capital improvement projects
Impact fees for homebuyers or new developments/homes	Y	Parkland fees
Incur debt through general obligation bonds	Y	Various projects
Federal/State Funding	Y	-Various projects

*NFIP*

According to FEMA Flood Mapping, the Town of Goshen has nine hundred ninety-six (996) parcels located in 100 and 500-year floodplains. These include entire and or partial parcels. The Town has thirty-six (36) current NFIP policies; the insurance In-Force (whole \$) is \$8,177,100. The written premium In-Force for the Town is 48,956. The Town does not clarify who serves as the Floodplain Administrator. The Town has been maintaining NFIP participation by performing the duties and actions that were listed in the local laws that their municipal boards adopted (Local Law #3 of 2009). The Town Floodplain Administrator has been provided an NFIP best practices guidance package and will be using it to improve local participation in NFIP standards going forward. This package of documents was provided by NYSDHSES and can be found in Appendix F - NFIP Floodplain Administrator Guidance Package.

Jurisdiction	# Policies	# Claims (Losses)	Total Loss Payments	Closed Losses	Open Losses	CWOP Losses
Town of Goshen	36	55	\$552,803.23	39	0	16

Source: FEMA Policy Statistics NY

According to Table 8.2c, the Town of Goshen has four (4) residential properties that qualify as repetitive loss properties, none of which qualify as severe repetitive loss properties.

### *Hazard Mitigation: Existing and Planning Mechanisms*

#### Emergency Communications, Routes, and Shelters:

Orange County utilizes the CodeRED system for emergency notifications. The Town follows emergency route rules set by Orange County. The Town has one (1) emergency shelter location: Charles J. Hooker Middle School (41 Lincoln Ave, Goshen, NY 10924). More information on these sites can be found in Attachment III.

#### Comprehensive Plan:

The Town's Comprehensive Plan was adopted in 2004 and updated in January 2009. In the New York State Town Law, Section 272 states the "Town Board shall provide, as a component of such Comprehensive Plan, the maximum intervals at which the adopted plan shall be reviewed." While the adopted Plan did not specify a timeframe for review, the generally accepted standard is every five (5) to ten (10) years. The plan discusses existing conditions, comprehensive plans vision and goals, implementations, as well as potential zoning map changes. There is no discussion of mitigation or planning strategies in regards to hazards the Town faces.

#### Planning Mechanisms:

While this annex has provided a summary and description of existing plans, policies, and regulatory mechanisms that support hazard mitigation, the 2018 Orange County Hazard Mitigation Plan Update is intended to allow for the integration of its recommendations and data into local plans. Listed below are several planning and policy mechanisms that lend themselves to the integration of materials and objectives from this hazard mitigation plan. Columns to the right indicate whether the municipality has utilized hazard mitigation planning elements in the past (as in the aftermath of a previous local hazard mitigation plan) and whether they intend to be utilized in the future (which most, if not all, do).

Table 10.2.10I: Incorporation of Hazard Mitigation Planning into Existing and Future Planning Mechanisms		
Planning Mechanism	Has been Utilized	May be Utilized
Capital Improvement Budget: Hazard Mitigation Actions to be considered during the development of annual capital improvement plans. Compliance with Hazard Mitigation goals and objectives as well as the hazard vulnerability of site will be a consideration during the evaluation of infrastructure and facilities projects.		X
Operating Budget: Hazard Mitigation Actions to be considered within day-to-day operating budgets as funding permits.		X
Building & Zoning Ordinances: Review of the hazard mitigation plan and hazard analyses are part of the evaluation of land use, zoning, and development review ordinances and permitted processes.		X
Comprehensive Land Use Plan: Elements such as hazard vulnerability and hazard area extents will be considered during the development of future land use maps and other elements of comprehensive planning.		X
Human Resource Manual: Employee job descriptions may contain elements related to hazard mitigation planning and associated recommendations.		X
Grant Applications: Support for funding requests in the form of data, maps, and priority recommendations will be drawn from the hazard mitigation plan.		X
Fire Plan: Fire Plans for the municipality and local fire departments can utilize data and mapping in the hazard mitigation plan.		X
Local School Service Projects: Municipal officials and staff can explore the possibility of collaboration with local school districts to provide avenues for student community service projects as well as educational opportunities.		X
Economic Development: Local chambers of commerce and other economic development agencies can utilize the hazard mitigation plan to better inform new/expanding businesses in finding a location.		X

**10.2.10.5 Mitigation Strategy and Prioritization**

*Past, Completed, and Ongoing Initiatives*

The Town has no information in regards to past, completed and ongoing initiatives.

