

9.18 Town of Pound Ridge

This section presents the jurisdictional annex for the Town of Pound Ridge.

9.18.1 Hazard Mitigation Plan Point of Contact

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

Primary Point of Contact	Alternate Point of Contact
Vinnie Duffield, Jr., Superintendent of Highways Town of Pound Ridge Highway Department 290 Stone Hill Road, Pound Ridge, NY 10576 914-764-5690 vduffield@townofpoundridge.com	Gary David Warshauer, Executive Director Office of Emergency Management 179 Westchester Avenue, Pound Ridge, NY 10576 914-582-9597 (cell) gdw@wmwarchitects.com

9.18.2 Municipal Profile

This section provides a summary of the community.

Population

According to the U.S. Census, the 2010 population for the Town of Pound Ridge was 5,104, with a population density of 220 persons per square mile. The population slightly increased from the 2000 census (4,726).

Location

The Town of Pound Ridge is situated in eastern Westchester County, New York. The town is approximately 23.5 square miles in area and is located on Route 137. The town is bordered by the Town of Lewisboro to the north and northeast, the Town of Bedford to the west, the Town of North Castle to the southwest, and the City of Stamford and the Town of New Canaan, Connecticut to the southeast. The Town of Pound Ridge includes the hamlets of Pound Ridge, Sarles Corners, and Scotts Cornersⁱ.

Brief History

Pound Ridge was first settled in the early 18th century by settlers from Huntington, Long Island and Stamford, Connecticut. Following the American Revolution, Pound Ridge was officially incorporated as a Town in 1788. The Town was primarily an agricultural community in the 18th and 19th centuries, with some commercial beef and dairy farming, shoemaking, and basket making. In the late 19th century a significant land purchase was made by the Stamford Water Company to create dams and reservoirs at Trinity Lake and Siscowit Reservoir for public water supply. Population declined from the late 19th century into the 20th century to a low of 515 in 1920 as industry left and traditional farming converted to dairy farming. Forest began to reclaim lands previously used for agriculture, exacerbating a several hundred acre wildfire in May 1911. Westchester County purchased 4,000 acres of land in northern Pound Ridge and Lewisboro to create the Ward-Pound Ridge Reservation in 1925.ⁱ

In the 1930's Hiram Helle came to Pound Ridge from New York City and began renovating homes and reconstructing houses. This attracted actors, writers, artists, and musicians who began purchasing homes in the Town. The population steadily rose to over 4,000 in 1980.ⁱⁱ Today, the Town continues to be primarily a low-density rural community of single-family homes and open space, although there is potential for a small multi-family development to occur. Development in Pound Ridge is limited by the presence of wetlands, steep slopes, and water features. Most growth is limited to individual single-family homes and small subdivisions.

Governing Body Format

The Town of Pound Ridge operates under the Mayor-Council form of municipal government. The Town Board is comprised of the Supervisor and four board members who represent the governing and legislative body of the town. The Supervisor functions as chief executive officer. Members of the Board are elected for four-year terms, with the Supervisor being elected every two years.ⁱⁱⁱ

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2005 and any known or anticipated major development that has been identified in the next five years within the municipality.

Table 9.18-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	Number of Units / Structures	Location (address and/or Parcel IDs)	Known Hazard Zones*	Description / Status
Recent Development					
None identified at this time.					
Known or Anticipated Development					
Ridge 29	Multi-family development	44 units	Trinity Pass & Pine Drive	None	Proposed

* Only location-specific hazard zones or vulnerabilities identified.

9.18.3 Natural Hazard Event History Specific to the Municipality

Westchester County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan, events that have occurred in the County from 2005 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.18-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
August 26 - September 5, 2011	Hurricane Irene	DR-4020	Yes	Significant wind damage and power outages lasting up to 14 days.
October 29-30, 2011	Winter Storm "Alfred"	DR-4046	No	Significant wind/ice damage to trees and power outages lasting up to 7 days.
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes	Significant wind damage and power outages lasting up to 14 days.

Notes:

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

N/A Not applicable
PA Public Assistance

9.18.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Town of Pound Ridge. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Natural Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the natural hazard risk/vulnerability rankings of potential hazards for Town of Pound Ridge.

Table 9.18-3. Natural Hazard Risk/Vulnerability Risk Ranking

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
Earthquake	100-Year GBS: \$0 500-Year GBS: \$443,496 2,500-Year GBS: \$10,712,281	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	30	Medium
Flood	1% Annual Chance: \$889,822,855	Frequent	39	High
Severe Storm	100-Year MRP: \$18,594,444 500-year MRP: \$86,479,001 Annualized: \$1,109,601	Frequent	48	High
Winter Storm	1% GBS: \$43,497,103 5% GBS: \$217,485,516	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$97,274,951	Frequent	18	Medium

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

b. The valuation of general building stock and loss estimates was based on the custom inventory developed for Westchester County and probabilistic modeling results and exposure analysis as discussed in Section 5.

c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages.

d. Frequent = Hazard event that is likely to occur within 25 years;
Occasional = Hazard event that is likely to occur within 100 years; and
Rare = Hazard event that is not likely to occur within 100 years

e. The estimated potential losses for Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.

