

9.27 VILLAGE OF STILLWATER

This section presents the jurisdictional annex for the Village of Stillwater.

A.) HAZARD MITIGATION PLAN POINT OF CONTACT

| Primary Point of Contact | Alternate Point of Contact |
|---|---|
| Ernest W. Martin – Mayor P.O. Box 507 Stillwater, NY 12170 518-864-6258 emartin001@nycapp.rr.com | Patty Ryan – Village Clerk P.O. Box 507 Stillwater, NY 12170 518-864-6258 stlclerk@nycap.rr.com |

B.) VILLAGE PROFILE

Population

1,693 (estimated 2007 U.S. Census)

Location

The Village of Stillwater is located in the southeast part of the Town of Stillwater, north of the City of Mechanicville. Stillwater is on the west side of the Hudson River, opposite at the county line of Rensselaer County. Schuyler Creek enters the Hudson River at the village. US Route 4 passes through the village conjoined with New York State Route 32. County Road 75, Lake Street, enters the village from the northwest.

According to U.S. Census Bureau, the village has a total area of 1.4 square miles, with 1.2 square miles of it land and 0.2 square miles (13.29-percent) of it water.

Climate

Saratoga County, with all its municipalities, generally experiences seasonable weather patterns characteristic of the northeastern U.S. Warm summers are typically experienced, with occasional high temperatures and humidity. Midsummer temperatures typically range from 60°F to 83°F (Fahrenheit). The winters of Saratoga County are long and cold, with temperatures typically ranging from 12°F to 30°F (Fahrenheit). During the winter, temperatures are cooler than the temperatures in areas located near large bodies of water. Snow accumulates to an average depth of 68.7 inches each year.

Brief History

In 1816, the community of Stillwater set itself off from the town by incorporating as a village. It was originally called Up-town, then Upton, as it was the first and for a long time the only settlement north of Waterford. Stillwater is the current historical site of "The Blockhouse" since it has been moved from Saratoga battle field. Stillwater also has other sites such as the Octagon house and the twin houses built in the late 19th century.

Governing Body Format

The Village of Stillwater is governed by four village trustees.

Growth/Development Trends

No development is anticipated at this time.

C.) NATURAL HAZARD EVENT HISTORY SPECIFIC TO THE VILLAGE

| Type of Event | FEMA Disaster # (if applicable) | Date | Preliminary Damage Assessment |
|----------------------------------|---------------------------------|---------------------|--|
| Blizzard | Not applicable | March, 1888 | Not available |
| Flood | Not applicable | March, 1913 | Not available |
| Extreme Cold | Not applicable | January, 1957 | Not available |
| Snowstorm and Extreme Cold | Not applicable | February, 1961 | \$81,000 (countywide) |
| Extreme Cold | Not applicable | January, 1968 | Not available |
| Flood (Tropical Storm Agnes) | Not applicable | June, 1972 | \$1,600,000 (countywide) |
| Flood | Not applicable | March, 1977 | Not available |
| Extreme Cold | Not applicable | February, 1979 | Not available |
| Extreme Cold | Not applicable | December, 1980 | Not available |
| Snowstorm | Not applicable | January, 1983 | \$238,000 (countywide) |
| Snowstorm | Not applicable | April, 1983 | \$238,000 (countywide) |
| Snowstorm | Not applicable | December, 1983 | \$179,000 (countywide) |
| Snowstorm | Not applicable | February, 1984 | \$238,000 (countywide) |
| Flood | Not applicable | May, 1984 | \$2,400,000 (countywide) |
| Flood | Not applicable | March, 1986 | \$1,400,000 (countywide) |
| Flood | Not applicable | August, 1986 | \$505,000 (countywide) |
| Flood | Not applicable | April, 1987 | \$2,100,000 property damage; \$208,000 crop damage; 3 injuries (countywide) |
| Severe Winter Storm | DR-801 | October, 1987 | Not available |
| Snowstorm | Not applicable | February, 1990 | \$545,000 (countywide) |
| Freezing Rain | Not applicable | March, 1991 | \$833,000 (countywide) |
| Blizzard and Extreme Cold | EM-3107 | March, 1993 | Not available |
| Extreme Cold | Not applicable | January, 1994 | Not available |
| Snowstorm | Not applicable | February, 1995 | \$500,000 (countywide) |
| Snowstorm | Not applicable | March, 1995 | \$100,000 (countywide) |
| Severe Storm and Flooding | DR-1095 | January, 1996 | \$10,000,000 (countywide) |
| Flood | Not applicable | April, 1996 | \$40,000 (countywide) |
| Severe Storms and Flooding | Not applicable | November, 1996 | \$404,000 (countywide) |
| Snowstorm | Not applicable | March / April, 1997 | \$709,000 (countywide) |
| Severe Winter Storm and Flooding | DR-1196 | January, 1998 | Between \$125,000 and \$745,000 (countywide) |
| Tornado (F3) | | May, 1998 | State of Emergency in Saratoga County; 55 homes were destroyed and 230 were damaged; \$60,000,000 in damages (all counties affected) |