*Proposed Initiatives*

Table 10.2.10m: Mitigation Actions/Projects Identified				
Action	Description	Hazard Mitigated	Involved Agency(ies)	Funding Source(s)
TG-1	Flooding Mitigation	Flood	Town Flood Plain Administrator	Town Funds
TG-2	Review of current Zoning Codes	Flood	Town Planning Board	FEMA Hazard Mitigation Grant (HMGP), Town Funds
TG-3	Study & inventory of condition of trees in and adjacent to the right of way along town roads	Severe Storm	Town Highway Department	FEMA Hazard Mitigation Grant (HMGP), Town Funds
TG-4	Removal of dead and dying trees along town roads	Severe Storm	Town Highway Department	FEMA Hazard Mitigation Grant (HMGP)
TG-5	Arcadia Hills Well House Flood Proofing	Flood	Town Water and Sewer Department	FEMA Hazard Mitigation Grant (HMGP)
TG-6	Cedar Swamp Culvert Replacement	Flood	Town Highway Department	FEMA Hazard Mitigation Grant (HMGP)
TG-7	Acquisition of repetitive loss and severe repetitive loss properties within municipal limits	Flood	Town Board (primary), Town Engineer, Town Building Inspector, FEMA, NYS DHSES	FEMA Hazard Mitigation Grant (HMGP), FEMA Pre-Disaster Mitigation Funds (PDM), GOSR, Legislative Members' Initiatives

STAPLEE forms were completed for each of these actions. A table with these evaluations can be found in Attachment II of this jurisdictional annex.

“STAPLEE” refers to the following lenses of evaluation: social, technological, administrative, political, legal, economic, and environmental.

#### *Future Needs*

The Town has not provided any information in regards to future needs.

#### 10.2.10.6 Hazard Area Extent and Location

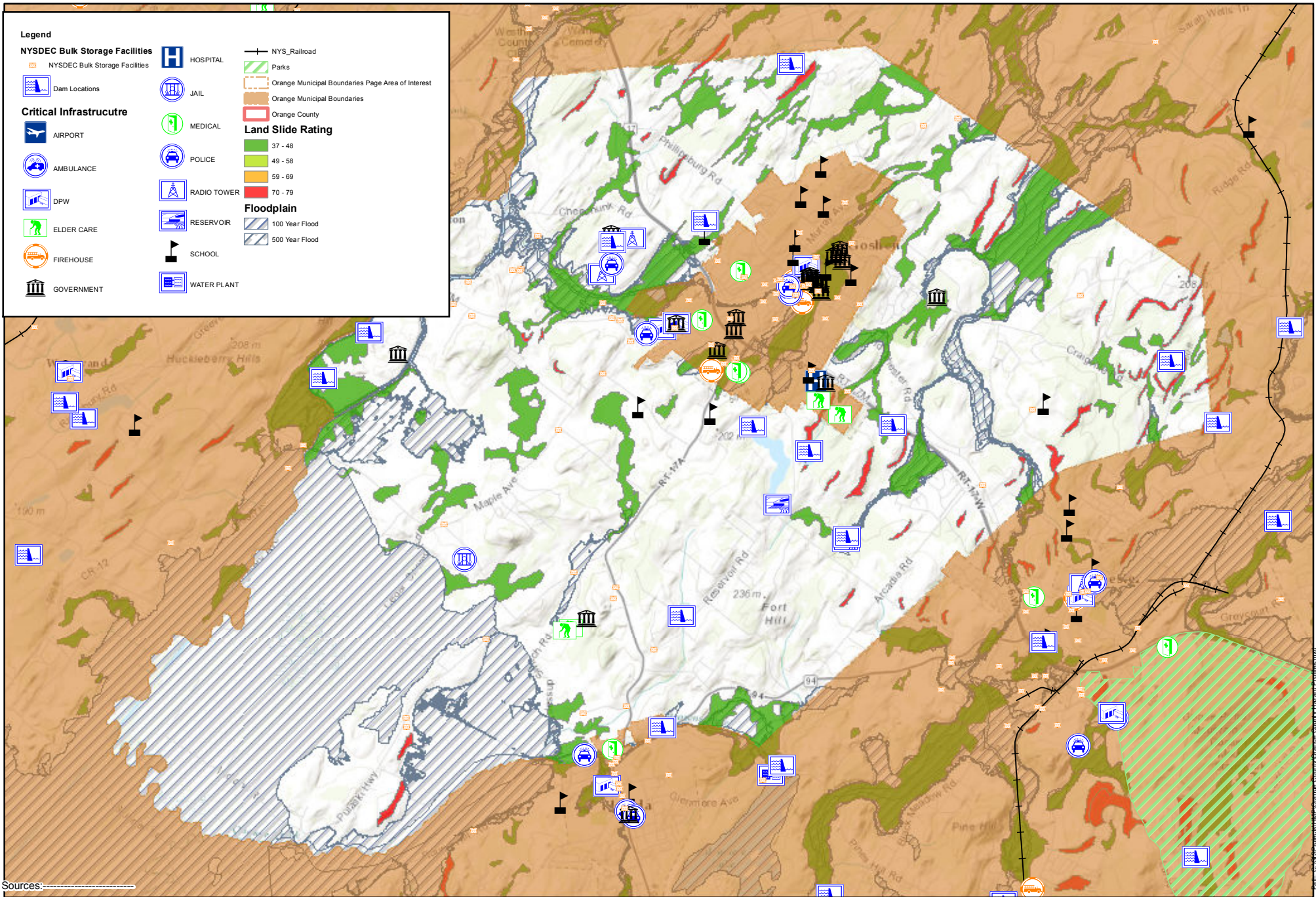
A map demonstrating the location of certain hazard areas is attached as Attachment I.

