

### 10.2.30 Village of South Blooming Grove

This section presents the jurisdictional annex for the Village of South Blooming Grove.

#### 10.2.30.1 Contacts

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

- James LoFranco – Mayor  
811 Route 208, P.O. Box 295  
Blooming Grove, NY 10914  
(845) 782-2606
- James Mullany – Trustee  
(845) 782-2606

#### 10.2.30.2 Municipal Profile

##### *Population*

The population of the Village of South Blooming Grove was reported to be three thousand, two hundred thirty-four (3,234) by the 2010 U.S. Census. The Village's website indicates that the population in 2004 was two thousand, seven hundred sixty-three (2,763). This represents a 14.5% increase in the Village's population over that time.

##### *Location*

The Village of South Blooming Grove is located in the central portion of Orange County. The Village is located within the Town of Blooming Grove. Bordering communities include the Town of Monroe to the south and the Town/Village of Woodbury to the east. The Village of Kiryas Joel is located nearby.

##### *Brief History*

The Village has a relatively short history since it was incorporated on July 14, 2006. Prior to 2006 the Village of South Blooming Grove was a part of the Town of Blooming Grove.

##### *Governing Body*

The Village's governing body consists of an elected Mayor and four (4) elected trustees.

##### *Future Growth*

The Village did not identify any major residential or commercial development, or major infrastructure development planned for the next five (5) years.

### 10.2.30.3 Hazard Vulnerabilities and Ranking

The Village of South Blooming Grove identified nine (9) natural hazards which impact the municipality:

- Severe Storm
- Floods
- Severe Winter Storm
- Drought
- Earthquake
- Extreme Temperature
- Wildfire
- Ice Jam
- Dam Failure

#### Risk Ranking

Table 10.2.30a: Natural Hazard Risk/Vulnerability Risk Ranking					
Hazard Type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard		Probability of Occurrence	Risk Ranking Score (Probability of Impact)	Hazard Ranking
Flood			Frequent	18	Medium
Ice Jam	1% Annual Chance:	\$27,663,000	Occasional	N/A	Low
Dam Failure	0.2% Annual Chance:	\$33,540,000			
Severe Storm	100-Year MRP:	\$306,255	Frequent	18	Medium
	500-Year MRP:	\$1,923,304			
	Annualized Loss:	\$19,362			
Severe Winter Storm			Frequent	39	High
Earthquake	1% of GBS <sup>1</sup> :	\$2,847,530	Rare	6	Low
Drought			Occasional	12	Medium
Extreme Temperature	5% of GBS:	\$14,237,650	\$14,237,650	12	Medium
Wildfire			Occasional	16	Medium

#### Critical Facilities

The Village of South Blooming Grove has three (3) critical facilities within the 500-year floodplain or the high hazard Landslide Rating<sup>2</sup> area. Below is a table that identifies the structures and hazard issues.

<sup>1</sup> GBS = General Building Stock

<sup>2</sup> Areas with a landslide rating in of greater than 37 are considered hazardous. The data was derived from HAZUS software analysis.

<b>10.2.30b: Village of South Blooming Grove Critical Facilities and Infrastructure in Hazard Areas</b>			
<b>Critical Infrastructure</b>	<b>500-Yr Flood</b>	<b>Landslide Rating Area</b>	<b>Associated Mitigation Action</b>
Merriewold Lake Dam	Y	N	N/A
Peddler Hill Road Dam	Y	N	N/A
William Cranford Pond Dam	Y	N	N/A

The 2013 local hazard mitigation plan had listed two (2) critical facilities: South Blooming Grove Sewer District #1 WWTP and the South Blooming Grove Potable Water Plant. However, the Village currently does not own or operate potable water or wastewater treatment plants. The Village utilizes County facilities for these services.

Table 2.8a – Orange County NPDES Data lists all wastewater facilities in the County, including the Village of South Blooming Grove, 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.

### **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 Village of South Blooming Grove is located within the Town of Blooming Grove.

The probability of climate-related hazard events is generally expected to increase in the future within the Village of South Blooming Grove. This anticipated increase results from the expected increase in weather volatility associated with climate change. The Village's located in the Moodna Creek Watershed also contributes to increased flooding occurrences. Satterly Creek and dam failure at Orange-Rockland Lake (Willow Brook Dam), in particular, pose increased flood risk in the future.

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*

Floods are natural events for rivers, lakes and streams where excess water from snowmelt, rainfall, or storm surges accumulates and overflows onto the banks and adjacent floodplains of these waterbodies. The Village of South Blooming Grove is located within the Moodna Creek Watershed. Certain areas of this watershed have experienced major damages due to flooding. The Town of Blooming Grove boundaries encompass the Village of South Blooming Grove. Much of the damage estimates provided identify natural hazard related damages that occurred in the Town of Blooming Grove. It is estimated that in the Village of South Blooming Grove, one hundred and nine (109) residents live in and an estimated forty-six (46) (4.8%) parcels are located within the 1% annual chance flood area (NFIP Special Flood Hazard Area).

Below is a table that illustrates the value of property in the Village of South Blooming Grove 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	103	\$36.1
Commercial	1	Unknown
Industrial	0	\$0
Agricultural	2	Unknown
Religious/Non-profit	0	\$0
Government	0	\$0
Education	0	\$0
Utilities	0	\$0
Dams	3	Unknown
Parks	0	\$0
<b>Total</b>	109	\$36.1

#### Historical Occurrence:

The Town of Blooming Grove indicated several locations within the Moodna Creek Watershed which are most susceptible to flooding. This information relates to a significant rainfall event which occurred on April 15, 2007. Vulnerable locations which were identified within the vicinity of the Town of Blooming Grove and the Village of South Blooming Grove include:

- Cromline Creek (Town of Blooming Grove) – closed at least half of Cherry Hill Road and a portion of Tuthill Road.
- Satterly Creek (Town of Blooming Grove and Village of South Blooming Grove) – Closed a portion of Peddler Hill Road and all of Stone Gate Drive (Village of South Blooming Grove) and Barnes Road (Town of Blooming Grove). An unnamed Tributary of Satterly Creek closed much of Prospect Road (Village of South Blooming Grove).
- Perry Creek (Town of Blooming Grove) – Closed an extensive portion of Mountain Lodge Road and all of Perry Creek Road.
- Unnamed Tributary of Youngs Brook (Town of Blooming Grove) - flooded a significant portion of Quaker Hill Road.
- Bridge crossing of Cromline Creek at Cherry Hill Road was closed for two (2) days as a result of flooding from 2007 event.