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| Type of Event | FEMA Disaster # (if applicable) | Date | Preliminary Damage Assessment |
|--|---------------------------------|------------------------------|--|
| Flood | Not applicable | January, 1999 | \$40,000 (townwide); Road closures |
| Severe Storms and Flooding (Hurricane Floyd) | DR-1295 | September, 1999 | Not available |
| Flood | Not applicable | February, 2000 | \$63,000 (countywide) |
| Severe Storms | Not applicable | May/September, 2000 | \$80,000 (countywide) |
| Thunderstorm / Wind | Not applicable | June, 2000 | \$42,000 (townwide) |
| Flood | Not applicable | December, 2000 | \$190,000 (countywide) |
| Snowstorm | Not applicable | March, 2001 | Not available |
| Snowstorm | EM-3173 | December 2002 / January 2003 | Not available |
| Severe Storms, Tornado and Flooding | Not applicable | July / August 2003 | Between \$100,000 and \$160,000 (countywide) |
| Severe Storms and Flooding | DR-1534 | May / June 2004 | \$14,000,000 (statewide) |
| Severe Storms and Flooding | Not applicable | June/July, 2006 | Power outages |
| Ice Storm | Not applicable | January, 2007 | Power outages |
| Snowstorm (Valentine's Day Storm) | Not applicable | February, 2007 | Not available |

Number of FEMA Identified Repetitive Flood Loss Properties: 0

Number of FEMA Identified Severe Repetitive Flood Loss Properties: 0

Source: FEMA Region 2, November 2008



D.) NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

| Rank # | Hazard type | Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a,c} | Probability of Occurrence | Risk Ranking Score (Probability x Impact) | Hazard Ranking ^b |
|--------|--|---|---------------------------|---|-----------------------------|
| 4 | Earthquake | \$634,029 ^{c,e} | Rare | 11 | Low |
| 1 | Flood (riverine, flash, coastal and urban flooding) | \$7,131,000 ^{c,e} | Frequent | 54 | High |
| 3 | Ground Failure | Not available ^f | Occasional | 24 | Medium |
| 2 | Severe Storm (windstorms, thunderstorms, hail, lightning and tornados) | \$188,454 ^{c,d} | Frequent | 51 | High |
| 1 | Severe Winter Storm (heavy snow, blizzards, ice storms) | \$4,642,650 ^{c,d} | Frequent | 54 | High |

a. Building damage ratio estimates based on FEMA 386-2 (August 2001)

b. High = Total hazard priority risk ranking score of 31 and above

Medium = Total hazard priority risk ranking of 16-30

Low = Total hazard risk ranking below 15

c. The valuation of general building stock and loss estimates determined in Saratoga County were based on the default general building stock database provided in HAZUS-MH MR3 (RSMeans 2006).

d. Severe storm and severe winter storm hazard 500-year MRP loss estimate is structural value only; does not include the value of contents. For severe winter storm, the loss estimate is 5% of total general building stock value.

e. Loss estimates for both structure and contents (500-year MRP for the flood hazard and 2,500-year MRP for the earthquake hazard).

f. Approximately 100% of the Village's general building stock is located within the landslide hazard area, and thus vulnerable.

E.) CAPABILITY ASSESSMENT

This section identifies the following capabilities of the local jurisdiction:

- Legal and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification.

E.1) Legal and Regulatory Capability

| Regulatory Tools (Codes, Ordinances., Plans) | Local Authority (Y or N) | Prohibitions (State or Federal) (Y or N) | Higher Jurisdictional Authority (Y or N) | State Mandated (Y or N) | Code Citation (Section, Paragraph, Page Number, date of adoption) |
|---|-----------------------------|--|---|-------------------------------|---|
| 1) Building Code | Y | N | Y | N | NYS Code Regulations |
| 2) Zoning Ordinance | Y | N | N | N | Village of Stillwater Zoning Law, April 2006 |
| 3) Subdivision Ordinance | N | N | N | N | |
| 4) NFIP Flood Damage Prevention Ordinance (if you are in the NFIP, you must have this.) | Y | Y | Y | Y | Village of Stillwater Flood Plan Law |
| 5) Growth Management | N | N | N | N | |
| 6) Floodplain Management / Basin Plan | N | Y | Y | N | |
| 7) Stormwater Management Plan/Ordinance | Y | N | Y | Y | Consent Order by DEC |
| 8) Comprehensive Plan / Master Plan/ General Plan | Y | N | N | N | Comprehensive Plan, 2005 |
| 9) Capital Improvements Plan | N | N | N | N | |
| 10) Site Plan Review Requirements | Y | Y | Y | N | Under Village Zoning Law |
| 11) Open Space Plan | N | N | N | N | |
| 12) Economic Development Plan | N | N | N | N | |
| 13) Emergency Response Plan | Y | N | Y | Y | Village's Emergency Plan, Updated 2007 |
| 14) Post Disaster Recovery Plan | N | N | N | N | |
| 15) Post Disaster Recovery Ordinance | N | N | N | N | |
| 16) Real Estate Disclosure req. | N | N | N | N | |
| 17) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)] | Y | Y | Y | N | Aquifer Law, 2000; Flood Mitigation Plan (Final Draft 2002) |

E.2) Administrative and Technical Capability

| Staff/ Personnel Resources | Available (Y or N) | Department/ Agency/Position |
|--|--------------------|---|
| 1) Planner(s) or Engineer(s) with knowledge of land development and land management practices | Y | Chazen and Restner Engineers Board of Trustees |
| 2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure | Y | Chazen and Restner Engineers Board of Trustees |
| 3) Planners or engineers with an understanding of natural hazards | N | |
| 4) NFIP Floodplain Administrator (if you are in the NFIP, you must have one.) | Y | Ernest Martin – Mayor |
| 5) Surveyor(s) | N | |
| 6) Personnel skilled or trained in “GIS” applications | N | |
| 7) Scientist familiar with natural hazards in the Village of Stillwater. | N | |
| 8) Emergency Manager | Y | Mayor |
| 9) Grant Writer(s) | N | |
| 10) Staff with expertise or training in benefit/cost analysis | Y | |