GBS = General building stock

MRP = Mean return period

RCV = Replacement cost value

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

Table 9.18-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 1% Flood Boundary (3)
Pound Ridge (T)	48	14	\$113,755.5	1	0	14

Source: FEMA Region 2, 2014

- (1): Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of March 31, 2014. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents the number of claims closed by March 31, 2014.
- (2): Information regarding total building and content losses was gathered from the claims file provided by FEMA Region 2.
- (3): The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file. FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.18-5. Potential Flood Losses to Critical Facilities

Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event		
			1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
Barnwell Water Treatment Plant	Pound Ridge (T)	Potable Water Facility		X	-	-	-
Mill River Dam	Pound Ridge (T)	Dam	X	X	-	-	-
Treatment Plant	Pound Ridge (T)	Potable Water Facility	X	X	4.1	-	-
Trinity Dam	Pound Ridge (T)	Dam	X	X	-	-	-
Well #1	Pound Ridge (T)	Well		X	-	-	-
Well #2	Pound Ridge (T)	Well		X	-	-	-
Well No 1	Pound Ridge (T)	Well	X	X	-	-	-
Well No 2	Pound Ridge (T)	Well	X	X	-	-	-

Source: HAZUS-MH 2.1

Note: x = Facility located within the 0.2-percent annual chance flood boundary.

Please note it is assumed that wells have electrical equipment and openings are three-feet above grade.

- (1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).
- (2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type.

Other Vulnerabilities Identified by Municipality

The Town identified the following vulnerabilities to the community:

Critical Facilities

None of the Town's critical facilities are located in special flood hazard areas. The Pound Ridge Elementary School is the secondary shelter but does not have a generator. The Town offered one to the school a few years ago but it was not accepted.

Wind & Winter Storms

- Pound Ridge staff are primarily concerned with the loss of electricity and the inability to access roads during and after storm events. The loss of electricity affects wells, septic systems, heating, and cooling for nearly all residents. Hurricane Sandy, Winter Storm Alfred, and Hurricane Irene each caused significant power outages by bringing down trees and limbs that had a great impact on the town. No areas of town are more prone to wind damage than any others.

- The Town believes that the response time of the local electric utility (New York State Electric and Gas, NYSEG) has historically been slow. The utility must ensure that downed wires are not live before road clearing can begin. Town crews must wait for the utility to arrive before work can commence. This has exacerbated emergency response times during recent major storms as trees blocked evacuation routes and primary routes to local hospitals. The Town also believes that miscommunications between Town personnel and NYSEG have slowed response times. The Town would like to work with NYSEG to ensure that a “make safe” crew is stationed in the town prior to major storm events. This would greatly improve response times as the utility crew can immediately assess the power situation and town crews can begin clearing. During a recent emergency management meeting, NYSEG did commit to having “make safe” crews available.
- Town officials have looked into placing existing aboveground utilities below ground but have found that it is very expensive. The terrain in Pound Ridge adds difficulty to this process. Underground utilities also have the potential to be affected by high groundwater tables common in parts of the town.
- According to Town staff, drifting snow and icing are not issues in Pound Ridge.

Flooding

- Flooding in Pound Ridge is very limited and only occurs during extreme storm events. These areas are noted below:
 - Flooding can occur in a low-lying area in the vicinity of Siscowit Road and Eastwoods Road near the Siscowit Reservoir. The floodwaters in this area typically recede very quickly.
 - Flooding has occurred on Old Church Lane when the existing box culvert was overwhelmed. This is not a common occurrence.
- Two earthen dams (at the reservoirs) are located in Pound Ridge. They are reportedly well-maintained and the town does not have any concerns about the condition of these dams.

Wildfire

- The Town would like to install additional dry hydrants as there are many areas without fire protection. Two such areas are Indian Hill and Beach Hill. A priority list should be developed to guide the installation of additional dry hydrants and cisterns.

9.18.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

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

Table 9.18-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y	State	Building	
Zoning Ordinance	Y	Local	Planning Board / Planning	Chapter 113
Subdivision Ordinance	Y	Local	Planning Board / Planning	Chapter A117
NFIP Flood Damage Protection Ordinance	Y	Federal, State, Local	Building	Chapter 60
NFIP - Freeboard	Y	Federal, State, Local	Building	NFIP minimum BFE or above for residential construction in Zone AE, BFE+2 for non-residential construction in Zone AE, Grade+3 required in Zone A
NFIP - Cumulative Substantial Damages	N			
Special Purpose Ordinances (e.g. wetlands, critical or sensitive areas)	Y	Local	Town Board / Water Control Comm.	Chapter 63 Freshwater Wetlands Chapter 93 Trees
Growth Management	Y	Local	Planning Board	Comprehensive Plan (2010)
Floodplain Management / Basin Plan	Y	Federal, State, Local	Building	Chapter 60
Stormwater Management Plan/Ordinance	Y	Local	Town Board / Planning Board	Chapter 91A, Chapter 91B
Comprehensive Plan / Master Plan	N	Local	Town Board / Planning Board	Adopted 2010
Capital Improvements Plan	N			
Site Plan Review Requirements	Y	Local	Planning Board / Building	Chapter A117; other applicable code sections
Habitat Conservation Plan	N			
Economic Development Plan	N			
Emergency Response Plan	Y	Local	Emergency Services	Emergency Management Plan (2013)
Post Disaster Recovery Plan	N			