- State Route 94 and the bridge crossing the Tributary of Moodna Creek were inundated with flood water for one (1) day.
- Other roads which were reported closed were: Bisch Road, Main Street, Taylor Road, Otterkill Road, West Main Street, Patricia Lane, Beverly Lane, Peacock Circle, Cardinal Drive, Goodridge Road, Lee Road, State Route 208, Prospect Road, Old Windsor Road, Black Meadow Road, Kings Highway (Route 13), East Mombasha Road, Maybrook Road, Willow Lane, and Midway Road.

The Village of South Blooming Grove also identified the following vulnerable areas:

- Satterly Creek Basin and surrounding areas
- Merriewold Lake dam spillway
- Peddler Hill Dam Road
- Stonegate Drive stream crossing and culvert
- Culverts at Merriewold Lane North and Lakeshore Drive

#### *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 any Extreme Temperatures that have explicitly impacted the Village of South Blooming Grove, 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 Storms*

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

#### Historical Occurrence:

Several sources provided historical information regarding previous occurrences and losses associated with severe storm systems throughout New York State and Orange County. For severe storm damages the National Climatic Data Center (NCDC) Storm Events Database was queried. When available storm related losses specific to the Village of South Blooming Grove were included. The table below shows severe storm events which impacted the Town of Blooming Grove including the Village of South Blooming Grove.

Table 10.2.30d: Severe Storm Events Town of Blooming Grove and Village of South Blooming Grove (2011-2016)					
Date of Event	Event Type	FEMA Declaration Number	County Designated?	Losses/ Impacts	Source(s)
June 3, 2014	Hail	N/A	N/A	An isolated severe storm impacted eastern Orange County. Quarter size hail was observed by a trained spotter in the Town of South Blooming Grove.	NCDC

*Drought*

A drought is defined as a prolonged period of limited precipitation affecting the supply and quality of water (HIRA-NY Definitions of Hazards). An absolute drought consists of a period of at least fifteen (15) consecutive days where none of the days experience 0.01 inches of rain or greater. A partial drought is a period of at least twenty (20) consecutive days where the mean daily rainfall does not exceed 0.01 inches. A dry spell consists of a period of at least fifteen (15) consecutive days where none of the days experience 0.04 inches or more of rainfall (USGS, 2009). Drought periods progress through stages and drought intensity may vary considerably during the drought period. The time of occurrence and duration of a drought event can cause significant variations in drought impacts (HIRA-NY Definitions of Hazards).

Historical Occurrence:

The Town of Blooming Grove indicates NCDC storm events database identified ten (10) drought events which impacted Orange County between 1950 and 2012. A review of the NCDC storm events database did not identify any drought events occurring after 2012. The following table identifies drought events which have impacted the Town of Blooming Grove and the Village of South Blooming Grove between 2001 and 2015. Sources used to obtain this information were the Orange County HMP, NCDC storm events data, and USDA historical loss data.

Table 10.2.30e: Drought Events Town of Blooming Grove and Village of South Blooming Grove (2001-2015)			
Dates of Event	Event Type	Losses/ Impacts	Source(s)
November 2001 – January 2002	Water Shortage	The combined storage in the New York City water supply reservoir system was 41% of capacity (normal for this time is 71%).	NYS HMP, Orange County HMP, NCDC
April – October 2002	Drought and Water Shortage	Ground water and water storage facilities were below normal. The New York City reservoir system reached a low of 64.5%, which was 34% below normal. Orange County Officials claimed that this was the worst drought in almost 30 years.	NYS HMP, Orange County HMP, NCDC
June 1 to October 24, 2012	Drought and Excessive Heat (USDA Designation Number S3427)	USDA Disaster Designation information indicates that drought and excessive heat conditions resulted in production losses. USDA historical loss data indicates that onion and corn crop impacts resulted in approximately \$23,750 worth of damages in Orange County.	USDA

Table 10.2.30e: Drought Events Town of Blooming Grove and Village of South Blooming Grove (2001-2015)			
Dates of Event	Event Type	Losses/ Impacts	Source(s)
Winter 2013	Drought (USDA Designation Number S3487)	Drought conditions were observed over the winter of 2013, no associated crop losses occurred due to the timing of the drought.	USDA
August 15, 2014-Continuing	Drought (USDA Designation Number S3759)	USDA Disaster Designation information indicates that drought conditions caused agricultural damages across Orange County. USDA historical loss data indicates that onion crop impacts resulted in approximately \$10,350 worth of damages in Orange County.	USDA
April 1, 2015-September 29, 2015	Excessive Heat and Drought (USDA Designation Number S3930)	USDA Disaster Designation information indicates that drought conditions caused agricultural damages across Orange County. USDA historical loss data indicates that corn crop impacts resulted in approximately \$7,725 worth of damages in Orange County.	USDA

### *Earthquake*

Earthquakes can result in mass damage depending on severity; they also lack much forewarning. According to the USGS Seismic Hazard Map for Percent Peak Acceleration, the Village of South Blooming Grove is shown as being at higher seismic risk than the majority of municipalities within New York State. The Ramapo Fault Zone spans one hundred and eighty-five (185) miles between the Northern Appalachian Mountains in the east through New York, New Jersey, and Pennsylvania. Earthquakes in this region rarely exceed 3.0 on the Richter Scale. Earthquakes in the Village of South Blooming Grove are an uncommon event and rarely result in significant damages. The 2011 Orange County HMP identifies records that show several minor earthquakes were actually epi-centered in Orange County between 1737 and 1986.

### Historical Occurrence:

The most recent earthquake event occurred on April 20, 2003. Measuring 2.3 on the Richter scale, no major damages were reported. This event was a Federally-declared disaster for much of southern New York State. According to the NYSDHSES, New York State may expect to experience a damaging earthquake event once every twenty-two (22) years.