E.3) Fiscal Capability

| Financial Resources | Accessible or Eligible to use (Yes/No/Don't know) |
|--|---|
| 1) Community development Block Grants (CDBG) | Yes |
| 2) Capital Improvements Project Funding | Yes |
| 3) Authority to Levy Taxes for specific purposes | Yes |
| 4) User fees for water, sewer, gas or electric service | Water and Sewer Only |
| 5) Impact Fees for homebuyers or developers of new development/homes | Yes |
| 6) Incur debt through general obligation bonds | Yes |
| 7) Incur debt through special tax bonds | No |
| 8) Incur debt through private activity bonds | No |
| 9) Withhold public expenditures in hazard-prone areas | No |
| 10) State mitigation grant programs (e.g. NYSDEC, NYCDEP) | |
| 11) Other | |

E.4) Community Classifications

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

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

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

Criteria for classification credits are outlined in the following documents:

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

F.) PROPOSED HAZARD MITIGATION INITIATIVES

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|---|--|---------------------|-----------|--|---|--|----------------|--------------------|----------|
| VST-1 | Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements including 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 1a through 1f. | New & Existing | Flood, Severe Storm | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | Municipal Engineering (NFIP Floodplain Administrator) | NYSEMO Saratoga County Office of Emergency Services | Low | Municipal Budget | |
| VST-1a | Consider the adoption of higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements). | New | Flood | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | | NYSEMO Saratoga County Office of Emergency Services | Low | Municipal Budget | |
| VST-1b | Develop and implement an enhanced public outreach/education/information program, including: (for example) develop a flood risk management webpage on the municipal website where information and mapping can be posted, include NFIP information in regular | N/A | Flood | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | | NYSEMO Saratoga County Office of Emergency Services | Low | Municipal Budget | |

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| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|---------------|--|--|----------------------|------------|--|--|---|----------------|---|----------|
| | newsletter and mailings, etc.... | | | | | | | | | |
| VST-1c | Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed. | N/A | Flood | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | | NYSEMO Saratoga County Office of Emergency Services | Low | Municipal Budget | |
| VST-1d | Have designated NFIP Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM, and consider relevant continuing education training such as FEMA Benefit-Cost Analysis. | N/A | Flood | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | | NYSEMO Saratoga County Office of Emergency Services | Low | Municipal Budget | |
| VST-1e | Continue to require and archive elevation certificates. | New & Existing | Flood | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | Municipal Engineering (NFIP Floodplain Administrator) | | Low | Municipal Budget | |
| VST-1f (SC-5) | Consider participation in the Community Rating System to further manage flood risk in the City and reduce flood insurance premiums for NFIP policyholders. This would include attendance at County sponsored NFIP-CRS information workshops during year one of the plan implementation period. | New & Existing | Flood, Coastal Storm | 1, 2, 5 | 1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2 | Municipal Engineering (NFIP Floodplain Administrator) | NYSEMO Saratoga County Office of Emergency Services | Low | City Budget | |
| VST-2a | Where appropriate, support retrofitting (e.g. elevation) of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for | Existing | Flood, Severe Storm | 1, 2, 3, 5 | 1-1, 1-2, 1-3, 2-2, 2-3, 2-4, 3-1, 3-5 | Municipality (likely through NFIP Floodplain Administrator); | NYSEMO Saratoga County Office of Emergency Services | High | FEMA Mitigation Grant Programs and local budget (or property owner) for | |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-------------|--|--|--|--------------------------------|--|----------|
| | retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding. | | | | | | | | cost share | |
| VST-2b | Where appropriate, support acquisition or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding. | Existing | Flood, Severe Storm | 1, 2, 3, 5 | 1-1, 1-2, 1-3, 2-2, 2-3, 2-4, 3-1, 3-5 | Municipality (likely through NFIP Floodplain Administrator), | NYSEMO Saratoga County Office of Emergency Services | High | FEMA Mitigation Grant Programs and local budget (or property owner) for cost share | |
| VSW-3 | Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 | New & Existing | All Hazards | 1 through 5 | All | Municipality (through mitigation planning point of contacts) | County (through Mitigation Planning Coordinator), SEMO | Low – High (for 5-year update) | Local Budget, possibly FEMA Mitigation Grant Funding for 5-year update | Ongoing |
| VSW-4 | Expand public education on ways to protect property before and during hazard events. Conduct continued public and stakeholder outreach to promote awareness of this Plan and | Existing | All | 1 through 5 | All | Municipal Administrator | | Low | Local Budget, HMA grant | Short |