**Attachment I**

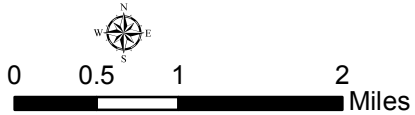
**Hazard Area Extent and Location Map -  
Town of Goshen**

**Legend**

NYSDEC Bulk Storage Facilities	HOSPITAL	NYS_Railroad
Dam Locations	JAIL	Parks
<b>Critical Infrastructure</b>	MEDICAL	Orange Municipal Boundaries Page Area of Interest
AIRPORT	POLICE	Orange County
AMBULANCE	RADIO TOWER	<b>Land Slide Rating</b>
DPW	RESERVOIR	37 - 48
ELDER CARE	SCHOOL	49 - 58
FIREHOUSE	WATER PLANT	59 - 69
GOVERNMENT		70 - 79
		<b>Floodplain</b>
		100 Year Flood
		500 Year Flood



Sources: \_\_\_\_\_



Path: C:\Users\jgarcia\Documents\Orange County Hazard Mitigation Plan\Figure 1724.002.mxd



## **Attachment II**

# **STAPLEE Mitigation Action Cost/Benefit Analysis - Town of Goshen**

**STAPLEE Criteria Consideration Tables**  
**Mitigation Action Prioritization and Comparison**

Jurisdiction: Town of Goshen

Action ID	Action	S	T	A	P	L	E	E	Can action be easily implemented?	Does action achieve multiple plan objectives?	Can action be quickly implemented?	Level of action benefits	Level of action overall costs	Priority ranking
		+ = benefit (favorable), - = cost (unfavorable), 0 = neutral or N/A											Levels = high, medium, or low	
TG-1	Flooding Mitigation: remove ledge rock in an area of the Walkkill River to potentially ease recurrent flooding.	+	+	+	+	+	+	0	+	0	+	Medium	Low (\$5,000)	High
TG-2	Review of current Zoning Codes: Review, and Modify as necessary, current parameters for the sizing of storm sewer systems and culverts.	+	+	0	+	+	0	+	+	+	0	High	Low (\$25,000)	High
TG-3	Study & inventory of condition of trees in and adjacent to the right of way along town roads	+	+	0	+	0	0	+	+	+	0	Medium	Low (\$15,000 - \$20,000)	Medium
TG-4	Removal of dead and dying trees along town roads	0	+	0	+	+	-	-	0	0	0	Medium	Medium (\$100,000 - \$150,000)	Medium
TG-5	Arcadia Hills Well House Flood Proofing: Mitigation of well house and equipment to a higher elevation	+	+	-	+	+	-	+	-	+	-	High	High (\$250,000)	High
TG-6	Cedar Swamp Culvert Replacement: Replace (2) existing parallel 6' Culverts with a single aluminum arched culvert	+	+	-	+	+	-	+	-	+	-	Medium	Medium (\$165,000)	Medium