### *Severe Winter Storm*

Winter storms create damage due to snowfall and winds, with occasional sleet, freezing rain, or hail occurring. Snowfall impairs visibility, obstructs roadways and facilities, and causes tree limbs to fall and roofs to collapse due to weight. It also creates slick roadways which can be compounded further by sleet or freezing rain events. The Village of South Blooming Grove experiences the effect of severe winter storms frequently.

## Historical Occurrences

- December 26, 2010 – A rapidly intensifying low pressure system tracked from off the Southeast US coast on Christmas Day and then past the Mid Atlantic Coast on Sunday December 26th to just east of Long Island by early Monday morning December 27th. This intense low pressure system spread snowfall into the region Sunday morning, with bands of heavy snow plus embedded thunderstorms and very strong winds affecting the region Sunday afternoon through Sunday night. The powerful blizzard (defined when sustained winds or frequent gusts greater than or equal to 35 mph accompanied by falling and/or blowing snow, frequently reducing visibility to less than 1/4 mile for three hours or more) brought a widespread area of 20 to 30 inches of snow across the NYC metro and Lower Hudson Valley, with 10 to 20 inches across Long Island. The heavy snow was accompanied by area wide winds of 25 to 40 mph and gusts in excess of 60 mph Sunday afternoon into Sunday night, resulting in near white-out conditions with blowing and drifting snow and making all forms of travel extremely difficult to nearly impossible. In fact, all three major New York Airports were closed during and for a period after the storm. Bus service was severely hampered, and all service on the LIRR and several lines of MTA North, MTA subway, and PATH were suspended Sunday night into Monday morning due to high snow drifts. New York City struggled with snow removal due to the overwhelming blowing and drifting snow and stranded or abandoned buses and cars littering the streets, which severely hampered emergency services response times. In addition, 8000 customers lost power in New York City and Southern Westchester Counties, 8500 in Putnam and Northern Westchester, and 12,000 on Long Island during the height of the storm.

Bands of heavy snow fell at rates of one to three inches an hour and totals ranged from one to two feet. In the Village of South Blooming Grove, all roads were impassable. The roof at Village Hall collapsed due to the accumulated snow. Several private properties also experienced damages. FEMA provided over \$37 M in public assistance for those counties affected by this event.

- October 29, 2011 – A historic early season winter storm impacted the area. Heavy wet snow fell across the area measuring up to a foot in the Lower Hudson Valley. Thousands of people in southeast New York lost power from snow accumulating on trees still having full foliage. This caused extensive damage to the power lines. In the Village of South Blooming Grove, the heavy winds from the storm caused massive amounts of debris and power outages. Village roads were impassable.

Late Friday night, October 28, an area of low pressure emerged from the South Carolina coastal plain into the western Atlantic Ocean. The low moved up the coast late Friday night into Saturday morning. The low began to rapidly strengthen late Saturday morning when it was east of the Delmarva coast, and continued to strengthen as it passed south of Long Island Saturday night. With water temperatures in the lower 60s, much of Long Island received mainly rainfall and up to 2 inches of rain during the event. Areas just north and west of New York City, however, were just cold enough to support a heavy wet snow. The heaviest snow fell across interior portions of the Lower Hudson Valley, with



one foot or more of snowfall across highest elevations. In addition to the heavy rain and snow, strong winds were experienced along the immediate coastline.

Thousands of people across southeast New York lost power during this event as heavy snow accumulated on trees that still had partial to full foliage during mid-autumn. This caused extensive felling of trees and limbs across the region and damage to power lines.

- Record Online reported of a major winter storm which impacted the County on February 13-14, 2014. This storm dropped over a foot of snow and high winds to the Town of Blooming Grove, which includes the Village of South Blooming Grove. Power outages were reported within Orange and Rockland Counties.

Winter storms impact the Village on a regular basis. However, typically severe winter storms are large systems and would result in County or regional impacts.

### *Wildfire*

A wildfire is defined as an uncontrollable combustion of trees, brush, or grass involving a substantial land area which may have the potential for threatening human life and property. Dry conditions at various times of the year can increase the potential for wildfire events. Often, wildfires begin abruptly and spread quickly, creating a dense smoke that can fill the surrounding area for miles. Humans start four (4) out of every five (5) wildfires, typically due to debris burns, arson, or carelessness. Lightning strikes are also a leading cause of wildfires (NYS DEC, 2016).

One of the major contributing factors to severity of wildfires depends on the presence of humans within areas where wildfires would typically occur. The Wildland/Urban Interface (WUI) is the area where houses and wildland vegetation meet. Housing developments alter the structure and function of forests. Wildfires are common in forests they help to cycle nutrients within forests as well as remove combustible debris. However, with human lives and structures mixed into the equation, wildfires need to be controlled and manipulated. This manipulation results in fewer wildfires which results in the accumulation of combustible materials, which can lead to larger more intense wildfires. The 2014 Annual Report for the NYSDEC Division of Forest Protection indicates that there were twenty-three (23) wildfires within Zone 3B which includes the Village of South Blooming Grove. These wildfires burned a total of two hundred and thirty-nine (239) acres; none of these wildfires were over one hundred (100) acres in size. The 2013 Annual Report for the NYSDEC Division of Forest Protection indicates that there were eleven (11) wildfires in Zone 3B that year. Two (2) of these wildfires were over one hundred (100) acres in size with a total of 672.6 acres were burned during the season. The 2012 Annual Report for the NYSDEC Division of Forest Protection shows that there were seven (7) wildfires in Zone 3B that year. One of these wildfires was over one hundred (100) acres in size and a total of 507.6 acres were burned during the 2012 wildfire season. DMA 2000-Town of Blooming Grove Multi-Jurisdictional All-Hazard Mitigation Plan (2013) estimated that approximately two hundred and nineteen (219) people lived within the WUI in the Town of Blooming Grove (includes the Village of South Blooming Grove). This represents approximately 2.5% of the Town's total population.

*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 Village of South Blooming Grove, however, there have been a number of recorded occurrences within Orange County. The information can be found in the main body of the document.

*Dam Failure*

Dam failure is identified as dam structural deterioration, either gradual or sudden, that results in the inability to control impounded water as designed. This deterioration poses a danger to people and/or property in the potential inundation area. Dam failure can occur with little warning. Intense storms may produce a flood in a few hours or even minutes for upstream locations. Dams are man-made structures normally constructed of earth or concrete. There are nineteen (19) dams located within the Town of Blooming Grove planning area (includes Village of South Blooming Grove), of which ten (10) are small and do not constitute a serious threat to the downstream area if they were to fail. There are six (6) medium hazard dams and three (3) high hazard dams. The following table identifies medium and high hazard dams (C and B) within the Town of Blooming Grove and the Village of South Blooming Grove.