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|------------|---|--|---------------------|-------------|-------------------------|---|--|----------------|-------------------------------------|---|
| | obtain ongoing public and stakeholder input. Specific activities shall include maintaining the public HMP website, media releases, maintaining copies of the plan in city hall, and may include public meetings, informational flyers, press releases, and public service announcements | | | | | | | | | |
| VSW-5 | Continue to develop, enhance, and implement existing emergency plans. | New & Existing | All Hazards | 1, 3 | 1-1, 1-7, 3-2, 3-4, 3-5 | Municipal Emergency Manager with support from County OEM and SEMO | County Emergency Management, SEMO | Low - Medium | Local Budget | Ongoing |
| VSW-6 | <p>Create/enhance/ maintain mutual aid agreements with neighboring communities.</p> <p>Possible options listed in the Comprehensive Plan include the following:</p> <p>Conduct an Intermunicipal Cooperation Roundtable to promote intermunicipal coordination and Communication</p> <p>Expand joint operations with the Sheriff's Office, State Police and Mechanicville Police to maximize results.</p> | New & Existing | All Hazards | 3, 5 | 3-4, 5-1, 5-3 | Local Emergency Management, DPW and Roads | Surrounding municipalities and County | Low - Medium | Local Budget | Ongoing |
| VSW-7 | Support County-wide initiatives identified in Section 9.1 of the County Annex. | New & Existing | All Hazards | 1 through 5 | All | Local departments (as applicable for specific | County and Regional agencies (as appropriate for | Low - High | Existing programs and grant funding | Ongoing – Long-term depending on initiative |



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| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency (initiative) | Support agencies (initiative) | Estimated Cost | Sources of Funding where applicable | Timeline |
|------------|---|--|---------------------|------------|------------------------------|--------------------------|--|----------------|-------------------------------------|----------|
| VSW-8 | Create/update the Emergency Action Plans for all dams located within the municipality. | Existing | Flood | 1, 3 | 1-1, 1-6, 1-7, 3-1, 3-2, 3-4 | Municipality | Watershed districts (if applicable); neighboring municipalities; County (if applicable); NYS | Medium to Low | FEMA HMA | DOF |
| VSW-9 | Implement dam structure repairs as required by dam safety report/protocols | Existing | Flood | 3 | 3-1, 3-3, 3-6 | Municipality | Watershed districts (if applicable); neighboring municipalities; County (if applicable); NYS | Medium | FEMA HMA | DOF |
| VSW-10 | Support the Installation/Implementation of Community Emergency Alert System | New & Existing | All Hazards | 1, 3, 5 | 1-1, 3-1, 3-3, 3-5, 3-6, 5-1 | Municipality | Watershed districts (if applicable); neighboring municipalities; County (if applicable); NYS | Medium | FEMA HMA | DOF |
| VSW-11 | Create a mitigation support fund to provide matching funds on an ongoing basis for municipality and residential mitigation projects which will fund cost-sharing portions of projects and be replenished during the annual budget cycle | New & Existing | All Hazards | 1, 2, 3, 5 | 1-3, 1-9, 2-5, 3-1, 5-2 | Municipality | | Medium | Operating budget | Short |
| VSW-12 | Develop a multi-year Capital Improvement Plan (CIP) to provide a long-term plan for infrastructure improvements. | New & Existing | All Hazards | 1, 3 | 1-1, 1-6, 3-3, 3-6 | Municipality | | Low | Local budget | |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-----------|------------------------------|--------------|------------------|----------------|--------------------|----------|
| VSW-13 | Perform a comprehensive review and evaluation of Stillwater's planning and zoning regulations <i>(Per the Comprehensive Plan)</i> | Existing | All Hazards | 1 | 1-4, 1-6, 1-7 | Municipality | | Low | Local budget | |
| VSW-14 | Conduct Needs Assessment for each of the community service providers to ensure adequate facilities and services for residents (for example, emergency services, shelters) <i>(Per the Comprehensive Plan)</i> | Existing | All Hazards | 1, 3 | 1-1, 1-4, 1-6, 3-4, 3-5, 3-6 | Municipality | | Low to Medium | Local budget | |
| VSW-15 | Use the Town's web site to better inform the public regarding the Fire/Police/EMS services <i>(Per the Comprehensive Plan)</i> | NA | All Hazards | 1, 2 | 1-6, 2-2, 2-5 | Municipality | | Low to Medium | Local budget | |
| VSW-16 | Work with the State, County, and local service providers to expand the delivery of fire safety/prevention programs <i>(Per the Comprehensive Plan)</i> | NA | All Hazards | 1, 2 | 1-6, 2-2, 2-5 | Municipality | County, NYS | Low to Medium | Local budget | |
| VSW-17 | Prepare/Update the Town stormwater management plan and focus on sub-basins where there is chronic flooding. <i>(Per FMA)</i> . | New & Existing | Flood, Severe Storm | 1 | 1-4, 1-5, 1-6, 1-7 | Municipality | | Low to Medium | Local budget | |