Table 9.18-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Post Disaster Recovery Ordinance	N			
Real Estate Disclosure req.	Y			NYS mandate
Other (e.g. steep slope ordinance, local waterfront revitalization plan)	Y	Local	Planning Board	Chapter 89 Slopes Protection
Coastal Erosion Control Districts	N			
Shoreline Management Plan	N			
Sediment Control	Y	Local	Planning Board	Chapter 89
Mutual Aid Plan	Y	County	Emergency Services	Mutual Aid Plan in place for entire County

(1) *NYS Subdivision laws provide a general framework, but allow room for local ordinances and interpretation.*

Administrative and Technical Capability

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

Table 9.18-7. Administrative and Technical Capabilities

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Planning Board, Building Department
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Building Department
Planners or engineers with an understanding of natural hazards	Y	Planning Board, Building Department
NFIP Floodplain Administrator	Y	Building Inspector
Surveyor(s)	Y	Contracted
Personnel skilled or trained in “GIS” applications	Y	Contracted
Scientist familiar with natural hazards in the County.	N	
Emergency Manager	Y	Office of Emergency Management
Grant Writer(s)	N	
Staff with expertise or training in benefit/cost analysis	N	
Professionals trained in conducting damage assessments	N	

Fiscal Capability

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

Table 9.18-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG)	No. HUD is preventing funding to County Administrators
Capital Improvements Project Funding	No
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
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Mitigation grant programs	Yes
Other	No

Community Classifications

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

Table 9.18-9. Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	NP ^{iv}	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	TBD	TBD
Public Protection	TBD	TBD
Storm Ready	NP ^v	N/A
Firewise	NP ^{vi}	N/A

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

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

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- 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/>

National Flood Insurance Program

The following section provides details on the National Flood Insurance Program (NFIP) as implemented within the municipality:

NFIP Floodplain Administrator:

Mr. James Perry, Building Inspector, Building Department is the Floodplain Administrator for Pound Ridge, NY.

Flood Vulnerability Summary

The Town does not maintain lists/inventories of properties that have been damaged by floods. Substantial damage estimates were not made by the Floodplain Administrator during Hurricane Sandy or other events. Currently, there are no residents interested in mitigation (elevation or acquisition) in the Town.

Resources

The Floodplain Administrator is the sole person assuming responsibilities of floodplain administration and believes that they are adequately supported and trained to fulfill their responsibilities. The Floodplain Administrator would consider attending continuing education and/or certification training on floodplain management. The Town provides outreach to the community regarding flood hazards/risk, flood risk reduction through NFIP insurance, mitigation, etc. through online links and other media made available by outside agencies.

Compliance History

The Floodplain Administrator did not provide information regarding compliance history.

Regulatory

The Town's floodplain management regulations/ordinances exceed the FEMA minimum requirements in some cases but only meet the minimum NFIP standards in others. For example, all non-residential construction and substantial improvement in Zone AE is required to be elevated to the base flood elevation plus two feet, greater than the plus one foot mandated by the State and the plus zero feet mandated by the NFIP. However, for residential construction the floodplain management regulations only require elevation of the lowest floor to the BFE or higher. This is consistent with the NFIP but inconsistent with the State mandate of two feet of freeboard.

There are additional local ordinances, plans and programs that support floodplain management and meet the NFIP requirements. A Floodplain Development Permit is required before any construction or any other development may occur within the Special Flood Hazard Area. The community has not considered joining the CRS program.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

The Town of Pound Ridge Comprehensive Plan (2010) includes many goals and strategies that are pertinent to hazard mitigation. The Plan recommends establishing a maximum percentage of impervious surface coverage per lot, considering no net change in quantity of stormwater between pre- and post-development conditions, and recommends revising the land development regulations to include low impact development and other stormwater BMP requirements. The Plan also encourages continued land acquisitions by the local Open Space Acquisitions Committee for the protection of natural resources and open space, including surface waters such as wetlands and floodplains.

Upon adoption, this hazard mitigation plan will be made available to applicable Town departments as a planning tool to be used in conjunction with existing documents and regulations. It is expected that revisions to other Town plans and regulations such as the Comprehensive Plan, department annual budgets, and the Town code may reference this plan and its updates. The Supervisor will be responsible for ensuring that the actions identified in this hazard mitigation plan are incorporated into ongoing Town planning activities, and that the information and requirements of this hazard mitigation plan are incorporated into existing planning documents within five years from the date of adoption or when other plans are updated, whichever is sooner. Refer to Table 9.18.10 for a cross-reference of which plans and regulations may be most important for updating relative to this hazard mitigation plan.

