



## 9.2 Village of Cold Spring

This section presents the jurisdictional annex for the Village of Cold Spring. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Cold Spring’s risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

### 9.2.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Cold Spring’s hazard mitigation plan primary and alternate points of contact.

**Table 9.2-1. Hazard Mitigation Planning Team**

| Primary Point of Contact  | Alternate Point of Contact  |
|---|---|
| Name/Title: Dave Merandy, Mayor<br>Address: 85 Main St., Cold Spring, NY<br>Phone Number: 845-265-3611 ext. 5<br>Email: <a href="mailto:mayor@coldspringny.gov">mayor@coldspringny.gov</a>  | Name/Title: Jeff Vidakovich, Village Clerk<br>Address: 85 Main St., Cold Spring, NY<br>Phone Number: 845-265-3611 ext. 1<br>Email: <a href="mailto:vsclerk@coldspringny.gov">vsclerk@coldspringny.gov</a> |
| NFIP Floodplain Administrator   |   |
| Name/Title: Charlotte Mountain, Code Enforcement Officer<br>Address: 85 Main Street, Cold Spring, NY 10516<br>Phone Number: (845) 265-3611 x 4<br>Email: <a href="mailto:building@coldspringny.gov">building@coldspringny.gov</a> |   |

### 9.2.2 Municipal Profile

As early as the 1600s, the Hudson River was used as a major watercourse by Native Americans and continued to be a main mode of travel and transport until the nineteenth century. In addition, Cold Spring’s proximity to what is now Fahnstock State Park provided a cheap source of lumber and iron ore. Margaret’s Brook, a small creek located to the west of Route 9D which runs into the Hudson River, supplied hydro-power to the West Point Foundry, which helped propel Cold Spring from a tiny hamlet into a bustling village. Even the name of Cold Spring is linked to a natural resource. Myth has it that George Washington drank from a local spring and declared it to be refreshingly cold.

The first settler of Cold Spring was Thomas Davenport in 1730. A small trading hamlet grew alongside the river by the early 1800s, and in 1818, Gouverneur Kemble and others established the West Point Foundry. It became one of the major industrial sites in the United States and provided munitions (including the famed Parrott gun) for the Union Army during the Civil War. With the influx of workers at the Foundry, local housing, businesses and churches increased, and Cold Spring was incorporated as a village in 1846. During the last half of the nineteenth century, Cold Spring was a magnet for artists, writers and prominent families, all attracted to the extraordinary beauty of the Highlands. Great mansions were built along Morris Avenue, including Undercliff, the home of George Pope Morris, and Craigside, the home of Julia and Daniel Butterfield. After the Foundry closed in 1911, Cold Spring’s prominence faded; however, following World II, a rebirth began with an influx of businesses into the Hudson River Valley and commuters to New York City. In 1973, the Village was designated a Federal Historic District, and tourists have been visiting Cold Spring’s historic sites, shops, restaurants and hiking trails ever since.



Through the changing times since 1973, the Village of Cold Spring has been unique among the Hudson River communities in retaining its fundamental character. This is largely due to the steadfast loyalty of Cold Spring residents and their ingenuity in adapting to the needs of the present while carefully preserving their heritage and way of life.

The Mayor and four Trustees form the main governing body that is the Village Board. These officials are elected to their part-time positions for a two year term and are responsible for balancing the Village budget, enacting local laws and adopting municipal policies. Additionally, the Mayor and the Board of Trustees are responsible for appointing members to the Village Planning Board, Zoning Board of Appeals, Historic District Review Board, Recreation Board and any special advisory boards. Elections for the Mayor and Board of Trustees are held in March for terms that have expired.

The Village is located in western Putnam County, along the Hudson River, surrounded by the Town of Philipstown to the north and south, and the Village of Nelsonville to the east. It has a total area of 0.60 square miles, of which 0.59 square miles is land and 0.01 square miles is water.

According to the 2010 U.S. Census, the population of the Village of Cold Spring was 2,013.

### 9.2.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.2-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.2-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.2-2. Recent and Expected Future Development**

| Type of Development   | 2014                |   | 2015         |   | 2016         |                       | 2017         |                                     | 2018         |                    |
|---|---------------------|---|--------------|---|--------------|-----------------------|--------------|-------------------------------------|--------------|--------------------|
| <b>Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)</b> |                     |   |              |   |              |                       |              |                                     |              |                    |
|   | <b>Total</b>        | <b>Within SFHA</b>  | <b>Total</b> | <b>Within SFHA</b>                      | <b>Total</b> | <b>Within SFHA</b>    | <b>Total</b> | <b>Within SFHA</b>                  | <b>Total</b> | <b>Within SFHA</b> |
| Single Family   |                     |   |              |   |              |                       |              |                                     |              |                    |
| Multi-Family  |                     |   |              |   |              |                       |              |                                     |              |                    |
| Other (commercial, mixed-use, etc.)   |                     |   |              |   |              |                       |              |                                     |              |                    |
| Total   |                     |   |              |   |              |                       |              |                                     |              |                    |
| Property or Development Name  | Type of Development | # of Units / Structures   |              | Location (address and/or block and lot) |              | Known Hazard Zone(s)* |              | Description / Status of Development |              |                    |
| <b>Recent Major Development and Infrastructure from 2015 to Present</b>   |                     |   |              |   |              |                       |              |                                     |              |                    |
| Butterfield Redevelopment   | Mixed Use           | Redevelopment of site incl. 15,000 sq. ft. office/retail building, 55 market-rate condo-units (senior housing) with 1 |              | 49.5-3-45                               |              | Wildfire Interface    |              |                                     |              |                    |



| Type of Development   | 2014 | 2015  | 2016 | 2017 | 2018 |
|---|------|---|------|------|------|
|   |      | superintendent unit, and construction of resident community center. Lahey Pavilion, 11,500 sq. ft. building, to continue use as medical |      |      |      |
| <b>Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years</b> |      |   |      |      |      |
|   |      |   |      |      |      |
|   |      |   |      |      |      |

SFHA Special Flood Hazard Area (1% flood event)  
 \* Only location-specific hazard zones or vulnerabilities identified.

### 9.2.4 Capability Assessment

The Village of Cold Spring performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.2.4). The Village of Cold Spring identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

#### Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Cold Spring and where hazard mitigation has been integrated.