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|------------|--|--|---------------------|-----------|--------------------|--------------|--|----------------|--------------------|----------|
| VSW-18 | Explore potential passive recreational uses of the Old Champlain Canal and towpath via a trail system or linear park. This proposed use would serve to provide additional open space and recreational amenities locally, and would minimize impervious surfaces and promote infiltration. Further, allowing land along the Old Champlain Canal to remain undeveloped would permit periodic access to the canal for routine maintenance activities to ensure that stormwater is being effectively and safely conveyed. <i>(Per FMA)</i> | Existing | Flood, Severe Storm | 1, 4 | 1-5, 4-3, 4-4, 4-5 | Municipality | | Low to Medium | | |
| VSW-19 | Form a committee and study the chronic flooding problem of ice jams on the Hudson River in the vicinity of the lower dam (lock C-3) and make recommendations on how to alleviate this problem. This Committee should involve the Town and Village of Stillwater, the City of Mechanicville, the New York State Canal Corporation, New York State Electric and Gas, Stillwater Power, the Saratoga County Emergency Management Office and any other agencies and | New & Existing | Flood | 1, 5 | 1-4, 1-6, 5-3 | Municipality | Village of Stillwater, the City of Mechanicville, the New York State Canal Corporation, New York State Electric and Gas, Stillwater Power, the Saratoga County Emergency Management Office | Low | | |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-----------|-----------------------------------|--------------|-----------------------|--|------------------------------|----------|
| | organizations with a stake in this issue. <i>(Per FMA)</i> | | | | | | | | | |
| VSW-20 | Increase public education on flooding. Town and Village can hold a joint workshop on the causes of flooding, the availability of flood insurance and specific techniques for flood proofing property. This workshop could also focus on the value and function of wetlands as a whole, and specifically, their role in mitigating flooding. Further, the Town may wish to consider developing an educational brochure on flooding and its mitigation. Alternatively, such a topic could be incorporated within a Town newsletter. <i>(Per FMA)</i> | NA | Flood | 1, 2 | 1-4, 1-6, 2-1, 2-2, 2-3, 2-4, 2-5 | Municipality | Village of Stillwater | Low to Medium Dependant on initiative | FEMA HMA; local budget | |
| VSW-21 | Amend the Town zoning ordinance and Village site development law to: a) require stormwater analysis and mitigation for development and land clearing of a certain size, and b) to require erosion and sediment control. The latter has already been proposed in the draft update to the Town's zoning ordinance. <i>(Per FMA)</i> | New & Existing | Flood, Severe Storm | 1, 4 | 1-6, 1-8, 4-2, 4-4 | Municipality | | Low | Local budget | Short |
| VSW-22 | Undertake a feasibility study to examine the possibility of establishing a trail or linear park along the Old Champlain Canal. <i>(Per FMA)</i> | NA | NA | 4 | 4-2, 4-3 | Municipality | | Low | Local budget | Medium |
| VSW-23 | Incorporate engineering and maintenance items related to | Existing | Flood | 1 | 1-1, 1-6, 1-7 | Municipality | | Low | Local budget | On-going |

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|------------|---|--|---------------------|-----------|----------------|--------------|---------------------|--|--------------------|----------|
| | flood prevention and mitigation in capital improvements and budget planning. <i>(Per FMA)</i> | | | | | | | | | |
| VSW-24 | Charge the Stillwater Grants Committee with the task of securing funding to implement the recommendations of the FMA. <i>(Per FMA)</i> | Existing | Flood | 1 | 1-7, 1-9 | Municipality | | Low | Local budget | Short |
| VSW-25 | Pursue riverbank stabilization and erosion and sedimentation control projects at problem locations within the Hudson Riverfront Area. <i>(Per FMA)</i> | Existing | Flood | 1, 4 | 1-1, 4-2 | Municipality | NYS (if applicable) | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-26 | Provide tributary stream channel and bank improvement projects at problem locations within the Hudson Riverfront Area. <i>(Per FMA)</i> | Existing | Flood | 1, 4 | 1-1, 4-2 | Municipality | NYS (if applicable) | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-27 | Conduct long-term inspection and maintenance programs within the Hudson Riverfront Area. <i>(Per FMA)</i> | Existing | Flood | 1, 4 | 1-1, 1-4, 4-2 | Municipality | NYS (if applicable) | Medium Dependant on initiative | FEMA HMA | |
| VSW-28 | Provide channel and embankment improvement projects for the Old Champlain Canal and Schuyler Creek to develop adequate and stable channel cross-sections to convey storm flows. Projects should include construction of access ways, clearing of overgrowth, removal of accumulated sediment and debris from channel, establish channel lines and grades, bank stabilization, sediment and erosion control measures and reinforcement of banks to | Existing | Flood | 1, 4 | 1-1, 4-2 | Municipality | NYS (if applicable) | Medium-High Dependant on initiative | FEMA HMA | |

SECTION 9.27: VILLAGE OF STILLWATER

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-----------|----------------|--------------|---------------------|--|--------------------|----------|
| | prevent overtopping and breaching. <i>(Per FMA)</i> | | | | | | | | | |
| VSW-29 | Improve/upgrade and increase capacity of the storm sewer infrastructure on Lake Street and Park Avenue to convey floodwaters to Schuylers Creek. <i>(Per FMA)</i> | Existing | Flood | 1, 3 | 1-1, 3-6 | Municipality | | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-30 | Evaluate the effect of the existing private wooden bridge on channel capacity and flooding. Remove or replace bridge to provide a greater channel cross-section if indicated by evaluation (NYS RT 67, Meadow Lane, Anthony Kill Area). <i>(Per FMA)</i> | Existing | Flood | 1 | 1-1, 1-4, 1-5 | Municipality | | Medium-High Dependant on initiative | | |
| VSW-31 | Provide stream channel improvement projects along the Anthony Kill in the Town of Stillwater. Projects should include construction of access ways, removal of accumulated sediment and debris from channel, establish channel lines and grades, bank stabilization and sediment and erosion control measures. <i>(Per FMA)</i> | Existing | Flood | 1, 4 | 1-1, 4-2 | Municipality | NYS (if applicable) | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-32 | Maintain and improve (increase conveyance) channel for the existing drainage ditch along its 2,500-foot length from Stratton Lane north to its confluence with the Hudson River, possibly in partnership with NYSDOT for capacity improvements to | Existing | Flood | 1, 3 | 1-1, 3-6 | Municipality | NYSDOT | Medium-High Dependant on initiative | FEMA HMA | |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-----------|----------------|--------------|------------------|--|--------------------|----------|
| | culvert crossing under NYS RTS 4 & 32. (Per FMA) | | | | | | | | | |
| VSW-33 | Provide channel maintenance and improvement projects for the Old Champlain Canal along its 5,200-foot length from Stratton Lane north to where it passes under RTS 4 & 32 through two large concrete box culvert Projects should include construction of access ways, clearing of overgrowth, removal of accumulated sediment and debris from channel, establish channel lines and grades, bank stabilization, sediment and erosion control measures, reinforcement of banks to prevent overtopping and breaching. Planning for these drainage projects should be coordinated with plans for future recreational development of the Old Champlain Canal and parallel towpath, and wetlands preservation considerations. (Per FMA) | New & Existing | Flood | 1, 4 | 1-1, 4-2 | Municipality | | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-34 | Provide lakeshore stabilization and erosion and sedimentation control projects at problem locations on Saratoga Lake. (Per FMA) | Existing | Flood | 1, 4 | 1-1, 4-1, 4-2 | Municipality | | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-35 | Provide tributary stream channel and bank improvement projects at problem locations in the | Existing | Flood | 1, 4 | 1-1, 4-1, 4-2 | Municipality | | Medium-High Dependant | FEMA HMA | |