Table 9.18-10. Plans and Regulations to be potentially updated

Regulation or Plan	Status Relative to Hazard Mitigation Plan	Responsible Party
Comprehensive Plan	Many recommendations in the Comprehensive Plan are pertinent to hazard mitigation as discussed above. The next Comprehensive Plan update will include incorporate elements of this hazard mitigation plan or its updates	Planning Board
Emergency Management Plan	The next Emergency Management Plan update will be informed by the analyses in this hazard mitigation plan	Emergency Services

The Supervisor will be responsible for assigning appropriate Town officials to update portions of the Comprehensive Plan, Emergency Management Plan and the Town Code to include the provisions from this Plan if it is determined that such updates are appropriate. However, should a general revision be too cumbersome or cost prohibitive, simple addendums to these documents may be added that include the provisions of this hazard mitigation plan.

Regulatory and Enforcement

Local legislation is used to decrease future flooding risk and to mitigate other hazards. As discussed above, Pound Ridge's code exceeds certain portions of the NFIP minimum standards. The Building Department is in charge of enforcing building codes including the NFIP regulations. Utilities are required to be installed underground in new subdivision developments.

Chapter 91 of the Town code regulates drainage in the community. Drainage considerations are addressed prior to construction as part of the site plan review process. The Highway Department conducts maintenance of drainage systems and clears bridges and culverts of debris to ensure proper conveyance of stormwater as needed. Drainage complaints are typically routed to the Highway Department. Town staff review the need to install new drainage systems or upsize existing drainage systems as part of review of proposed projects or

when flooding damage occurs. The Town recently replaced a culvert on Winterbottom Lane and a culvert at the Town Park. No other culverts need to be replaced at this time.

Operational and Administration

Pound Ridge Emergency Services meets monthly and conducts both table top and live-action drills to prepare for various emergency situations. They have conducted drills involving the local schools also. The meetings are attended by a representative of NYSEG and community representatives of Northern Westchester Hospital, Stamford Emergency Medical Services, and New Canaan Emergency Medical Services. The Town updated its Emergency Management Plan in 2013. All personnel involved in emergency management receive training to better respond to events involving natural hazards. Other first responders also receive training appropriate to their roles and responsibilities, including appropriate response procedures to respond to events involving hazardous materials.

The Town of Pound Ridge utilizes the CodeRed emergency notification system to broadcast emergency warnings to town residents. The Town also provides the “Are You OK?” (“RUOK”) service to older adults, disabled persons, and anyone else who needs to be checked on a daily basis. The system calls each enrolled subscriber at the same time each day, and a police patrol car is sent if a response is not received after several tries. Residents are encouraged to sign up for these services on the Town’s website.

The Town House serves as the primary shelter and warming center during emergencies. The Pound Ridge Elementary School is available as the backup shelter if needed. All critical facilities are at equipped with emergency generators except for the Elementary School.

The Town of Pound Ridge is in regular communication with Pound Ridge’s neighbors with regards to preparedness for emergencies, and has mutual aid agreements with local municipalities. For example, Emergency Medical Services personnel from Stamford and New Canaan, Connecticut often respond to emergencies in Pound Ridge.

The Highway Department is responsible for maintaining and plowing all town roads and a few County roads in Pound Ridge. The Town has seven large plow trucks and three small pickup trucks with plows to conduct snow removal. Salt and a liquid pretreatment is used to treat roads prior to storm events, and either salt or a sand and salt mixture is used once plowing begins depending on road conditions.

Pound Ridge staff continuously identifies hazardous/dangerous trees and branches and removes them or encourages the property owner to remove them. Pound Ridge staff encourage “power line friendly” tree plantings near power lines that will not grow to interfere with overhead utilities. The Highway Department is in charge of tree trimming. The current town budget for trimming is believed to be sufficient for the need.

Pound Ridge staff also coordinate with NYSEG regarding tree cutting around utility right-of-ways. Following Irene, Pound Ridge developed an electronic tracking system to assist NYSEG in accessing impacts following storm events. The Town sends out crews to assess the damage (e.g. the number of downed utility poles) and uploads the information electronically to NYSEG. This eliminates the need for the utility to send a reconnaissance crew as they will already know the extent of the damage. Town staff indicated that following Hurricane Sandy, the utility company did a fly over and estimated that 20 to 30 utility poles were down in the town. As a result of the electronic tracking system, town crews were able to report that there were over 100 poles down.

Bedford, Pound Ridge, and Lewisboro are participating in a NYSEG pilot project for identifying and reporting power outages. If successful, the methodology may be able to reduce outage times in the future.

The Town has 22 dry hydrants located throughout the community and three strategically-located cisterns to provide fire protection water. Public water supply is not located in the community. The Fire Department also has a brush truck to access hard to reach fires.

Fiscal

Projects will be added to the capital improvement plan and funded as possible. Grant funding is believed necessary to cost-justify several capital projects listed in Section 9.18.6.

Education and Outreach

The Fire Department provides regular educational programs to children and adults throughout the community. Many of these programs discuss mitigating the effects of natural hazards.

Pound Ridge does not have the staff or resources to develop pamphlets and informational flyers for residents. Town staff believe that such pamphlets should be generated at the County level and distributed to residents by the respective municipalities. Pound Ridge staff routinely distribute literature and pamphlets developed by outside agencies regarding mitigating the effects of a variety of natural hazards. The information is distributed via public locations such as at the Town House.

The Building Department staff continually attend training regarding building code updates which occasionally include training on floodplain regulations. The State will adopt new building and fire codes in 2014. Other town employees also receive training appropriate to their roles and responsibilities.