<b>Table 10.2.30f: High and Medium Hazard Dams in the Town of Blooming Grove and Village of South Blooming Grove</b> (NYSDEC, 2016)					
<b>Dam Name</b>	<b>River/Stream</b>	<b>Maximum Storage (Acre Foot)</b>	<b>Dam Height (Feet)</b>	<b>Hazard Classification (NYSDEC)</b>	<b>EAP on File</b>
Beaver Dam/Lake Dam	Tributary of Moodna Creek	2,644	35	C	No
Tomahawk Lake Dam	Cromline Creek	3,359	25	C	Yes
Willow Brook Dam	Tributary of Merriewold Lake	955	19	C	Yes
Schoonmaker Lake	Perry Creek	16	16	B	No
Hildegarde Lake Dam	Tributary of Moodna Creek	87	10	B	No
Merriewold Lake Dam	Satterly Creek	96	50	B	No
William Curtis Dam	Perry Creek	10	15	B	No
Stuts Dam	N/A	6.2	10	B	No
Salisbury Mills Dam	Moodna Creek	1,470	29	B	No

### 10.2.30.4 Capability Assessment

#### *Planning and Regulatory Capability*

<b>Table 10.2.30g: Planning and Regulatory Capabilities for the Village of South Blooming Grove</b>		
<b>Regulatory Tools for Hazard Mitigation</b>	<b>Description</b>	<b>Responsible Department/Agency</b>
Codes	<ul style="list-style-type: none"> <li>• <b>Village of South Blooming Grove- Local Law, Building Code</b>, includes zoning, subdivision ordinance, floodplain, and natural hazard specific ordinances.</li> </ul>	<ul style="list-style-type: none"> <li>• Building inspector, Zoning Board, Planning Board</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Codes of New York State</b>, includes provisions for development and activities within floodplain areas</li> </ul>	<ul style="list-style-type: none"> <li>• NYS Laws</li> </ul>
Ordinances	<ul style="list-style-type: none"> <li>• <b>Zoning Ordinance</b></li> <li>• <b>Subdivision Ordinance</b></li> <li>• <b>Floodplain Development Permit</b></li> <li>• <b>Site Plan Review Requirements</b></li> </ul>	<ul style="list-style-type: none"> <li>• Board of Alleals Chairwoman</li> <li>• Village Planner</li> <li>• Village Engineer</li> <li>• Village Engineer</li> </ul>
Plans, Manuals, and/or Guidelines	<ul style="list-style-type: none"> <li>• <b>Floodplain Management/ Basin Plan</b>, a public consensus planning document</li> </ul>	<ul style="list-style-type: none"> <li>• Village Engineer</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Comprehensive Plan Management Plan</b></li> </ul>	<ul style="list-style-type: none"> <li>• Village Engineer</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Stormwater Management Plan/Ordinance</b></li> </ul>	<ul style="list-style-type: none"> <li>• Village Engineer</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Comprehensive Emergency Management Plan</b></li> </ul>	<ul style="list-style-type: none"> <li>• Village Engineer</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Emergency Response Plan</b></li> </ul>	<ul style="list-style-type: none"> <li>• Emergency Management</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Post-Disaster Recovery Plan (Under</b></li> </ul>	<ul style="list-style-type: none"> <li>• Emergency Management</li> </ul>
Studies	<ul style="list-style-type: none"> <li>• <b>FIRM Flood Insurance Rate Maps</b></li> </ul>	<ul style="list-style-type: none"> <li>• FEMA</li> </ul>

#### *Administrative and Technical*

<b>Table 10.2.30h: Summary of Administrative and Technical Staff Capabilities for the Village of South Blooming Grove</b>		
<b>Staff/Personnel Resources</b>	<input checked="" type="checkbox"/>	<b>Department/Agency - Position</b>
Planner(s) or engineer(s) with knowledge of land development and land management practices	<input checked="" type="checkbox"/>	Village Consultant Engineer and Planner
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	<input checked="" type="checkbox"/>	Village Consultant Engineer and Planner
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	<input checked="" type="checkbox"/>	Village Building Inspector
NFIP Floodplain Manager	<input checked="" type="checkbox"/>	Village Consultant Engineer
Emergency Manager	<input checked="" type="checkbox"/>	Joint Emergency Manager for the Town of Blooming Grove and the Villages of South Blooming Grove and Washingtonville
Person skilled or trained in "GIS" applications	<input checked="" type="checkbox"/>	Village Consultant Engineer

<b>Staff/Personnel Resources</b>	<input checked="" type="checkbox"/>	<b>Department/Agency - Position</b>
Staff with expertise or training in benefit/cost analysis	<input checked="" type="checkbox"/>	Village Consultant Engineer
Grant writer	<input checked="" type="checkbox"/>	Various Department Heads

*Fiscal*

The following table summarizes financial resources available to the Village of South Blooming Grove.

<b>Financial Resources</b>	<b>Accessible or Eligible to Use (Yes, No, Don't Know)</b>	<b>Comments</b>
Community Development Block Grants (CDBG)	Yes, only for senior facilities currently	Senior facilities only
Capital Improvements Project funding	Yes	Village Board
Authority to levy taxes for specific purposes	Yes	Village Board
Fees for water, sewer, gas, or electric service	Yes	Village Board
Impact fees for homebuyers or new developments/homes	No	N/A
Incur debt through general obligation bonds	Yes	Village Board
Incur debt through special tax bonds	Yes	Village Board
Withhold public expenditures in hazard-prone areas	No	N/A
State mitigation grant programs	Yes	Village Board
Other	No	N/A

*NFIP: Administrator, Vulnerability, Resources, Compliance*

The Village of Blooming Grove has participated in NFIP (ID# 360194) since 8/3/2009. Administration is provided through the Village Board. The Village has a floodplain development permit which is administered by a Village of South Blooming Grove Consultant Engineer. This individual is responsible for reviewing Floodplain Development Permit Applications, granting permits, maintaining construction compliance, and reviewing post

construction impacts. Details of NFIP policies within the Village of South Blooming Grove are provided. FEMA did not identify any repetitive or severe repetitive loss properties within the Village of South Blooming Grove. (Table 8.2c) Policy, claim, and repetitive loss data is most recent in Section 8.2 of this document.