SECTION 9.27: VILLAGE OF STILLWATER

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-----------|----------------|--------------|------------------|--|--------------------|----------|
| | Saratoga Lake area. <i>(Per FMA)</i> | | | | | | | on initiative | | |
| VSW-36 | Provide channel improvements along the Old Champlain Canal drainage way just north of the railroad embankment in the Riverside area to control ice formation by eliminating standing water. <i>(Per FMA)</i> | Existing | Flood | 1, 4 | 1-1, 4-1, 4-2 | Municipality | | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-37 | Provide channel improvement projects for the Old Champlain Canal along its 5,800 feet from Halfway House Road south to its confluence with the Hudson River. Projects should include construction of access ways, clearing of overgrowth, removal of accumulated sediment and debris from channel, establish channel lines and grades, bank stabilization, sediment and erosion control measures and reinforcement of banks to prevent overtopping and breaching. <i>(Per FMA)</i> | Existing | Flood | 1, 4 | 1-1, 4-1, 4-2 | Municipality | | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-38 | Evaluate installation of a culvert crossing River Road (NYS RTS 4 & 32) to convey overflow from the Old Champlain Canal to the Hudson River just north of the railroad embankment at the Iron Bridge. <i>(Per FMA)</i> | Existing | Flood | 1, 3 | 1-1, 3-6 | Municipality | | Medium-High Dependant on initiative | FEMA HMA | |
| VSW-39 | Evaluate installation of a culvert crossing under Burns | Existing | Flood | 1, 3 | 1-1, 3-6 | Municipality | | Medium-High | FEMA HMA | |

| Initiative | Mitigation Initiative | Applies to New and/or Existing Structures* | Hazard(s) Mitigated | Goals Met | Objectives Met | Lead Agency | Support agencies | Estimated Cost | Sources of Funding | Timeline |
|------------|--|--|---------------------|-----------|----------------|-------------|------------------|-------------------------|--------------------|----------|
| | Bridge Road, Towpath Road and Hudson Avenue (NYS RTS 4 & 32) directly to the Hudson River. The proposed culvert would convey stormwater flow from the southern end of the Gurba Subdivision drainage-way east to the river. A culvert in this location would also serve to relieve downstream flooding on Halfway House Road, Mitchell Road and in the Riverside Area. <i>(Per FMA)</i> | | | | | | | Dependant on initiative | | |

Notes: Short term = 1 to 5 years. Long Term= 5 years or greater. OG = On going program. DOF = Depending on funding. PDM = Pre-Disaster Mitigation Grant Program.

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure?

G.) ANALYSIS OF MITIGATION ACTIONS

This table summarizes the participant's mitigation actions by hazard of concern and the six mitigation types to illustrate that the Village has selected a comprehensive range of actions/projects.

| Hazard of Concern | Mitigation Type | | | | | |
|---|--|--|-----------------------------------|--|--|------------------------|
| | 1. Prevention | 2. Property Protection | 3. Public Education and Awareness | 4. Natural Resource Protection | 5. Emergency Services | 6. Structural Projects |
| Earthquake | VSW-3, VSW-4, VSW-7, VSW-11-16 | VSW-3, VSW-7 | VSW-3, VSW-7 | VSW-3, VSW-7 | VSW-3, VSW-5, VSW-6, VSW-7, VSW-10 | VSW-3, VSW-7 |
| Flooding (riverine, flash, coastal and urban flooding) | VSW-2, VSW-3, VSW-4, VSW-7, VSW-8, VSW-11-19, VSW-21, VSW-23, VSW-24, VSW-38, VSW-39 | VSW-1, VSW-2, VSW-3, VSW-4, VSW-7, VSW-25-26, VSW-28-33, VSW-36-37 | VSW-1, VSW-2, VSW-3, VSW-4, VSW-7 | VSW-3, VSW-7, VSW-25-28, VSW-31, VSW-33, VSW-34-37 | VSW-2, VSW-3, VSW-5, VSW-6, VSW-7, VSW-8, VSW-10 | VSW-3, VSW-7, VSW-9 |
| Ground Failure | VSW-3, VSW-4, VSW-7, VSW-11-16 | VSW-3, VSW-7 | VSW-3, VSW-7 | VSW-3, VSW-7 | VSW-3, VSW-5, VSW-6, VSW-7, VSW-10 | VSW-3, VSW-7 |
| Severe Storms (windstorms, thunderstorms, hail, lightning and tornados) | VSW-2, VSW-3, VSW-4, VSW-7, VSW-11-8, VSW-21 | VSW-1, VSW-2, VSW-3, VSW-4, VSW-7 | VSW-1, VSW-2, VSW-3, VSW-4, VSW-7 | VSW-3, VSW-7 | VSW-2, VSW-3, VSW-5, VSW-6, VSW-7, VSW-10 | VSW-3, VSW-7 |
| Severe Winter Storm (heavy snow, blizzards, ice storms) | VSW-3, VSW-4, VSW-7, VSW-11-16 | VSW-3, VSW-7 | VSW-3, VSW-7 | VSW-3, VSW-7 | VSW-3, VSW-5, VSW-6, VSW-7, VSW-10 | VSW-3, VSW-7 |