**Attachment III**

**Hazard Mitigation Action Worksheets -  
Town of Goshen**

## Mitigation Actions and Strategy Detail Worksheet

<b>Action Worksheet</b>	
Name of Jurisdiction	Town of Goshen, NY / Orange County
Name of Hazard Mitigation Plan	Orange County Multi-Jurisdictional Hazard Mitigation Plan.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
Action/Project Number	TGO-1
Name of Action/Project	The County of Orange in conjunction with the OC Soil and Water is planning on a project that would remove ledge rock in an area of the Walkkill River to potentially ease recurrent flooding.
Summary of Evaluation: Benefits (losses avoided), estimated costs, and other factors considered	Goshen is reviewing this plan to possibly issue a permit that would allow this work to proceed. There are concerns about what impact this work may have on Celery Avenue, which runs adjacent to the Walkkill River. Estimated Cost \$5,000
<b>Plan for Implementation</b>	
Responsible Organization	Town Flood Plain Administrator
Action/Project Priority	Tier1 – Top Priority
Potential Funding Sources	Town Funds
Other assisting organizations, entities, etc.	Walkkill River Drainage District Town Engineer
Local planning mechanisms to be used in project/action implementation, if any	
<b>Progress Report</b>	
Date of status report	No Report at this time.
Report of progress	
Evaluation of effectiveness	

## Mitigation Actions and Strategy Detail Worksheet

<b>Action Worksheet</b>	
Name of Jurisdiction	Town of Goshen, NY / Orange County
Name of Hazard Mitigation Plan	Orange County Multi-Jurisdictional Hazard Mitigation Plan.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
Action/Project Number	TGO-2
Name of Action/Project	Review of current Zoning Codes
Summary of Evaluation: Benefits (losses avoided), estimated costs, and other factors considered	Review, and Modify as necessary, current parameters for the sizing of storm sewer systems and culverts. Currently, planning calculation are done based on a 25 year flood. Considerations will be made to possibly increase these standards. Cost estimated at \$25,000.
<b>Plan for Implementation</b>	
Responsible Organization	Town of Goshen Planning Board
Action/Project Priority	Tier 1 – Top Priority
Potential Funding Sources	FEMA Hazard Mitigation Grant Program (HMGP) Town Funds
Other assisting organizations, entities, etc.	Town of Goshen Town Board / Building Inspector
Local planning mechanisms to be used in project/action implementation, if any	Change in Zoning Code
<b>Progress Report</b>	
Date of status report	No Report at this time.
Report of progress	
Evaluation of effectiveness	

Orange County  
Multi-Jurisdictional All Natural Hazard Mitigation Plan  
Emergency Shelter Questionnaire

Current Emergency Shelter	
Name of Your Municipality:	<u>Town of Goshen</u>
Common Name of Your Emergency Shelter:	<u>Charles J. Hooker Middle School</u>
Street Address of Your Emergency Shelter:	<u>41 Lincoln Ave, Goshen, NY 10924</u>
Name of the Owner of Your Emergency Shelter:	<u>Town of Goshen</u>
Name of the Regular Occupant of Your Emergency Shelter:	<u>Charles J. Hooker Middle School</u>

Name of Jurisdiction: \_\_\_\_\_

**RESOLUTION  
TO AUTHORIZE THE ACCEPTANCE AND ADOPTION OF THE  
MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE FOR  
ORANGE COUNTY, NEW YORK**

**WHEREAS**, the Orange County Department of Emergency Services, with the assistance from Barton & Loguidice, D.P.C., has gathered information and prepared the Multi-Jurisdictional Hazard Mitigation Plan Update for Orange County, New York; and

**WHEREAS**, the Multi-Jurisdictional Hazard Mitigation Plan Update for Orange County, New York has been prepared in accordance with the Disaster Mitigation Act of 2000 and Title 44 Code of Federal Regulations (CFR), Part 201; and

**WHEREAS**, Title 44 CFR, Chapter 1, Part 201.6(c)(5) requires each local government participating in the preparation of a Multi-Jurisdictional Mitigation Plan or Plan Update to accept and adopt such plan; and

**WHEREAS**, the Town of Goshen, has reviewed the 2016 Multi-Jurisdictional Hazard Mitigation Plan Update for Orange County, has found the document to be acceptable, and as a local unit of government, has afforded its citizens an opportunity to comment and provide input regarding the Plan Update and the actions included in the Plan;

**WHEREAS**, the Town of Goshen, will consider the Multi-Jurisdictional Hazard Mitigation Plan Update for Orange County during the implementation and updating of local planning mechanisms, and will incorporate the hazard assessment data, hazard vulnerabilities, and mitigation actions in these mechanisms, where applicable;

**NOW THEREFORE, BE IT RESOLVED**, that the Town of Goshen, as a participating jurisdiction, adopts the Multi-Jurisdictional Hazard Mitigation Plan Update for Orange County, New York, dated May 2016.

This resolution was thereupon declared duly adopted on \_\_\_\_\_.

\_\_\_\_\_  
(Supervisor)

\_\_\_\_\_  
(Clerk)