**Table 9.2-3. Planning, Legal, and Regulatory Capability**

| Does your municipality have this? (Yes/No) | Code Citation and Date (code chapter, name, date, link) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Have aspects of this been integrated into your mitigation plan?<br>If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) |
|--|---|---|---------------------------------|----------------|---|
|  |   |   |                                 |                |   |



|   | Does your municipality have this? (Yes/No) | Code Citation and Date (code chapter, name, date, link) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Have aspects of this been integrated into your mitigation plan?<br>If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) |    |
|---|--|---|---|---------------------------------|----------------|---|----|
| <b>Codes, Ordinances, &amp; Requirements</b>  |  |   |   |                                 |                |   |    |
| Building Code   | Yes  | The Uniform Code (19 NYCRR Parts 1219 to 1229)          | Local and State                           | Building Inspector              | Yes            | NA  | NA |
| <p><i>Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017). Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.</i></p>   |  |   |   |                                 |                |   |    |
| Zoning Code   | Yes  | Chapter 134   | Local                                     | Zoning Board of Appeals         | No             | No  | No |
| <p><b>Comment:</b> Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan"11 or "in accordance with a comprehensive plan."12 Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level</p> <ul style="list-style-type: none"> <li>Chapter 134, Zoning adopted 03-07-67 with subsequent amendments. This Chapter is adopted for the purposes set forth in § 7-704 of Article 71 of the Village Law and in the interest of the protection and promotion of the public health, safety and welfare. It shall be deemed also to specifically include the following purposes;</li> <li>A. To recognize that the land within the confines of the Village of Cold Spring has been largely developed, but that the remaining vacant land, if improperly controlled, could drastically alter the character of the community to the detriment of all people residing therein. B. To recognize that the capacity of the sewer and water systems is limited and that uncontrolled building would impose an intolerable burden upon said public facilities. C. To recognize that the traffic capacity of village streets is limited and that proper control of parking and traffic is of paramount importance for adequate transportation and safety from fire and public dangers. D. To recognize that the Village of Cold Spring is situated in a location of unique beauty and that all planning and zoning must have as one of its goals the development of a village that will blend and harmonize with the surrounding countryside, thereby making a more pleasant, relaxed and healthful community for all. E. To recognize that while the Village of Cold Spring is primarily a residential community, provision also must be made for business and industry.</li> <li>Any use, which is noxious or offensive by reason of emission of odor, dust, noise, smoke, gas, fumes or radiation or which presents a hazard to public health or safety is prohibited.</li> </ul> |  |   |   |                                 |                |   |    |
| Subdivision Regulations   | Yes  | Chapter 111   | Local                                     | Zoning Board of Appeals         | No             | Yes   | NA |
| <p><b>Comment:</b> Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 &amp; 33, Town Law s. 276 &amp; 277, Village Law s. 7-728 &amp; 7-730).</p> <ul style="list-style-type: none"> <li>Chapter 111, Subdivision of Land, approved 01-25-72 with subsequent amendments. It is declared to be the policy of the Planning Board to consider land subdivision plats as part of a plan for the orderly, efficient and economical development of the village. This means, among other things, that land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace and that proper provision shall be made for drainage, water supply, sewerage and other needed improvements.</li> <li>Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace.</li> <li>The subdivider may be required by the Planning Board to carry away by pipe or open ditch, suitably landscaped, any spring or surface water that may exist either previous to or as a result of the subdivision.</li> <li>Land subject to flooding or land deemed by the Planning Board to be uninhabitable shall not be platted for residential occupancy nor for such other uses as may increase danger to health, life or property or aggravate the flood hazard, but such land within the plat shall be set aside for such uses as shall not be endangered by periodic or occasional inundation or shall be improved in a manner satisfactory to the Planning Board to remedy said hazardous conditions.</li> </ul>   |  |   |   |                                 |                |   |    |
| Stormwater Management Regulations   | Yes  | Title 6, Ch. X,17-7,8,70                                | Local                                     |                                 | Yes            |   |    |
| <p><b>Comment:</b> Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a</p>  |  |   |   |                                 |                |   |    |



|   | Does your municipality have this? (Yes/No) | Code Citation and Date (code chapter, name, date, link)                                      | Authority (local, county, state, federal) | Department / Agency Responsible                                       | State Mandated  | Have aspects of this been integrated into your mitigation plan?<br>If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) |    |
|---|--|--|---|---|---|---|----|
| <i>larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department</i>  |  |  |   |   |   |   |    |
| Post-Disaster Recovery Plan or Regulation   |  |  | Local                                     |   | No  |   |    |
| <b>Comment:</b>   |  |  |   |   |   |   |    |
| Real Estate Disclosure  | Yes  | Property Condition Disclosure Act, NY Code - Article 14 §460-467                             | State                                     | NYS Department of State, Real Estate Agent                            | Yes   | NA  | NA |
| <b>Comment:</b> <i>In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.</i>   |  |  |   |   |   |   |    |
| Growth Management Regulation  |  |  | Local                                     | Local Planning Board  | No  |   |    |
| <b>Comment:</b> <i>In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.</i>   |  |  |   |   |   |   |    |
| Site Plan Review  | Yes  | General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a                            | Local                                     | Zoning Board of Appeals   | No  |   |    |
| <b>Comment:</b> <i>The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.</i>   |  |  |   |   |   |   |    |
| Environmental Protection  | Yes  | Title 6 NYCRR Part 617   | State                                     |   | Yes   | NA  | NA |
| <b>Comment:</b> <i>New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019</i>   |  |  |   |   |   |   |    |
| Flood Damage Prevention Law   | Yes  | Chapter 52 Federal Participation in the NFIP State: Community Risk and Resiliency Act (CRRA) | Local, State, Federal                     | Historically supported through Town of Philipstown Building Inspector | Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential) | Yes   | NA |
| <p><b>Comment:</b> <i>A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</i></p> <ul style="list-style-type: none"> <li><i>Chapter 52, Floodplain Management, adopted 01-28-13 with subsequent amendments. The Board of Trustees of the Village of Cold Spring finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Cold Spring and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life</i></li> <li><i>It is the purpose of this chapter to;</i> <ol style="list-style-type: none"> <li><i>regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;</i></li> <li><i>require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;</i></li> <li><i>control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;</i></li> <li><i>control filling, grading, dredging and other development which may increase erosion or flood damages;</i></li> <li><i>regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands, and;</i></li> <li><i>qualify and maintain for participation in the National Flood Insurance Program.</i></li> </ol> </li> <li><i>The Building Inspector is hereby appointed Local Administrator to administer and implement this chapter by granting or denying</i></li> </ul> |  |  |   |   |   |   |    |