Notes:

- 1. Prevention:** Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- 2. Property Protection:** 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.
- 3. Public Education and Awareness:** Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
- 4. Natural Resource Protection:** Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- 5. 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.
- 6. 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.

H.) PRIORITIZATION OF MITIGATION INITIATIVES

| Initiative # | # of Objectives Met | Benefits | Costs | Do Benefits equal or exceed Costs? (Yes or No) | Is project Grant eligible? (Yes or No) | Can Project be funded under existing programs/budgets? (Yes or No) | Priority (High, Med., Low) |
|--------------|---------------------|----------|-------|---|---|---|-------------------------------|
| VSW-1 | 8 | M | M | Y | N | Y | M-H |
| VSW-2 | 8 | H | H | Y | N | N | M-H* |
| VSW-3 | 28 | M | M | Y | N (Yes for 5 year update) | Y | H |
| VSW-4 | 35 | L | L | Y | N | Y | H |
| VSW-5 | 5 | M | L | Y | N | Y | M |
| VSW-6 | 35 | M | L | Y | N | Y | H |
| VSW-7 | 28 | H | L-M | Y | Dependant on specific initiative | Dependant on specific initiative | M-H (dependant) |
| VSW-8 | 6 | M | M-L | Y | Y | Y (local match) | M |
| VSW-9 | 3 | M | M | Y | Y | Y (local match) | M |
| VSW-10 | 6 | M | M | Y | Y | Y (local match) | M |
| VSW-11 | 6 | M | M | Y | N | Y | H |
| VSW-12 | 4 | M | L | Y | N | Y | M |
| VSW-13 | 3 | L | L | Y | N | Y | M |
| VSW-14 | 6 | M | L-M | Y | N | Y (local match) | M |
| VSW-15 | 3 | M | L-M | Y | N | Y | M |
| VSW-16 | 3 | M | L-M | Y | N | Y | M |
| VSW-17 | 4 | M | L-M | Y | N | Y | M |
| VSW-18 | 4 | M | L-M | Y | Dependant on specific initiative | Dependant on specific initiative | M-H (dependant) |
| VSW-19 | 3 | L | L | Y | N | Y | M |
| VSW-20 | 6 | M | L-M | Y | Y | Y (local match) | M |
| VSW-21 | 4 | M | L | Y | N | Y | M |
| VSW-22 | 2 | L | L | Y | N | Y | M |
| VSW-23 | 3 | M | L | Y | Dependant on specific initiative | Dependant on specific initiative | M-H (dependant) |
| VSW-24 | 2 | M | L | Y | N | Y | M |
| VSW-25 | 2 | H | M-H | Y | Y | Y (local match) | M |
| VSW-26 | 2 | H | M-H | Y | Y | Y (local match) | M |
| VSW-27 | 3 | M | M | Y | Y | Y (local match) | M |

| Initiative # | # of Objectives Met | Benefits | Costs | Do Benefits equal or exceed Costs? (Yes or No) | Is project Grant eligible? (Yes or No) | Can Project be funded under existing programs/budgets? (Yes or No) | Priority (High, Med., Low) |
|--------------|---------------------|----------|-------|---|---|---|-------------------------------|
| VSW-28 | 2 | H | M-H | Y | Y | Y (local match) | M |
| VSW-29 | 2 | H | M-H | Y | Y | Y (local match) | M |
| VSW-30 | 3 | M | M | Y | Y | Y (local match) | M |
| VSW-31 | 2 | M | M | Y | Y | Y (local match) | M |
| VSW-32 | 2 | M | M | Y | Y | Y (local match) | M |
| VSW-33 | 2 | M | M | Y | Y | Y (local match) | M |
| VSW-34 | 3 | M | M | Y | Y | Y (local match) | M |
| VSW-35 | 3 | M | M | Y | Y | Y (local match) | M |
| VSW-36 | 3 | M | M | Y | Y | Y (local match) | M |
| VSW-37 | 3 | M | M | Y | Y | Y (local match) | M |
| VSW-38 | 2 | M | M | Y | Y | Y (local match) | M |
| VSW-39 | 2 | M | M | Y | Y | Y (local match) | M |

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

*This initiative has a Medium priority based on the prioritization scheme used in this planning process (implementation based on grant funding), however it is recognized that addressing repetitive and severe repetitive loss properties is considered a high priority by FEMA and SEMO (as expressed in the State HMP), and thus shall be considered a High priority for all participants in the planning process.