9.18.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The Town of Pound Ridge has no prior mitigation strategy.

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Town of Pound Ridge has not identified any additional mitigation projects/activities that have been completed, are planned, or on-going within the municipality.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Pound Ridge identified mitigation initiatives they would like to pursue in the future. Some of these initiatives may be previous actions carried forward for this plan. 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. Table 9.18-11 identifies the municipality's updated local mitigation strategy.

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 actions as 'High', 'Medium', or 'Low.' Table 9.18-12 below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.18-10. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
TPR-1	Acquire generator for Pound Ridge Elementary School (backup shelter)	Existing	All Hazards	1,5	Super.	Low	Medium	HMA	DOF	Low	SIP	ES
TPR-2	Work with NYSEG to ensure a “make safe crew” is stationed in town prior to major storm events	Existing	Wind / Ice	1,5	Super. / Emer. Serv.	Medium	Low	N/A	OG	High	EAP	ES
TPR-3	Develop a priority list to guide the installation of additional dry hydrants and cisterns in the community	Existing	Wildfire	3	Emer. Serv.	Low	Low	N/A	Short	Medium	EAP	ES
TPR-4	Install additional dry hydrants and cisterns in areas without adequate fire protection water available	Existing	Wildfire	2	Super. / Emer. Serv.	Medium	Medium	PDM	DOF	Medium	SIP	ES
TPR-5	Establish a regulation in the Town Code restricting the maximum amount of impervious cover per lot as suggested in the Comprehensive Plan	New	Flooding	2	Planning Board	Low	Low	N/A	Short	High	LPR	PR
TPR-6	Establish a regulation in the Town Code requiring no net change in the quantity of stormwater between pre- and post-development conditions as suggested in the Comprehensive Plan	New	Flooding	5	Planning Board	Low	Low	N/A	Short	High	LPR	PR
TPR-7	Establish regulations in the Town Code requiring the use of low-impact development techniques and other stormwater best management practices in new developments as suggested in the Comprehensive Plan	New	Flooding	5	Planning Board	Low	Low	N/A	Short	High	LPR	PR
TPR-8	Modify local codes to be consistent with the state minimum standard (require all new residential construction or substantial improvement to be elevated to BFE +2)	New	Flooding	2	Planning Board	Low	Low	N/A	Short	Low	LPR	PR
TPR-9	Incorporate hazard mitigation plan information into the next Comprehensive Plan and Emergency Management Plan updates	Existing	All Hazards	3	Planning Board / Emer. Serv.	Low	Low	N/A	Long	Low	EAP	PI

Table 9.18-10. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
TPR-10	The Town of Pound Ridge plans to centralize all emergency management facility resources to one centralized location and proposes to construct a public safety facility.	New	All Hazards	1,5	Supervisor	Low	High	HMA	DOF (Short)	Medium	SIP	ES
TPR-11	Provide backup power capacity to municipal facilities to allow for public use of showers, restrooms and other facilities.	Existing	All Hazards	1,5	Supervisor	Low	High	HMA	DOF (Short)	Medium	SIP	ES
TPR-12	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) and Severe Repetitive Loss (SRL), 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 locations: High Ridge Road											
	See above.	Existing	Flooding, Severe Storm	G-2, G-3	Municipal NFIP FPA; support from NYS DHSES and FEMA	High - Reduced or eliminated risk to property damage from flooding	High	FEMA or other mitigation grant funding, NFIP flood insurance and ICC; property owner for local match.	Long-term DOF	High	SIP, EAP	PP, ES

Notes:

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

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued in 2015)
SRL	Severe Repetitive Loss Grant Program (discontinued in 2015)

Timeline:

Short	1 to 5 years
Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

Costs:**Benefits:**

Costs:

Where actual project costs have been reasonably estimated:

Low < \$10,000

Medium \$10,000 to \$100,000

High > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

Medium Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

High Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low= < \$10,000

Medium \$10,000 to \$100,000

High > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low Long-term benefits of the project are difficult to quantify in the short term.

Medium Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High Project will have an immediate impact on the reduction of risk exposure to life and property.

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

Table 9.18-11. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	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
TPR-1	Acquire generator for Pound Ridge Elementary School (backup shelter)	1	-1	-1	1	1	0	-1	0	1	0	1	1	1	0	4	Low
TPR-2	Work with NYSEG to ensure a “make safe crew” is stationed in town prior to major storm events	0	-1	1	1	1	0	1	0	1	0	1	1	1	0	7	High
TPR-3	Develop a priority list to guide the installation of additional dry hydrants and cisterns in the community	-1	-1	0	1	1	1	1	0	1	1	-1	1	1	0	5	Medium
TPR-4	Install additional dry hydrants and cisterns in areas without adequate fire protection water available	0	1	0	1	0	1	-1	1	1	1	-1	1	1	0	6	Medium
TPR-5	Establish a regulation in the Town Code restricting the maximum amount of impervious cover per lot as suggested in the Comprehensive Plan	-1	0	0	1	1	1	1	1	1	1	-1	1	0	1	7	High
TPR-6	Establish a regulation in the Town Code requiring no net change in the quantity of stormwater between pre- and post-development conditions as suggested in the Comprehensive Plan	-1	0	0	1	1	1	1	1	1	1	-1	1	0	1	7	High
TPR-7	Establish regulations in the Town Code requiring the use of low-impact development techniques and other stormwater best management practices in new developments as suggested in the Comprehensive Plan	-1	0	0	1	1	1	1	1	1	1	-1	1	0	1	7	High
TPR-8	Modify local codes to be consistent with the state minimum standard (require all new residential construction or substantial improvement to be elevated to BFE +2)	-1	1	0	1	0	1	1	0	0	1	-1	1	0	0	4	Low
TPR-9	Incorporate hazard mitigation plan information into the next Comprehensive Plan and Emergency Management Plan updates	-1	-1	0	1	0	1	1	0	1	1	1	1	-1	0	4	Low
TPR-10	The Town of Pound Ridge plans to centralize all emergency management facility resources to one centralized location and proposes to construct a	0	-1	-1	1	1	1	-1	0	1	1	1	1	1	0	5	Medium