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|---|--|---|---|---|----------------|---|----|
| <p><i>floodplain development permits in accordance with its provisions.</i></p> <ul style="list-style-type: none"> <li><i>A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding.</i></li> <li><i>The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and (3) Adequate drainage shall be provided to reduce exposure to flood damage.</i></li> <li><i>The following standards apply to new and substantially improved residential structures located in areas of special flood hazard; Within Zones A1-A30, AE and AH and also Zone A if base flood elevation data are available, new construction and substantial improvements shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation.</i></li> <li><i>The following standards apply to new and substantially improved commercial, industrial and other non-residential structures located in areas of special flood hazard; Within Zones A1-A30, AE and AH, and also Zone A if base flood elevation data are available, new construction and substantial improvements of any non-residential structure shall either:</i> <ul style="list-style-type: none"> <li><i>(a) have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or</i></li> <li><i>(b) be floodproofed so that the structure is watertight below two feet above the base flood elevation, including attendant utility and sanitary facilities, with walls substantially impermeable to the passage of water.</i></li> </ul> </li> </ul> |  |   |   |   |                |   |    |
| Municipal Separate Storm Sewer System (MS4) Regulation  | Yes  | EPA Phase II Stormwater Rule  | Federal                                   |   | Yes            |   |    |
| <p><b>Comment:</b> This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.</p>  |  |   |   |   |                |   |    |
| Emergency Management  | Yes  | NYS Executive Law, Article 2B.  | Local                                     | Local OEM   | Yes            | NA  | NA |
| <p><b>Comment:</b> The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.</p>  |  |   |   |   |                |   |    |
| Climate Adaptation  |  | NYS Executive Law, Article 75   | Local                                     |   | Yes            |   |    |
| <p><b>Comment:</b> The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.</p>   |  |   |   |   |                |   |    |
| Disaster Recovery Ordinance   |  |   | Local                                     |   | No             |   |    |
| <p><b>Comment:</b></p>  |  |   |   |   |                |   |    |
| Disaster Reconstruction Ordinance   |  |   | Local                                     |   | No             |   |    |
| <p><b>Comment:</b></p>  |  |   |   |   |                |   |    |
| Other Applicable Codes, Ordinances, & Requirements  |  |   |   |   |                |   |    |
| <p><b>Comment:</b></p>  |  |   |   |   |                |   |    |
| <p><b>Planning Documents</b></p>  |  |   |   |   |                |   |    |
| Comprehensive Plan  | Yes  | December 2011, adopted January 2012<br><br>General City Law section 28a(3)(a);<br>Town Law section 272-a(2)(a); | Local, County                             | Comprehensive Plan / LWRP<br>Special Bard;<br>Village Board | No             | Yes   | NA |



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|---|--|--|---|---------------------------------|----------------|---|
|   |  | Village Law section 7-722(2)(a)  |   |                                 |                |   |
| <p><b>Comment:</b> Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level</p> <ul style="list-style-type: none"> <li>Village of Cold Spring Comprehensive Plan, adopted 01-10-12. The Goals of the Plan are as follow; Goal 1: Preserve and enhance the small town, historic, neighborly, diverse and safe character of Village life. Goal 2: Take full advantage of our location on the Hudson River. Goal 3: Protect the natural environment and conserve energy. Goal 4: Enhance the economic vitality of the Village. Goal 5: Ensure that community facilities and services meet the Village's needs and are efficient and affordable. Goal 6: Control property taxes. Goal 7: Integrate new development with the traditional Village.</li> <li>Among the Plan's drainage and flooding recommendation are to; Address flooding and erosion issues of Back Brook especially in the Garden/Church Street and Spring Brook areas, and enhance landscaping of its banks; Consider floodplain protection measures, and ensure that residents are informed of any changes in the Federal Emergency Management Agency (FEMA) insurance floodplain map that may affect their properties; Clarify ownership and Village access of lands adjacent to Back Brook and Foundry Brook for reasons of flooding and maintaining adequate storm water flow; Complete and implement plans for correcting drainage problems where such problems exist, including on lower Main Street, Mayor's Park, Benedict Avenue, Marion Avenue, Wall Street, Mountain Avenue, and Craigside Drive / Northern Avenue; and Encourage use of rain barrels (covered for safety and health reasons), planting of street trees and rain gardens, and a reduction of impervious surfaces throughout the Village to reduce storm water runoff and sewer inflow and infiltration.</li> </ul> |  |  |   |                                 |                |   |
| Capital Improvement Plan  | No   | General Municipal Law Section 99-g.  | Local                                     |                                 | No             |   |
| <p><b>Comment:</b> A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.</p>  |  |  |   |                                 |                |   |
| Disaster Debris Management Plan   |  | -  | Local                                     |                                 | No             |   |
| <p><b>Comment:</b> Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.</p>  |  |  |   |                                 |                |   |
| Floodplain or Watershed Plan  | No   | -  | Local                                     |                                 | No             |   |
| <p><b>Comment:</b> The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.</p>   |  |  |   |                                 |                |   |
| Stormwater Plan   | Yes  | -  | Local                                     |                                 | No             |   |
| <p><b>Comment:</b> Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.</p>   |  |  |   |                                 |                |   |
| Open Space Plan   |  | NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7) | Local                                     |                                 | Yes            |   |
| <p><b>Comment:</b> Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.</p>   |  |  |   |                                 |                |   |
| Urban Water Management Plan   |  |  | Local                                     |                                 | No             |   |
| <p><b>Comment:</b></p>  |  |  |   |                                 |                |   |
| Habitat Conservation Plan   |  |  | Local                                     |                                 | No             |   |
| <p><b>Comment:</b> Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.</p>  |  |  |   |                                 |                |   |
| Economic Development Plan   |  |  | Local                                     |                                 | No             |   |