Table 10.2.30j: NFIP Statistics for the Village of South Blooming Grove (FEMA)				
NFIP Loss Statistics as of January 31, 2018				
Total Losses	Closed Losses	Open Losses	CWOP Losses	Total Payments
10	3	0	7	\$31,483.91
NFIP Policy Statistics As of January 31, 2018				
Policies in-force	Insurance in-force		Written Premium in-force	
90	\$10,374,000		46,895	
CWOP= Losses that have been closed without payment				

The Village 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 #2 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.

*Hazard Mitigation: Existing and Planning Mechanisms*

Emergency Communications, Routes, and Shelters:

The Village of South Blooming Grove utilizes the CONNECT-CTY emergency notifications tool. Additionally, Orange County utilizes the CodeRED system for emergency notification. The Village follows emergency route rules set by Orange County. The Village has one (1) designated emergency shelter: Round Hill Elementary School (205 Rt. 208, Washingtonville, NY 10992). More information on these sites can be found in Attachment III.

Comprehensive Plan:

The Village’s Comprehensive Plan is currently under development. The Village of South Blooming Grove Zoning Code was adopted in 2009 and provides regulations for land development particularly in relation to flood damage prevention and stormwater management.

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 10.2.30k: Incorporation of Hazard Mitigation Planning into Existing and Future Planning Mechanisms		
Planning Mechanism	Has been Utilized	May be Utilized
<b>Capital Improvement Budget:</b> 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	X
<b>Operating Budget:</b> Hazard Mitigation Actions to be considered within day-to-day operating budgets as funding permits.	X	X
<b>Building &amp; Zoning Ordinances:</b> 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	X
<b>Comprehensive Land Use Plan:</b> 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	X
<b>Human Resource Manual:</b> Employee job descriptions may contain elements related to hazard mitigation planning and associated recommendations.		X
<b>Grant Applications:</b> Support for funding requests in the form of data, maps, and priority recommendations will be drawn from the hazard mitigation plan.	X	X
<b>Fire Plan:</b> Fire Plans for the municipality and local fire departments can utilize data and mapping in the hazard mitigation plan.	X	X
<b>Local School Service Projects:</b> 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
<b>Economic Development:</b> 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

*Summary*

This Plan will be used to inform the Village’s Comprehensive Plan, Codes, and provide guidance on actions moving forward.

**10.2.30.5 Mitigation Strategy and Prioritization**

*Past, Completed, and Ongoing Initiative*

The Village did not identify any past, completed or ongoing mitigation related initiatives. None of the proposed actions from the last local hazard mitigation plan have been completed and are thus included in this plan as re-issued proposed mitigation actions. The past recommended mitigation actions were not completed due to lack of available funding.

*Proposed Hazard Mitigation Initiatives*

See Table 10.2301 on the following page. The Village elected to renew the mitigation actions developed in the 2013 Town of Blooming Grove Multi-Jurisdictional Hazard Mitigation Plan. As such, the following table depicts actions to be included in the 2018 Orange County Multi-Jurisdictional Hazard Mitigation Plan.

Table 10.2.30I: Proposed Hazard Mitigation Initiatives for the Village of South Blooming Grove										
Action ID	Mitigation Action	Applies to New and/or Existing Structures	Hazard(s) Mitigated	Lead and Support Agencies	Estimated Benefits	Estimated Costs	Sources of Funding	Timeline	Priority	Mitigation Category
<b>Mitigation Type: Prevention</b>										
VS-1	Continue to support the implementation, monitoring, maintenance, and updating of this Plan.	New and Existing	All Hazards	Municipality with support from Planning Partners, County Planning, NYSDHSES, FEMA	High	Low – High (for 5 year update)	Municipal Budget, FEMA planning grants	On-going	H	PR
VS-2	Adopt regulations for undergrounding utilities in new developments.	N/A	Severe Storm	Municipal Council	Medium	Low	Municipal Budget	Short	M	PR
VS-3	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives SBG-8 and SBG-13 below.	N/A	Flood, Severe Storm	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSDHSES, FEMA	Medium	Low-Medium	Municipal Budget	On-Going	M	PR, PE
VS-4	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	N/A	Severe Storm	Municipal Code Enforcement	Medium	Low	Municipal Budget	Short	M	PR
VS-5	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	N/A	All Hazards	Municipality with support from the County, NYSDHSES, FEMA and surrounding communities	Medium	Low	Municipal Budget	Short Term	M	PR, ES
VS-6	Implement permit fee waivers for installation of backup power for private property.	N/A	Severe Storm	Municipal Council	Medium	Low	Municipal Budget	Short	M	PR
VS-7	Obtain and archive elevation certificates	N/A	Flood, Severe Storm	NFIP Floodplain Administrator	Medium	Low	Municipal Budget	On-going	M	PR
VS-8	Support ongoing updates of Comprehensive Emergency Management Plans, and implement Hazard Mitigation actions enumerated in the Village of South Blooming Grove Emergency Management Plan.	New and Existing	All Hazards	Municipality with support from the County Emergency Management	Low	Low	Municipal Budget	On-going	M	PR