Table 9.18-11. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	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
	public safety facility.																
TPR-11	Provide backup power capacity to municipal facilities to allow for public use of showers, restrooms and other facilities.	1	-1	-1	1	1	1	-1	0	1	1	1	1	1	0	6	Medium
TPR-12	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) and Severe Repetitive Loss (SRL)	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.

9.18.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.18.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Pound Ridge that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Pound Ridge has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.18.9 Additional Comments

None at this time.

Figure 9.18-1. Town of Pound Ridge Hazard Area Extent and Location Map

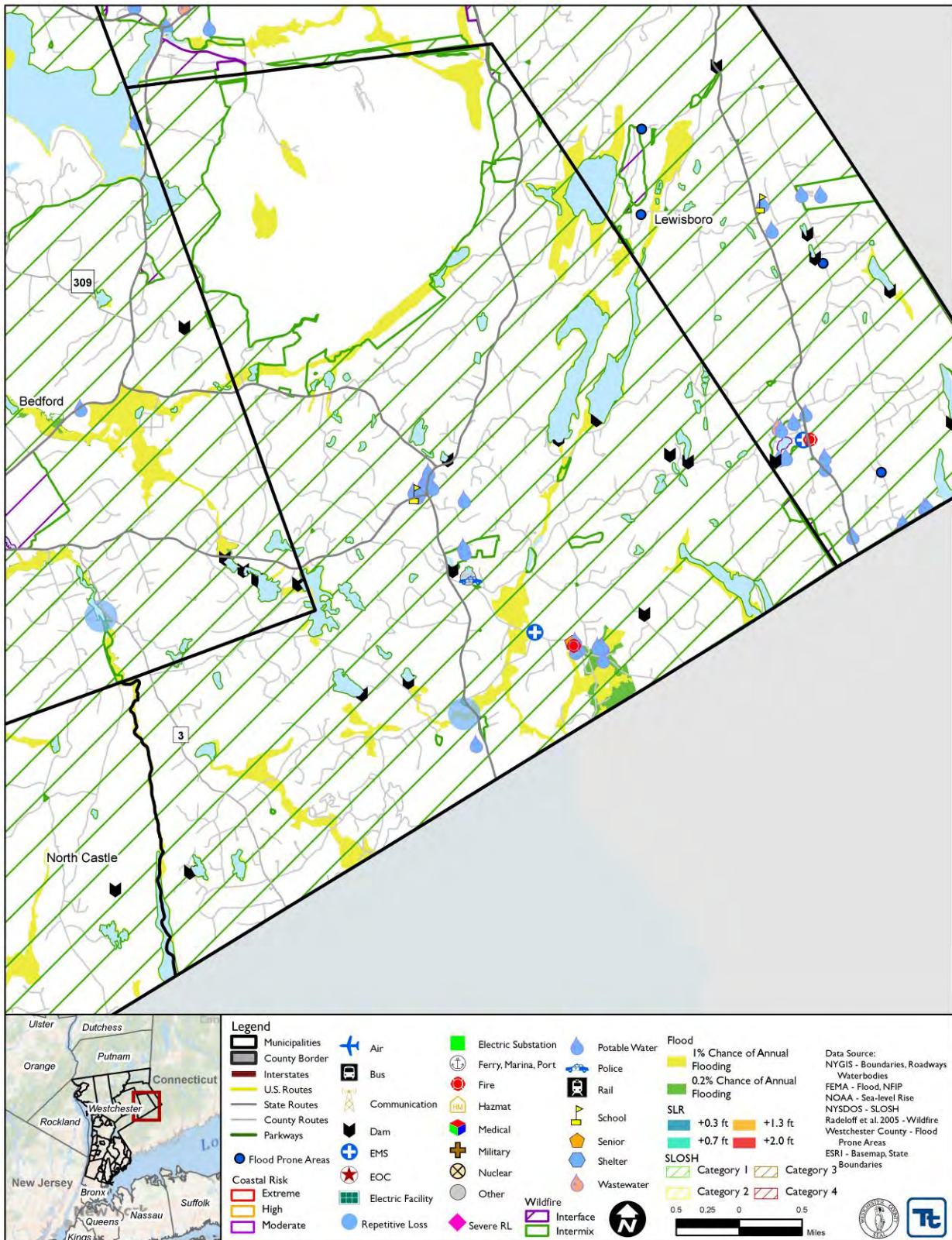
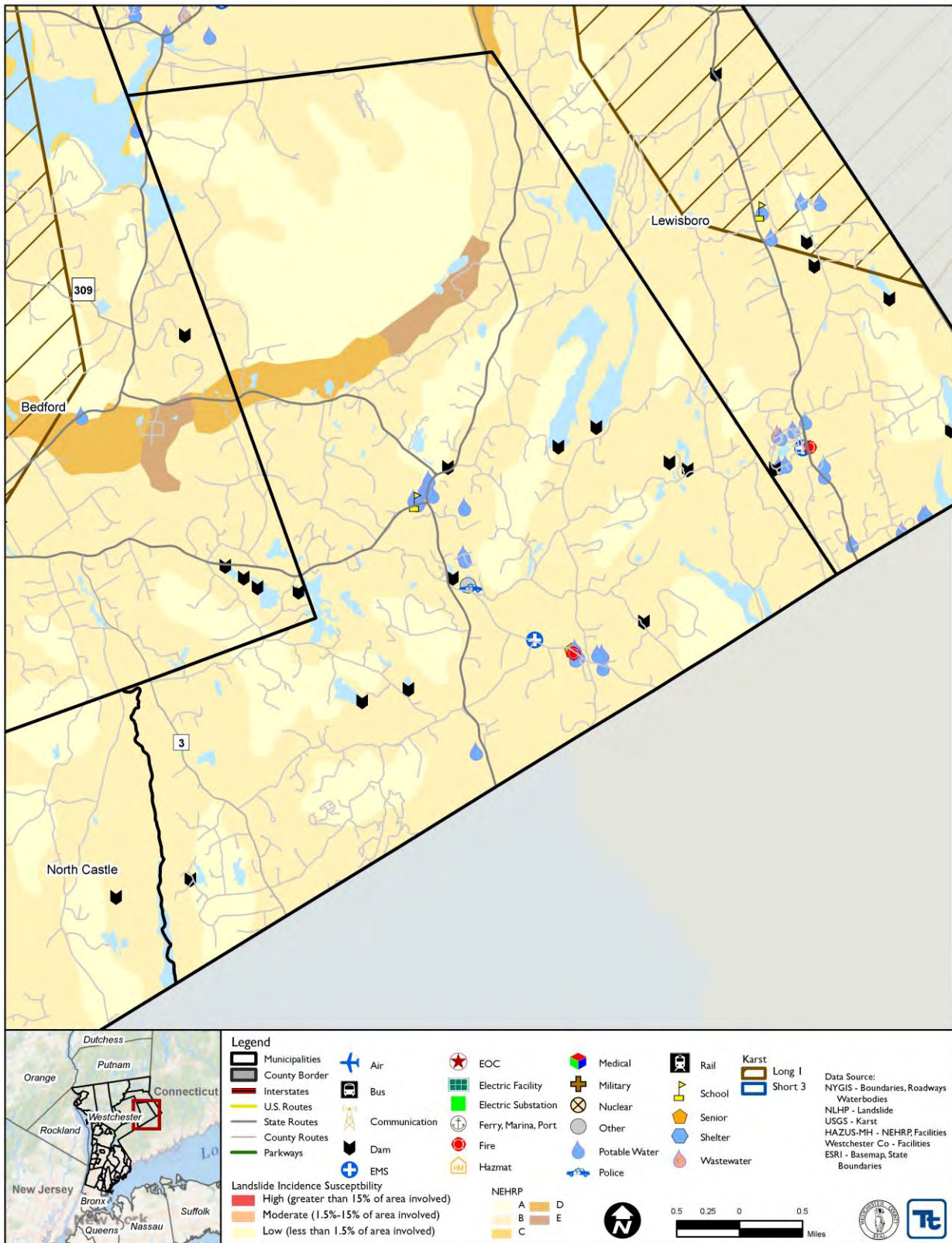


Figure 9.18-2. Town of Pound Ridge Hazard Area Extent and Location Map



Name of Jurisdiction: Town of Pound Ridge
Action Number: TPR-1
Action Name: Pound Ridge Elementary School Generator

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The Pound Ridge Elementary School is the Town's secondary shelter, but it does not have a generator. This limits the structure's usefulness during extended power outages.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No action – Backup shelter operates a minimum efficiency during power outages – not preferred.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install back up power capacity to the school to allow for public use of restrooms and other facilities and to maximize use of the facility during extended power outages.
Mitigation Action/Project Type	SIP
Objectives Met	1,5
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Low
Estimated Cost	Medium
Priority*	Low
Plan for Implementation	
Responsible Organization	Town of Pound Ridge, Gary Warshauer, Town Supervisor
Local Planning Mechanism	The administration of this action will be added to the Supervisor's workplan
Potential Funding Sources	HMGP; Local Match
Timeline for Completion	DOF (Short duration preferred)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)

Action Number:

TPR-1

Action Name:

Pound Ridge Elementary School Generator

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Direct life safety benefit for residents
Property Protection	-1	Does not protect property
Cost-Effectiveness	-1	Estimated benefits are less than estimated costs
Technical	1	Project is technically feasible and a long-term solution
Political	1	Political will to implement project (letter of interest)
Legal	0	School district property, Town must coordinate
Fiscal	-1	Grant funding necessary to implement project
Environmental	0	No significant benefit or impact to the environment
Social	1	Benefits entire community
Administrative	0	Town can administer project with school board
Multi-Hazard	1	All hazards
Timeline	1	Short duration preferred
Agency Champion	1	The Supervisor is a champion for this project
Other Community Objectives	0	
Total	4	
Priority (High/Med/Low)	Low	Relative to other actions for Pound Ridge

Name of Jurisdiction: Town of Pound Ridge, Pound Ridge

Action Number: TPR-10; LOI #1392

Action Name: Public Safety Facility

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The Town of Pound Ridge maintains minimal building infrastructure for municipal usage. As such, municipal departments are spreadout in several smaller buidlings. Preparation for storm events, operational continuity during storm events and post event recovery requires a central operational facility to be most efficient. Recent severe storms have shown that having dispersed facilities has not been effective for emergency management.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	By expanding existing infrastructure, the Town of Pound Ridge plans to centralize all emergency management facility resources to one centralized Public Safety Facility. During the operational phase of ANY event, the Town of Pound Ridge would be able to more efficiently respond.
Mitigation Action/Project Type	SIP
Objectives Met	1,5
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages: \$0 (Low)
Estimated Cost	\$500000 (High)
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Pound Ridge, Gary Warshauer, Town Supervisor
Local Planning Mechanism	The administration of this action will be added to the Supervisor's workplan
Potential Funding Sources	HMGP; Local Match
Timeline for Completion	DOF (Short duration preferred)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)

Action Number: TPR-10; LOI #1392
Action Name: Public Safety Facility

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	Indirect benefit to life safety
Property Protection	-1	Not a property protection measure
Cost-Effectiveness	-1	Estimated costs are higher than estimated benefits
Technical	1	Project is technically feasible and a long-term solution
Political	1	Political will to implement project (letter of interest)
Legal	1	Town owned land
Fiscal	-1	Project cannot be completed without grant funding
Environmental	0	No significant environmental benefits or impacts
Social	1	Project benefits entire community
Administrative	1	Town can administrate project
Multi-Hazard	1	All hazards
Timeline	1	Short duration preferred
Agency Champion	1	The Supervisor is a champion for this project
Other Community Objectives	0	
Total	5	
Priority (High/Med/Low)	Medium	Relative to other actions for Pound Ridge

Name of Jurisdiction: Town of Pound Ridge
Action Number: TPR-11; LOI #1384
Action Name: Facilities Back Up Power Plan

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The Town of Pound Ridge is predominantly a residential municipality with no local source for water or sewer treatment. Each home is dependent on an individual well and septic system. During power outages, this eliminates the ability of homeowners to utilize these facilities. Residents look to the Town for assistance, but municipal buildings do not have backup power capability.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action – Residents must rely on neighbors with generators for water and facilities, and the Town is limited in being able to provide provisions – not preferred 1. 2. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install back up power capacity to municipal facilities to allow for public use of showers, restrooms and other facilities, and to provide back up power for locations for distribution of water, dry ice and other necessities in a post superstorm emergency situation.
Mitigation Action/Project Type	SIP
Objectives Met	1,5
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages: \$0 (Low)
Estimated Cost	\$100000 (High)
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Pound Ridge, Gary Warshauer, Town Supervisor
Local Planning Mechanism	The administration of this action will be added to the Supervisor's workplan
Potential Funding Sources	HMGP; Local Match
Timeline for Completion	DOF (Short duration preferred)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)

Action Number: TPR-11; LOI #1384
Action Name: Facilities Back Up Power Plan

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Direct life safety benefit for residents
Property Protection	-1	Does not protect property
Cost-Effectiveness	-1	Estimated benefits are less than estimated costs
Technical	1	Project is technically feasible and a long-term solution
Political	1	Political will to implement project (letter of interest)
Legal	1	Town property
Fiscal	-1	Grant funding necessary to implement project
Environmental	0	No significant benefit or impact to the environment
Social	1	Benefits entire community
Administrative	1	Town can administer project
Multi-Hazard	1	All hazards
Timeline	1	Short duration preferred
Agency Champion	1	The Supervisor is a champion for this project
Other Community Objectives	0	
Total	6	
Priority (High/Med/Low)	Medium	Relative to other actions for Pound Ridge

ⁱ http://en.wikipedia.org/wiki/Pound_Ridge,_New_York

ⁱⁱ <http://www.townofpoundridge.com/community/town-history>

ⁱⁱⁱ <http://www.townofpoundridge.com/boardsandcommissions/town-board>

^{iv} https://s3-us-gov-west-1.amazonaws.com/dam-production/uploads/1398878892102-5cbcaa727a635327277d834491210fec/CRS_Communities_May_1_2014.pdf

^v <http://www.stormready.noaa.gov/com-maps/ny-com.htm>

^{vi} http://submissions.nfpa.org/firewise/fw_communities_list.php