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|--|--|---|---|---------------------------------|----------------|---|----|
| <b>Comment:</b> An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.  |  |   |   |                                 |                |   |    |
| Shoreline Management Plan  | No   | Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations | Local                                     | -                               | Yes            | NA  | NA |
| <b>Comment:</b> Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations  |  |   |   |                                 |                |   |    |
| Community Wildfire Protection Plan   |  | -   | Local                                     | -                               | No             |   |    |
| <b>Comment:</b> Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.   |  |   |   |                                 |                |   |    |
| Forest Management Plan   |  | -   | Local                                     | -                               | No             |   |    |
| <b>Comment:</b>  |  |   |   |                                 |                |   |    |
| Transportation Plan  |  | -   | Local                                     | -                               | No             |   |    |
| <b>Comment:</b>  |  |   |   |                                 |                |   |    |
| Agriculture Plan   |  | NYCRR Part 390 Agricultural and Farmland Protection -   | Local                                     |                                 |                |   |    |
| <b>Comment:</b> Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.   |  |   |   |                                 |                |   |    |
| Other (tourism, business dev, etc.)  |  |   |   |                                 |                |   |    |
| <b>Comment:</b>  |  |   |   |                                 |                |   |    |
| <b>Response/Recovery Planning</b>  |  |   |   |                                 |                |   |    |
| Comprehensive Emergency Management Plan  |  | NYS Executive Law, Article 2B   | Local                                     | Local OEM                       | Yes            |   |    |
| <b>Comment:</b> The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).   |  |   |   |                                 |                |   |    |
| Threat & Hazard Identification & Risk Assessment (THIRA)   |  | -   | Local                                     | Local OEM                       | Yes            |   |    |
| <b>Comment:</b> THIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA. |  |   |   |                                 |                |   |    |
| Post-Disaster Recovery Plan  |  | -   | Local                                     | -                               | No             |   |    |
| <b>Comment:</b>  |  |   |   |                                 |                |   |    |
| Continuity of Operations Plan  |  | -   | Local                                     | -                               | No             |   |    |





|   | Does your municipality have this? (Yes/No) | Code Citation and Date (code chapter, name, date, link) | Authority (local, county, state, federal) | Department / Agency Responsible | State Mandated | Have aspects of this been integrated into your mitigation plan?<br>If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete) |
|---|--|---|---|---------------------------------|----------------|---|
| <b>Comment:</b> According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations. |  |   |   |                                 |                |   |
| Public Health Plan  |  |   |   |                                 |                |   |
| <b>Comment:</b>   |  |   |   |                                 |                |   |
| Other: Emergency Response Plan  |  |   |   |                                 |                |   |
| <b>Comment:</b> Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.   |  |   |   |                                 |                |   |
| <b>Other:</b> Special Purpose Ordinances (such as critical or sensitive areas)  |  |   |   |                                 |                |   |
| <b>Comment:</b>   |  |   |   |                                 |                |   |
| <ul style="list-style-type: none"> <li>Local Waterfront: Yes, Local, Comprehensive Plan/ LWRP Special Board; Planning Board; Zoning Board of Appeals</li> </ul>   |  |   |   |                                 |                |   |

**Table 9.2-4. Development and Permitting Capability**

| Indicate if your jurisdiction implements the following  | Response Yes/No; Provide further detail |
|---|---|
| Development Permits. If yes, what department?   |   |
| Permits are tracked by hazard area. For example, floodplain development permits.  |   |
| Buildable land inventory<br>If yes, please describe<br>If no, please quantitatively describe the level of buildout in the jurisdiction. |   |

**Administrative and Technical Capability**

The table below summarizes potential staff and personnel resources available to the Village of Cold Spring.

**Table 9.2-5. Administrative and Technical Capabilities**

| Resources   | Available? (Yes or No) | Department/ Agency/Position  |
|---|------------------------|--|
| <b>Administrative Capability</b>                                  |                        |  |
| Planning Board  | Yes                    | The Village Planning Board is comprised of five members appointed by the Mayor and Board of Trustees to review all site plans and subdivision proposals with regard to land use or change of land use. The board also provides opinions to the Zoning Board of Appeals and reviews zoning variances. |
| Mitigation Planning Committee                                     |                        |  |
| Environmental Board/Commission                                    |                        |  |
| Open Space Board/Committee  | Yes                    | Tree Advisory Board; Recreation Commission - comprised of five members who are appointed by the Mayor and the Board of Trustees to manage and maintain all Village parks, playgrounds and recreational facilities.   |
| Economic Development Commission/Committee                         |                        |  |
| Warning Systems / Services (reverse 911, outdoor warning signals) |                        |  |
| Maintenance programs to reduce risk                               |                        |  |





| Resources  | Available?<br>(Yes or No) | Department/ Agency/Position  |
|--|---------------------------|--|
| Mutual aid agreements  |                           |  |
| <b>Technical/Staffing Capability</b>   |                           |  |
| Planners or engineers with knowledge of land development and land management practices                     | Yes                       | The Village uses contract planners and engineers on a project-specific basis. Currently, the Village has a contracted water/wastewater engineer and a planner under contract.                        |
| Engineers or professionals trained in building or infrastructure construction practices                    | Yes                       | The Village uses contract planners and engineers on a project-specific basis. Currently, the Village has a contracted water/wastewater engineer and a planner under contract.                        |
| Planners or engineers with an understanding of natural hazards   | Yes                       | The Village uses contract planners and engineers on a project-specific basis. Currently, the Village has a contracted water/wastewater engineer and a planner under contract.                        |
| Staff with expertise or training in benefit/cost analysis  | No                        |  |
| Professionals trained in conducting damage assessments   |                           |  |
| Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications | No                        |  |
| Scientist familiar with natural hazards  | Yes                       | See above.   |
| NFIP Floodplain Administrator (FPA)  | Yes                       | Historically assisted by Town of Philipstown Building Inspector. The Village’s ordinance designates the Building Inspector as the FPA. The Code Enforcement Officer is currently Charlotte Mountain. |
| Surveyor(s)  | No                        |  |
| Emergency Manager  | Yes                       |  |
| Grant writer(s)  | No                        |  |
| Resilience Officer   |                           |  |
| Other  |                           |  |

**Fiscal Capability**

The table below summarizes financial resources available to the Village of Cold Spring.