**Table 10.2.30I: Proposed Hazard Mitigation Initiatives for the Village of South Blooming Grove**

Action ID	Mitigation Action	Applies to New and/or Existing Structures	Hazard(s) Mitigated	Lead and Support Agencies	Estimated Benefits	Estimated Costs	Sources of Funding	Timeline	Priority	Mitigation Category
VS-9	Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment and hazard mitigation. Projects include, but will not be limited to Install automatic level sensing devices on streams and lakes to provide for early warning of potential flooding - Develop 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.	N/A	All Hazards	Hazard Mitigation Plan Coordinator	Medium-High	Medium-High	FEMA Mitigation Grant Programs with local Match	Long Term DOF	M	PR
VS-10	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas.	N/A	All Hazards	Municipality with support from County, NYSDHSES and FEMA	Medium	Medium	Municipal Budget	Short	M	PR
VS-11	Develop programs/procedures to capture and archive loss data from events. Examples include: Record location and length of roadway closures; Develop a database of residential and commercial property damage, including permit history for such repairs; High water marks, perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs).	N/A	All Hazards	Municipality with support from County, NYSDHSES and FEMA	Medium	Medium	Municipal Budget	Short	M	PR
VS-12	Promote the participation of Floodplain Administrators within the planning process and other activities.	N/A	Flood	Municipality with support from County, NYSDHSES, FEMA	Medium	Medium	Municipal Budget	Short	M	PR
VS-13	Work with regional agencies (i.e. County and NYSDHSES) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	N/A	All Hazards	Municipality with support from County, NYSDHSES and FEMA	Medium	Medium	Municipal Budget, FEMA, HMA and HLS grant programs	Short-Long Term	M	PR
VS-14	Identify and develop agreements with entities that can provide support with FEMA/NYSDHSES paperwork after disasters; qualified assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/NYSDHSES paperwork compilation, submissions, record-keeping	N/A	All Hazards	Municipality with support from County, NYSDHSES and FEMA	Medium	Medium	Municipal Budget	Long Term	L	PR, ES

**Table 10.2.30I: Proposed Hazard Mitigation Initiatives for the Village of South Blooming Grove**

Action ID	Mitigation Action	Applies to New and/or Existing Structures	Hazard(s) Mitigated	Lead and Support Agencies	Estimated Benefits	Estimated Costs	Sources of Funding	Timeline	Priority	Mitigation Category
VS-15	Purchase, relocate, or elevate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss property as priority. Phase 1: Identify appropriate candidates based on cost-effectiveness. Phase 2: Where determined to be a viable option, work with property owners toward implementation of the determined action based on available funding from FEMA and local match availability. Projects for immediate consideration include acquisition or elevation of the private residence in the Tappan Subdivision, the Town Maintenance Garage, and the Tappan Water Plant facilities. Also refer to TBG action #20.	Existing	Flood, Severe Storm	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from County Planning, NYSDHSES, FEMA	High	High	FEMA Mitigation Grants	Long Term DOF	H	PP
VS-16	Provide public education and outreach on proper installation and/or use of backup power	N/A	Severe Storm	Municipal Clerk	Medium	Low	Municipal Budget	Short	M	PE
VS-17	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: - Conduct educational outreach to owners of important water resources facilities - Educate property owners in stream maintenance. - Provide and maintain links to the HMP website, and 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.	N/A	All Hazards	Municipality with support from Planning Partners, County Planning, NYSDHSES, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term	M	PE
VS-18	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program.	N/A	Severe Storm	Municipality with support from County, NYSDHSES and FEMA	Medium	Low	Municipal Budget	Short Term	M	PE

**Table 10.2.30I: Proposed Hazard Mitigation Initiatives for the Village of South Blooming Grove**

Action ID	Mitigation Action	Applies to New and/or Existing Structures	Hazard(s) Mitigated	Lead and Support Agencies	Estimated Benefits	Estimated Costs	Sources of Funding	Timeline	Priority	Mitigation Category
<b>Mitigation Type: Natural Resources Protection</b>										
VS-19	Stonegate Drive stream crossing and culvert	N/A	Flood	Municipality with support from County Planning, NYSDHSES	High	Medium	Municipal Budget	Long Term	H	NR
VS-20	Increase size and capacity of culverts on Merriewold Lane North and Lakeshore drive continuation	N/A	Flood	Municipality with support from County Planning, NYSDHSES	High	Medium	Municipal Budget	Long Term DOF	H	NR
VS-21	Continue operation of Satterly Creek reclamation	Existing	Flood	Municipality with support from County Planning, NYSDEC	High	Medium	Municipal Budget, HMA programs with local or County match	Long Term	H	NR
VS-22	Pursue hydraulic analysis of Satterly Creek to address Stormwater issues and to identify solutions to reduce impact downstream. The results of this analysis will be used to in the development of future projects to mitigate flooding.	Both	Flood	Municipality with support from neighboring jurisdictions, NYSDEC	Medium	Medium	Municipal Budget	Short Term	M	NR
VS-23	Peddler Hill Road and dam	Existing	Flood	Municipality with support from County Planning, NYSDEC, and NYSDHSES	Medium	Medium	Municipal Budget	Short Term	M	SP
VS-24	Merriewold Lake dam Spillway continuation	Existing	Flood	Municipality with support from County Planning, NYSDEC, and NYSDHSES	Medium	Medium	Municipal Budget	Short Term	M	SP
VS-25	Redesign Merriewold Lake spillway	Existing	Flood	Municipality with support from County Planning, NYSDEC, and NYSDHSES	Medium	Medium	Municipal Budget	Short Term	M	SP
<b>Mitigation Type: Emergency Services</b>										
VS-26	Improve communication systems, including the following recommendations called for in the Village of South Blooming Grove Emergency Management Plan:- development of redundant utilities/communications systems- develop and implement hurricane/severe storm/tornado early warning system and evacuation plans -develop and implement a dam failure warning system and evacuation plans	N/A	All Hazards	Municipality with support from Planning Partners, County Planning, NYSDHSES, FEMA	High	Medium	Municipal Budget	Short Term	M	ES

**Table 10.2.30I: Proposed Hazard Mitigation Initiatives for the Village of South Blooming Grove**

Action ID	Mitigation Action	Applies to New and/or Existing Structures	Hazard(s) Mitigated	Lead and Support Agencies	Estimated Benefits	Estimated Costs	Sources of Funding	Timeline	Priority	Mitigation Category
VS-27	Obtain and install backup power sources at critical facilities.	N/A	All Hazards	Municipality with support from Planning Partners, County Planning, NYSDHSES, FEMA	Medium	Medium	Municipal Budget	Short Term	M	ES
<p>1. <i>PR = Prevention: Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.</i></p> <p>2. <i>PP = Property Protection: 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.</i></p> <p>3. <i>PE = Public Education and Awareness: Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.</i></p> <p>4. <i>NR = Natural Resource Protection: Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.</i></p> <p>5. <i>SP = Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.</i></p> <p>6. <i>ES = Emergency Services: Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.</i></p>										

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 Village did not identify any future needs outside of the mitigation actions outlined above.