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

*This initiative has a Medium priority based on the prioritization scheme used in this planning process (implementation based on grant funding), however it is recognized that addressing repetitive and severe repetitive loss properties is considered a high priority by FEMA and SEMO (as expressed in the State HMP), and thus shall be considered a High priority for all participants in the planning process.

Explanation of Priorities

- **High Priority** - A project that meets multiple objectives (i.e., multiple hazards), benefits exceeds cost, has funding secured or is an on-going project and project meets eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation Grant Program (PDM) programs. High priority projects can be completed in the short term (1 to 5 years).
- **Medium Priority** - A project that meets goals and objectives, benefits exceeds costs, funding has not been secured but project is grant eligible under, HMGP, PDM or other grant programs. Project can be completed in the short term, once funding is completed. Medium priority projects will become high priority projects once funding is secured.

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

Prioritization of initiatives was based on above definitions: Yes

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

I.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

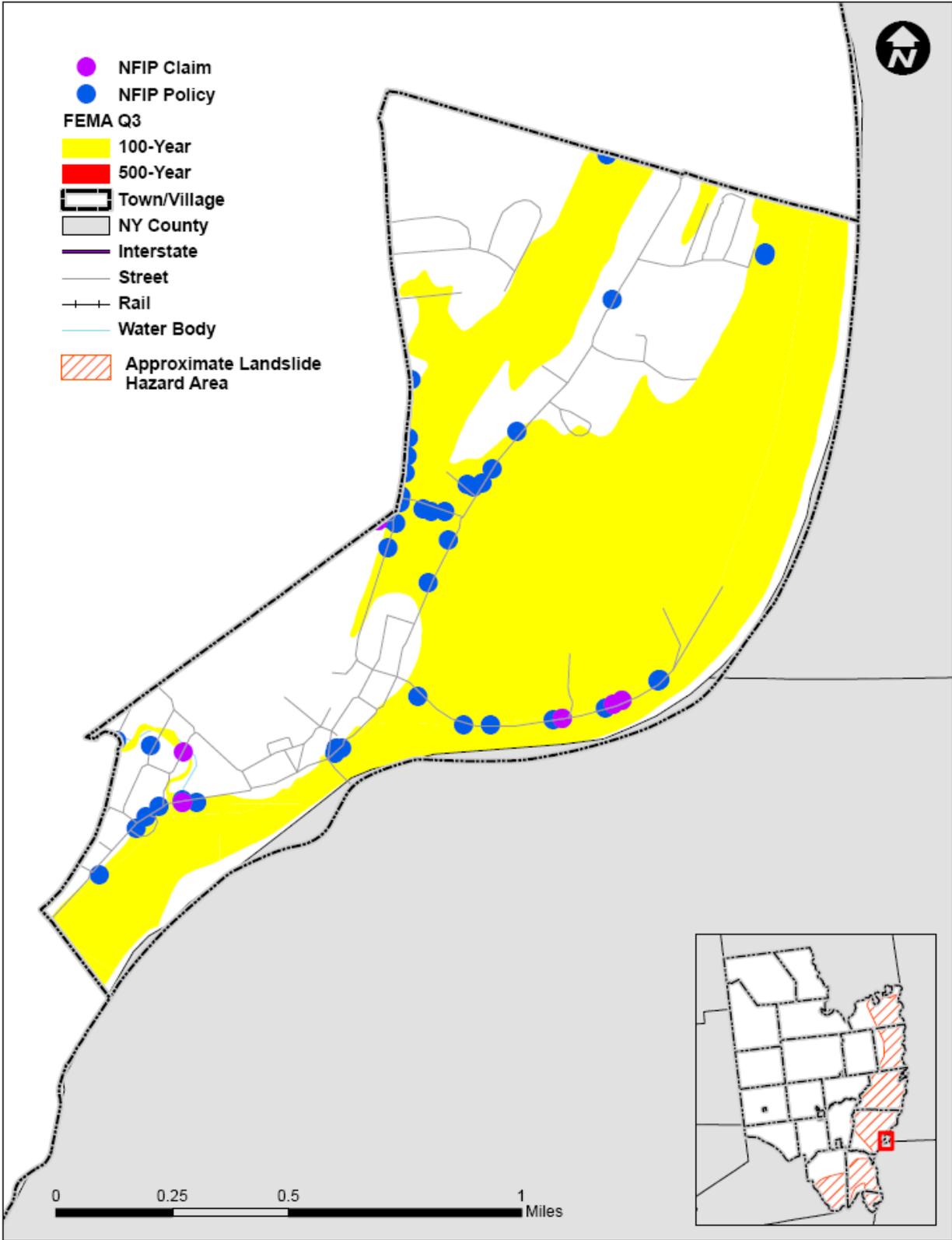
None at this time.

J.) HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map has been generated and is provided below for the Village of Camillus to illustrate the probable areas impacted within the Village. This map is based on the best available data at the time of the preparation of this Plan, and is considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Camillus has significant exposure. The County maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan.

K.) ADDITIONAL COMMENTS

No additional comments at this time.



Sources: FEMA Q3; FEMA Region II, 2008; HAZUS-MH MR3; NYSDPC, 2008

Notes: NFIP = National Flood Insurance Program

The entire municipality is vulnerable to the following hazards: earthquake, severe storm, and severe winter storm.