**Table 9.2-6. Fiscal Capabilities**

| Financial Resources   | Accessible or Eligible to Use<br>(Yes/No)              |
|---|--|
| Community development Block Grants (CDBG, CDBG-DR)                | Accessible, not used to date                           |
| Capital improvements project funding                              | Not formalized   |
| Authority to levy taxes for specific purposes                     | Yes  |
| User fees for water, sewer, gas or electric service               | Yes  |
| Impact fees for homebuyers or developers of new development/homes | No   |
| Stormwater utility fee  |  |
| Incur debt through general obligation bonds                       | Yes  |
| Incur debt through special tax bonds                              | Have not used  |
| Incur debt through private activity bonds                         | No   |
| Withhold public expenditures in hazard-prone areas                | No   |
| Other federal or state Funding Programs                           | Yes, the Village will continue to pursue grant funding |
| Open Space Acquisition funding programs                           |  |



| Financial Resources | Accessible or Eligible to Use (Yes/No) |
|---------------------|--|
| Other               |  |

### Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Cold Spring.

**Table 9.2-7. Education and Outreach Capabilities**

| Indicate if your jurisdiction has the following resources   | Yes/No; Please describe |
|---|-------------------------|
| Public information officer or communications office?  |                         |
| Personnel skilled or trained in website development?  |                         |
| Hazard mitigation information available on your website; if yes, describe   |                         |
| Social media for hazard mitigation education and outreach; if yes, briefly describe.                                    |                         |
| Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.               |                         |
| Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe. |                         |
| Warning systems for hazard events; if yes, briefly describe.  |                         |
| Natural disaster/safety programs in place for schools; if yes, briefly describe.  |                         |
| Other   |                         |

### Community Classifications

The table below summarizes classifications for community programs available to the Village of Cold Spring.

**Table 9.2-8. Community Classifications**

| Program   | Participating? (Yes/No) | Classification (if applicable) | Date Classified (if applicable) |
|---|-------------------------|--------------------------------|---------------------------------|
| Community Rating System (CRS)                           | No                      | -                              | -                               |
| Building Code Effectiveness Grading Schedule (BCEGS)    |                         |                                |                                 |
| Public Protection (ISO Fire Protection Classes 1 to 10) |                         |                                |                                 |
| NYSDEC Climate Smart Community                          | No                      | -                              | -                               |
| Storm Ready Certification                               | No                      | -                              | -                               |
| Firewise Communities classification                     | No                      | -                              | -                               |
| Other   |                         |                                |                                 |

Note:

N/A Not applicable

- Unavailable

### Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an



understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

- Does the municipality have access to resources to determine the possible impacts of climate change upon the municipality?
- Is the administrative supportive of integrating climate change in policies or actions?
- Is climate change already being integrated into current policies/plans or actions (projects/monitoring) within the municipality?

**Table 9.2-9. Adaptive Capacity of Climate Change**

| Hazard              | Adaptive Capacity (Capabilities) - High/Medium/Low* |
|---------------------|---|
| Disease Outbreak    | High  |
| Drought             | Medium  |
| Earthquake          | Medium  |
| Extreme Temperature | Medium  |
| Flood               | Medium  |
| Harmful Algal Bloom | Low   |
| Severe Storm        | Medium  |
| Severe Winter Storm | Medium  |
| Terrorism           | High  |
| Wildfire            | Medium  |

\*High Capacity exists and is in use  
 Medium Capacity may exist; but is not used or could use some improvement  
 Low Capacity does not exist or could use substantial improvement  
 Unsure Not enough information is known to assign a rating

**National Flood Insurance Program**

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

**NFIP Floodplain Administrator (FPA)**

Not identified

**National Flood Insurance Program (NFIP) Summary**

The following table summarizes the NFIP statistics for the Village of Cold Spring.

**Table 9.2-10. NFIP Summary**

| Municipality           | # Policies | # Claims (Losses) | Total Loss Payments | # RL Properties | # Policies in the 1% Flood Boundary |
|------------------------|------------|-------------------|---------------------|-----------------|-------------------------------------|
| Village of Cold Spring | 21         | 29                | \$1,906,668         | 10              | N/A                                 |

Source: FEMA 2020  
 Notes: Policies, claims, and repetitive loss statistics provided by FEMA Region 2, and current as of July 28, 2020. The total number of repetitive loss properties does not include severe repetitive loss properties  
 RL Repetitive Loss

**Resources**

Not identified



### Compliance History

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In recent history, the Village has worked along with the Town of Philipstown building department and NFIP FPA to assist with meeting local building code and NFIP requirements. This arrangement is currently being re-evaluated by the Village. The Village will be updating their NFIP ordinance in accordance with the results of this evaluation.

The Village has site plan review, permitting and inspection process that insures that new development and substantial improvements are conducted in compliance with all regulations and ordinances, including consideration of natural hazard risk areas.

Due to their limited policy base and municipal resources, the Village does not believe that participation in the NFIP's Community Rating System (CRS) program would be cost-effective or practical at this time.

### Regulatory

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Not identified

### Additional Areas of Existing Integration

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- **NFIP Floodplain Management:** The Village has historically worked with the Town of Philipstown with building code inspections and enforcement, including NFIP issues. The Village is currently evaluating this arrangement, and will be updating their NFIP Flood Damage Prevention Ordinance accordingly.
- **NFIP Floodplain Management:** The Village has, and will continue to perform, outreach to their floodprone residents to support the implementation of appropriate mitigation projects, as identified in their proposed mitigation strategy.
- **Building Local Mitigation Capabilities:** The Village has included an initiative within the proposed mitigation strategy to support and participate in county-led initiatives intended to build local and regional mitigation and risk-reduction capabilities.
- **Land Use Regulation:** The Village is working towards the development of a steep slopes ordinance, per the Comprehensive Plan. The Planning Board is responsible for floodplain management, and drainage, as per the Subdivision of Land Regulations.
- **Capital Planning:** While the Village does not have a formal Capital Plan, capital expenditures have historically considered natural hazard risk reduction.
- **Stormwater and Stream Channel Maintenance:** The Village regularly cleans stormwater appurtenances and maintains stream channel flow through regular inspections along Back Brook.
- **Hazard Recognition, Early Warning / Public Education and Awareness:** Central Hudson has a weather station in Cold Spring, one of 24 they have in the region. The Village continues to support the ongoing operation of this station, and supports public awareness of hazards through the Putnam County Bureau of Emergency Services and the NYAlert program.
- **Climate Change and Sea Level Rise:** While considering, planning, engineering and undertaking projects along the Hudson River, the Village will review and incorporate the latest information on climate change and sea level rise projections. Current sea level rise and coastal flooding adaptation information is available from the following sources:





- NYSERDA’s ClimAid report and 2014 updated sea level rise projections (<http://www.nyserda.ny.gov/Cleantech-and-Innovation/Environment/Environmental-Research-and-Development-Technical-Reports/Response-to-Climate-Change-in-New-York.aspx>)
- Scenic Hudson’s sea level rise mapper (<http://www.scenichudson.org/slr/mapper>)
- FEMA’s Coastal Construction Manual (<https://www.fema.gov/media-library/assets/documents/3293>)
- NYS DEC’s Climate Smart Communities program (<http://www.dec.ny.gov/energy/50845.html>)
- NYS Community Risk and Resiliency Act (adopted Sep 2014) ([http://assembly.state.ny.us/leg/?default\\_fld=&bn=A06558&term=2013&Summary=Y&Actions=Y&Memo=Y&Text=Y](http://assembly.state.ny.us/leg/?default_fld=&bn=A06558&term=2013&Summary=Y&Actions=Y&Memo=Y&Text=Y))

**Evacuation, Sheltering, Temporary Housing, and Permanent Housing**

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

**Evacuation Routes**

Not identified

**Sheltering**

Not identified

**Temporary Housing**

Not identified

**Permanent Housing**

Not identified

**9.2.5 Hazard Event History Specific to the Village of Cold Spring**

Putnam County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Cold Spring’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Putnam County. Table 9.2-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

**Table 9.2-11. Hazard Event History**

| Dates of Event | Event Type (Disaster Declaration if applicable) | County Designated? | Summary of Event   | Municipal Summary of Damages and Losses |
|----------------|---|--------------------|--|---|
| March 1, 2015  | Winter Weather                                  | N/A                | Heavy snow fell over parts of southeast New York State, including areas of | Not identified                          |





| Dates of Event     | Event Type (Disaster Declaration if applicable) | County Designated? | Summary of Event  | Municipal Summary of Damages and Losses |
|--------------------|---|--------------------|---|---|
|                    |   |                    | Putnam County. Snowfall totals ranged from 5.1 inches in Cold Spring to 5.8 inches in Brewster.   |   |
| March 2020-present | COVID-19 (DR-4480)                              | Yes                |   | Not identified                          |
| April 13, 2020     | High Wind                                       | N/A                | High winds downed trees in Putnam County. Downed trees were reported in Carmel and Cold Spring. \$50,000 in property damage in Putnam County. | Not identified                          |

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable

### 9.2.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Village of Cold Spring’s risk assessment results and data used to determine the hazard ranking.

#### Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2’ above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.2-12. Potential Flood Losses to Critical Facilities

| Name                     | Type              | Exposure |            | Addressed by Proposed Action |
|--------------------------|-------------------|----------|------------|------------------------------|
|                          |                   | 1% Event | 0.2% Event |                              |
| Boathouse                | Private Structure | X        |            |                              |
| WEST POINT FOUNDRY DAM   | Dam               | X        |            |                              |
| West Street Pump Station | Wastewater        | X        | X          |                              |

#### Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with





its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Putnam County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Cold Spring. The village did not provide input on the calculated ranking; therefore, no adjustments were made to the table below.

**Table 9.2-13. Hazard Ranking Input**

|                     |                |                       |                     |          |
|---------------------|----------------|-----------------------|---------------------|----------|
| Disease Outbreak    | Drought        | Earthquake            | Extreme Temperature | Flood    |
| Medium              | Medium         | Low                   | Medium              | Low      |
| Harmful Algal Bloom | Severe Weather | Severe Winter Weather | Terrorism           | Wildfire |
| Low                 | High           | High                  | Medium              | Medium   |

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

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

**Identified Issues**

The municipality has identified the following vulnerabilities within their community:

- West Street Pump Station – Vulnerable to loss of power
- Market Street Pump Station – Vulnerable to loss of power
- Properties along waterfront are vulnerable to storm surge flooding. Flooding during Irene and Sandy flooded basements and some first floors. All basements in the area are flood susceptible, and many have utilities and oil tanks in the basement. It was noted that both LPG tanks and oil tanks are vulnerable to flooding (floating, leaking) in the area.
- Dams in Philipstown are a real concern. The hazard of dam failure really the damage it would cause. They have a water supply backup plan with the NYSDEC, so loss of water is not their vulnerability. The Town of Philipstown at Fishkill Road and Foundry Pond Road would suffer the worst damages. The Village owns three dams which currently have some deficiencies, and a fourth (Jaycox Pond) which is not of a concern.
- Weather information, early warning
- Vulnerable overhead power lines, however, it is noted that due to their location on the grid, the Village has power restored relatively quickly.
- Steep slopes are common in the area, however slopes are mostly rock ledge and they have had no issues to date

**9.2.7 Mitigation Strategy and Prioritization**

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

**Past Mitigation Initiative Status**

The following table indicates progress on the community’s mitigation strategy identified in the 2014 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as





such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.

DRAFT



Table 9.2-14. Status of Previous Mitigation Actions

| Project # | Project Name   | Hazard(s) Addressed  | Responsible Party                        | Brief Summary of the Original Problem and the Solution (Project)  | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete)  |                     | Next Steps<br>1. Project to be included in 2020 HMP or Discontinue<br>2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate).<br>3. If discontinue, explain why. |
|-----------|--|--|--|---|--|--------------------------------------|---------------------|--|
|           |  |  |  |   |  | Cost                                 | Level of Protection |  |
| CSP-1     | Relocation of West Street Pump Station               | Flood, Severe Storm, Severe Winter Storm, Climate Change                             | Village of Cold Spring Clerk / Treasurer | Relocate West Street Pump Station to higher ground.   |  | Cost                                 |                     |  |
| CSP-2     | Market Street Pump Station Mitigation                | Flood, Severe Storm, Severe Winter Storm, Climate Change                             | Village of Cold Spring Clerk / Treasurer | Install backup power and elevate vulnerable electrical utilities – project currently in progress using a generator received from Sandy. Engineering is complete   |  | Level of Protection                  |                     |  |
| CSP-3     | Waterfront Property Flood and Storm Surge Mitigation | Flood, Severe Storm (storm surge), Severe Winter Storm (storm surge), Climate Change | Mayor                                    | <p>Problem Description: Properties along waterfront are vulnerable to storm surge flooding. Flooding during Irene and Sandy flooded basements and some first floors. All basements in the area are flood susceptible, and many have utilities and oil tanks in the basement.</p> <p>Mitigation Project:</p> <ul style="list-style-type: none"> <li>• Install an electrical design disconnect to de-energize this area prior to inundation</li> <li>• Work with property owners to elevate utilities which are often in basements</li> <li>• Assure the ground level oil and LPG tanks are properly secured</li> </ul> <p>Work with property owners to elevate or relocate basement oil tanks to at least ground level, and properly secure.</p> |  | Damages Avoided; Evidence of Success |                     |  |
| CSP-4     | Back Brook Stormwater and                            | Flood, Severe  | Mayor, as supported by                   | Back Brook Stormwater and Flood Management  |  | Cost                                 |                     |  |
|           |  |  |  |   |  | Level of Protection                  |                     |  |