**10.2.30.6 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 - Village of South Blooming Grove**

**Legend**

**NYSDEC Bulk Storage Facilities**

- NYSDEC Bulk Storage Facilities

**Dam Locations**

- Dam Locations

**Critical Infrastructure**

- DPW
- ELDER CARE
- FIREHOUSE
- GOVERNMENT
- MEDICAL
- RADIO TOWER
- RESERVOIR
- SCHOOL

**Land Use**

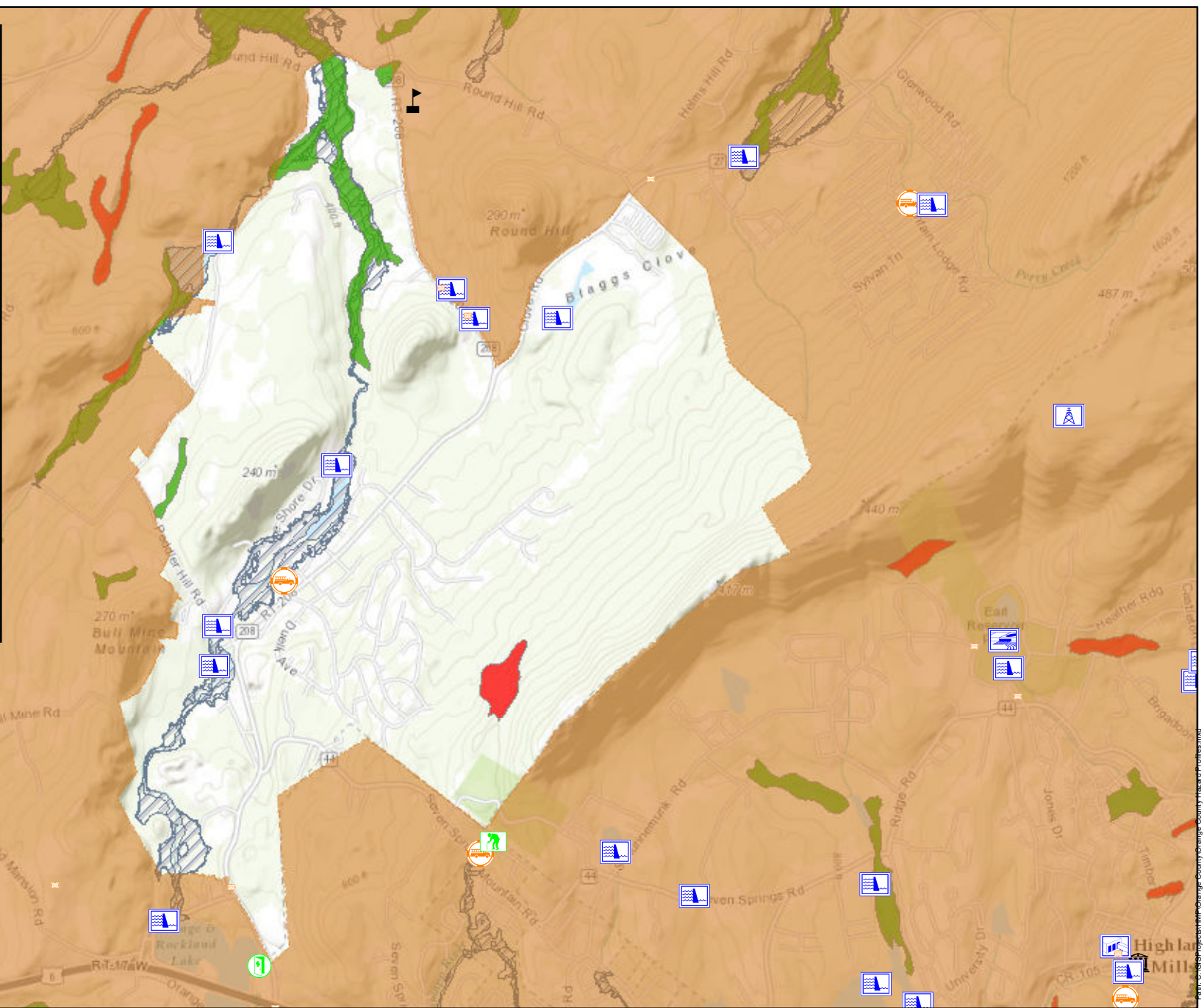
- Parks
- Orange Municipal Boundaries Page Area of Interest
- Orange Municipal Boundaries
- Orange County

**Land Slide Rating**

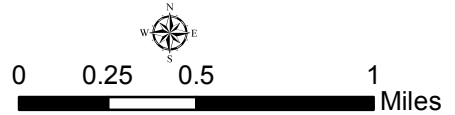
- 37 - 48
- 49 - 58
- 59 - 69
- 70 - 79

**Floodplain**

- 100 Year Flood
- 500 Year Flood



Sources:



## **Attachment II**

# **STAPLEE Mitigation Action Cost/Benefit Analysis - Village of South Blooming Grove**



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

Jurisdiction: Village of South Blooming Grove

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	
VS-1	Continue to support the implementation, monitoring, maintenance, and updating of this Plan.	+	+	0	+	+	+	0	+	+	0	High	Medium	High
VS-2	Adopt regulations for undergrounding utilities in new developments.	+	+	-	0	+	0	0	+	+	0	Medium	Low	Medium
VS-3	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives SBG-7 and SBG-12 below.	+	+	0	+	+	0	0	0	+	0	Medium	Medium	High
VS-4	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	+	+	+	+	+	0	0	0	+	0	Medium	Medium	Low
VS-5	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	+	+	+	+	+	0	0	+	+	0	High	Low	High
VS-6	Implement permit fee waivers for installation of backup power for private property.	0	+	+	0	0	+	-	0	+	0	Medium	High	Low
VS-7	Obtain and archive elevation certificates	+	+	0	+	+	0	0	+	+	+	Medium	Low	Medium
VS-8	Support ongoing updates of Comprehensive Emergency Management Plans, and implement Hazard Mitigation actions enumerated in the Village of South Blooming Grove Emergency Management Plan.	+	+	+	+	+	0	0	0	+	0	High	Medium	Medium

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

Jurisdiction:

Village of South Blooming Grove

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	
VS-9	Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment and hazard mitigation. Projects include, but will not be limited to Install automatic level sensing devices on streams and lakes to provide for early warning of potential flooding - Develop 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.	+	+	0	+	0	0	0	+	+	+	Medium	Medium	Medium
VS-10	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas.	0	0	0	+	0	-	+	-	+	-	High	Medium	High
VS-11	Develop programs/procedures to capture and archive loss data from events. Examples include: Record location and length of roadway closures; Develop a database of residential and commercial property damage, including permit history for such repairs; High water marks, perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs).	+	+	0	+	+	0	0	0	+	0	Medium	Medium	Medium
VS-12	Promote the participation of Floodplain Administrators within the planning process and other activities.	+	+	+	+	+	+	+	+	+	+	Medium	Low	High
VS-13	Work with regional agencies (i.e. County and NYSOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	+	+	+	+	+	0	0	0	+	-	Medium	Medium	Medium
VS-14	Identify and develop agreements with entities that can provide support with FEMA/NYSOEM paperwork after disasters; qualified assessment personnel –Improve post-disaster capabilities – damage assessment; FEMA/NYSOEM paperwork compilation, submissions, record-keeping	+	+	+	+	+	0	0	0	+	-	Medium	Medium	Medium

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

Jurisdiction: Village of South Blooming Grove

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	
VS-15	Purchase, relocate, or elevate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss property as priority. Phase 1: Identify appropriate candidates based on cost-effectiveness. Phase 2: Where determined to be a viable option, work with property owners toward implementation of the determined action based on available funding from FEMA and local match availability. Projects for immediate consideration include acquisition or elevation of the private residence in the Tappan Subdivision, the Town Maintenance Garage, and the Tappan Water Plant facilities. Also refer to TBG action #20.	+	+	0	+	+	-	+	-	+	0	Medium	Medium	Medium
VS-16	Provide public education and outreach on proper installation and/or use of backup power	+	+	+	+	+	0	0	0	+	0	Low	Low	Low
VS-17	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: - Conduct educational outreach to owners of important water resources facilities - Educate property owners in stream maintenance. - Provide and maintain links to the HMP website, and 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	+	+	0	+	+	0	0	+	+	-	High	Low	High
VS-18	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program.	+	+	+	+	+	0	0	0	+	0	Medium	Low	Medium
VS-19	Stonegate Drive stream crossing and culvert	+	+	0	+	+	0	0	-	+	-	Medium	Medium	Medium

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

Jurisdiction: Village of South Blooming Grove

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	
VS-20	Increase size and capacity of culverts on Merriewold Lane North and Lakeshore drive continuation	+	+	0	+	+	0	0	-	+	-	High	High	High
VS-21	Continue operation of Satterly Creek reclamation	+	+	+	+	0	0	+	-	+	-	Medium	Medium	Medium
VS-22	Pursue hydraulic analysis of Satterly Creek to address Stormwater issues and to identify solutions to reduce impact downstream. The results of this analysis will be used to in the development of future projects to mitigate flooding.	+	+	0	+	+	0	+	0	+	0	High	Medium	High
VS-23	Peddler Hill Road and dam	+	+	0	+	+	0	0	-	+	-	High	High	High
VS-24	Merriewold Lake dam Spillway continuation	+	+	0	+	0	0	0	-	+	-	Medium	Medium	High
VS-25	Redesign Merriewold Lake spillway	+	+	0	+	+	0	0	-	+	-	Medium	Medium	High
VS-26	Improve communication systems, including the following recommendations called for in the Village of South Blooming Grove Emergency Management Plan: - development of redundant utilities/communications systems, - develop and implement hurricane/severe storm/tornado early warning system and evacuation plans, - develop and implement a dam failure warning system and evacuation plans.	+	+	+	+	+	+	0	0	+	0	High	Medium	Medium
VS-27	Obtain and install backup power sources at critical facilities	+	+	0	+	+	+	0	+	+	0	Medium	Medium	High

## **Attachment III**

### **Hazard Mitigation Worksheets - Village of South Blooming Grove**

## Mitigation Actions and Strategy Detail Worksheet

<b>Action Worksheet</b>	
Name of Jurisdiction	Village of South Blooming Grove
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	VS - 19
Name of Action/Project	Stonegate Drive stream crossing & culvert.
Summary of Evaluation: Benefits (losses avoided), estimated costs, and other factors considered	Stonegate Drive stream crossing & culvert.
<b>Plan for Implementation</b>	
Responsible Organization	Village Town Board, County Planning, NYSDHSES
Action/Project Priority	High
Potential Funding Sources	Municipal Budget
Other assisting organizations, entities, etc.	N/A
Local planning mechanisms to be used in project/action implementation, if any	None.
<b>Progress Report</b>	
Date of status report	
Report of progress	
Evaluation of effectiveness	

## Mitigation Actions and Strategy Detail Worksheet

<b>Action Worksheet</b>	
Name of Jurisdiction	Village of South Blooming Grove
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	VS – 20
Name of Action/Project	Continuation of increasing size & capacity of culverts.
Summary of Evaluation: Benefits (losses avoided), estimated costs, and other factors considered	Increase size & capacity of culverts on Merriewold Lane North & Lakeshore Drive continuation.
<b>Plan for Implementation</b>	
Responsible Organization	Village Town Board, County Planning, NYSDHSES
Action/Project Priority	High
Potential Funding Sources	Municipal Budget
Other assisting organizations, entities, etc.	N/A
Local planning mechanisms to be used in project/action implementation, if any	None.
<b>Progress Report</b>	
Date of status report	
Report of progress	
Evaluation of effectiveness	

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

Name of Your Municipality:	<u>Village of South Blooming Grove</u>
Common Name of Your Emergency Shelter:	<u>Round Hill Elementary School</u>
Street Address of Your Emergency Shelter:	<u>205 Route 208, Washingtonville, NY 10992</u>
Name of the Owner of Your Emergency Shelter:	<u>Washingtonville Central School District</u>
Name of the Regular Occupant of Your Emergency Shelter:	<u>Washingtonville Central School District</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 Village of South Blooming Grove, 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 Village of South Blooming Grove, 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 Village of South Blooming Grove, 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 \_\_\_\_\_.

\_\_\_\_\_  
(Mayor)

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