| Project # | Project Name     | Hazard(s) Addressed                             | Responsible Party   | Brief Summary of the Original Problem and the Solution (Project)  | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete)  |                                      | Next Steps<br>1. Project to be included in 2020 HMP or Discontinue<br>2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate).<br>3. If discontinue, explain why. |
|-----------|------------------|---|---|---|--|--------------------------------------|--------------------------------------|--|
|           |                  |   |   |   |  | Protection                           | Damages Avoided; Evidence of Success |  |
|           | Flood Management | Storm, Climate Change                           | water / waste water engineer  | <p>Location: Back Brook</p> <p>Problem Description: Flooding along Back Brook which originates on the northeast border with Nelsonville and runs through town, partially underground.</p> <p>Mitigation Project: Flooding along Back Brook can be essentially eliminated if the drains on the NE end are cleaned and maintained. The Village may want to inspect the underground sections for blockages and damage. The Village has an ongoing program to maintain this area, including maintaining proper flow along Back Brook.</p>   |  |                                      |                                      |  |
| CSP-5     | Dam Upgrades     | Flood, Severe Storm, Earthquake, Climate Change | Mayor, as supported by water / waste water engineer; working with NYS DEC | <p>Dam Upgrades</p> <p>Location: Dams located in Philipstown</p> <p>Problem Description: Dams in Philipstown are a real concern. The hazard of dam failure really the damage it would cause. They have a water supply backup plan with the NYSDEC, so loss of water is not their vulnerability. The Town of Philipstown at Fishkill Road and Foundry Pond Road would suffer the worst damages. The Village owns three dams which currently have some deficiencies, and a fourth (Jaycox Pond) which is not of a concern.</p> <p>Mitigation Project: They are working on getting dams into compliance. They have a temporary backup water connection to the aqueduct. Once they establish a permanent hookup (they are in the design phase, waiting for NYSDEC sign off on the engineering design). Once they get approval and complete the connection, they can lower the lakes and complete the repair work. They have done what</p> |  |                                      |                                      |  |
|           |                  |   |   |   |  | Cost                                 |                                      |  |
|           |                  |   |   |   |  | Level of Protection                  |                                      |  |
|           |                  |   |   |   |  | Damages Avoided; Evidence of Success |                                      |  |



| Project # | Project Name  | Hazard(s) Addressed                               | Responsible Party   | Brief Summary of the Original Problem and the Solution (Project)  | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete)  |  | Next Steps<br>1. Project to be included in 2020 HMP or Discontinue<br>2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate).<br>3. If discontinue, explain why. |
|-----------|---|---|---|---|--|--------------------------------------|--|--|
|           |   |   |   | they can (removal of trees, etc.). Currently the Village has completed agreements with NYS DEC and is going through the permitting process.   |  |                                      |  |  |
| CSP-6     | Undergrounding Utilities  | Severe Storm, Severe Winter Storm, Climate Change | Village Mayor, working along with electric utilities            | Undergrounding Utilities<br>Location: Village-wide, particularly in downtown area<br>Problem Description: Vulnerable overhead power lines<br>Mitigation Project: Evaluate feasibility and cost/benefits of undergrounding utilities when the Village does major subsurface work along roads and sidewalks (e.g. in downtown section).   |  | Cost                                 |  |  |
|           |   |   |   |   |  | Level of Protection                  |  |  |
|           |   |   |   |   |  | Damages Avoided; Evidence of Success |  |  |
| CSP-7     | Promote and support non-structural flood hazard mitigation alternatives   | Flood, Severe Storm, Climate Change               | Village NFIP FPA; support from NYS DHSES and FEMA               | Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are properties in the following areas: <ul style="list-style-type: none"> <li>Main Street</li> <li>West Street</li> <li>New Street</li> </ul> |  | Cost                                 |  |  |
|           |   |   |   |   |  | Level of Protection                  |  |  |
|           |   |   |   |   |  | Damages Avoided; Evidence of Success |  |  |
| CSP-8     | Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities | All Hazards                                       | Putnam County, as supported by relevant local department leads, | Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities, specifically: <ul style="list-style-type: none"> <li>Re-Establish Local Emergency Planning Committees (LEPCs) within the County, with an emphasis on stronger municipal level participation. (PCBES-1).</li> </ul>   |  | Cost                                 |  |  |
|           |   |   |   |   |  | Level of Protection                  |  |  |
|           |   |   |   |   |  | Damages Avoided; Evidence of Success |  |  |



| Project # | Project Name | Hazard(s) Addressed | Responsible Party | Brief Summary of the Original Problem and the Solution (Project)   | Status (In Progress, Ongoing, No Progress, Complete) | Evaluation of Success (if complete) | Next Steps<br>1. Project to be included in 2020 HMP or Discontinue<br>2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate).<br>3. If discontinue, explain why. |
|-----------|--------------|---------------------|-------------------|--|--|-------------------------------------|--|
|           |              |                     |                   | <ul style="list-style-type: none"> <li>• Workshops and Seminars to build local capabilities in floodplain management and disaster recovery (PCBES-11), potentially to include:               <ul style="list-style-type: none"> <li>○ NFIP Community Rating System (CRS)</li> <li>○ Benefit-Cost Analysis (BCA)</li> <li>○ Substantial Damage Estimating (SDE)</li> <li>○ NFIP Elevation Certificates (EC)</li> <li>○ Certified Floodplain Manager (CFM) Training and Certification</li> </ul> </li> </ul> <p>County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures (PCBES-12)</p> |  |                                     |  |



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

The Village of Cold Spring has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2016 Plan:

- None identified

### Proposed Hazard Mitigation Initiatives for the Plan Update

A mitigation action workshop was held on August 26, 2020. The municipalities that attended were provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013) and NYSDHSES Hazard Mitigation Planning Standards (2017).

Table 9.2-16 summarizes the comprehensive-range of specific mitigation initiatives the Village of Cold Spring would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.2-17 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.2-15. Proposed Hazard Mitigation Initiatives

| Project Number | Project Name | Goals Met | Hazard(s) to be Mitigated | Description of Problem and Solution | Critical Facility (Yes/No) | EHP Issues | Estimated Timeline | Lead Agency | Estimated Costs | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CFS Category |
|----------------|--------------|-----------|---------------------------|-------------------------------------|----------------------------|------------|--------------------|-------------|-----------------|--------------------|---------------------------|----------|---------------------|--------------|
|                |              |           |                           | <b>Problem:</b>                     |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Solution:</b>                    |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Problem:</b>                     |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Solution:</b>                    |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Problem:</b>                     |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Solution:</b>                    |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Problem:</b>                     |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Solution:</b>                    |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Problem:</b>                     |                            |            |                    |             |                 |                    |                           |          |                     |              |
|                |              |           |                           | <b>Solution:</b>                    |                            |            |                    |             |                 |                    |                           |          |                     |              |

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

- CAV Community Assistance Visit
- CRS Community Rating System
- DPW Department of Public Works
- EHP Environmental Planning and Historic Preservation
- FEMA Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitigation Assistance
- N/A Not applicable
- NFIP National Flood Insurance Program
- OEM Office of Emergency Management

Potential FEMA HMA Funding Sources:

- BRIC Building Resilient Infrastructure and Communities
- FMA Flood Mitigation Assistance Grant Program
- HMGP Hazard Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

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

Critical Facility:

Yes Critical Facility located in 1% floodplain

Mitigation Category:

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





- *Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities*

CRS Category:

- *Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.*
- *Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.*
- *Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.*
- *Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.*
- *Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.*
- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities*

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Table 9.2-16. Summary of Prioritization of Actions

| Project Number | Project Name | Life Safety | Property Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community Objectives | Total | High / Medium / Low |
|----------------|--------------|-------------|---------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|----------------------------|-------|---------------------|
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |
|                |              |             |                     |                    |           |           |       |        |               |        |                |              |          |                 |                            |       |                     |

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

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### 9.2.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

**Table 9.2-17. Analysis of Mitigation Actions by Hazard and Category**

| Hazard | FEMA |     |     |     | CRS |    |    |    |    |    |
|--------|------|-----|-----|-----|-----|----|----|----|----|----|
|        | LPR  | SIP | NSP | EAP | PR  | PP | PI | NR | SP | ES |
|        |      |     |     |     |     |    |    |    |    |    |

*Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.*

### 9.2.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Cold Spring did not participate in the 2020 HMP planning process.

#### 9.2.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Cold Spring that illustrates the probable areas impacted within the municipality. 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. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Cold Spring has significant exposure. The map is illustrated below.

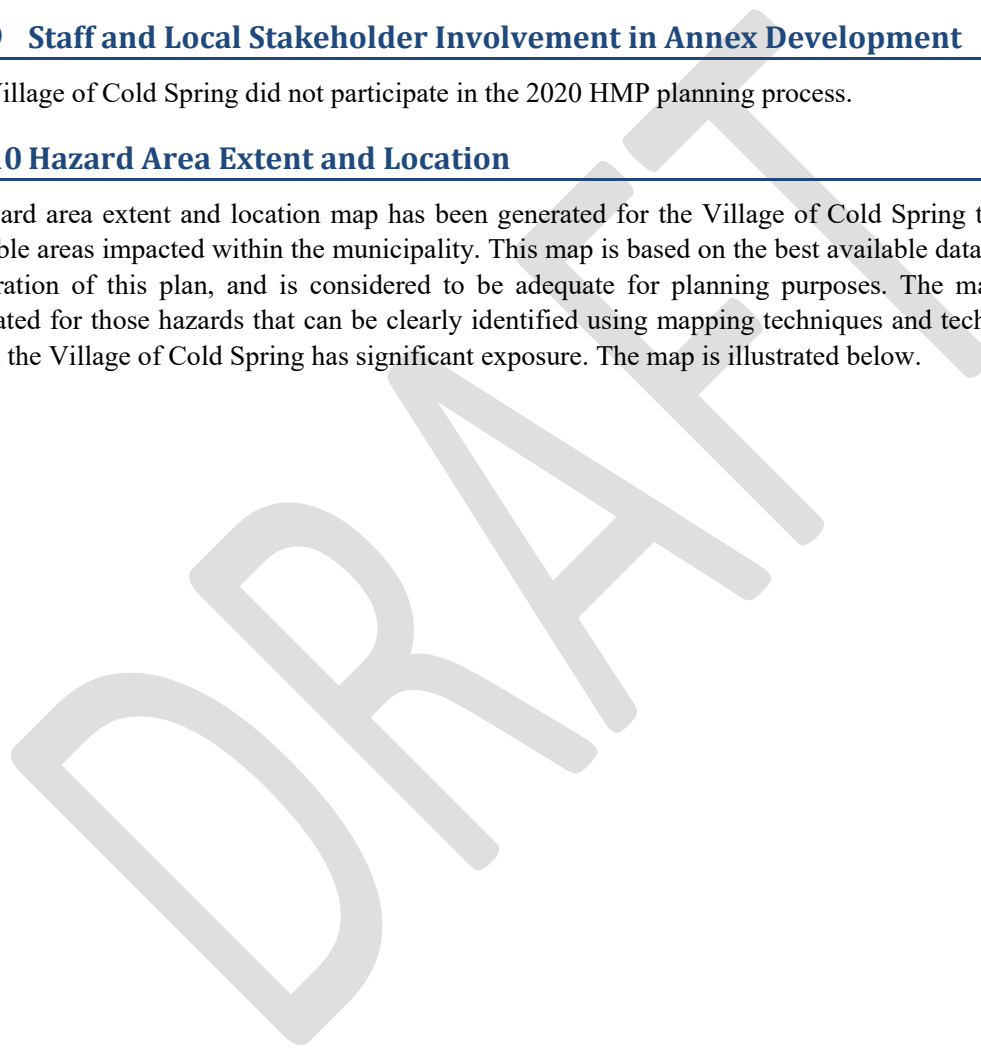




Figure 9.2-1. Village of Cold Spring Hazard Area Extent and Location Map

