



9.28 VILLAGE OF RED HOOK

This section presents the jurisdictional annex for the Village of Red Hook.

9.28.1 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
Edward Blundell, Mayor 7467 South Broadway, Red Hook, New York 845-758-4701 edwardmblundell@gmail.com	Sam Harkins, CEO/ZEO/ADA 7467 South Broadway, Red Hook, New York 845-758-1081 zoning@redhooknyvillage.org

9.28.2 Municipal Profile

The Village of Red Hook is located in northwestern Dutchess County and is fully surrounded by the Town of Red Hook. The Village has a total area of 1.1 square miles, all land. According to the 2010 Census, the population of the Village was 1,961.

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in Section 9.28.8 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.28-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to present					
Knollwood Commons	Res Condo’s	5 bldgs with 4 units	Firehouse Lane	None	90% complete
Known or Anticipated Development in the Next Five (5) Years					
Carr Sub-division	Residential	4	Maizeland Rd	None	Subdivision approved
Anderson Commons	Residential	96	Baxter Rd	TBD	Planning Board approved

* Only location-specific hazard zones or vulnerabilities identified.

9.28.3 Natural Hazard Event History Specific to the Municipality

Dutchess 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 2008 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. The Village of Red Hook did not provide any losses and/or damages as a result of the most recent events that impacted the Village.

9.28.4 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 Village of Red Hook. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Village of Red Hook.

Table 9.28-2. 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
Coastal Storm	100-year MRP: \$240,482.00 500-year MRP: \$1,340,301.00 Annualized: \$17,407.00	Frequent	48	High
Drought	Damage estimate not available	Frequent	42	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$126,975 2,500-Year GBS: \$1,448,936	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	30	Medium
Flood	1% Annual Chance: \$0	Frequent	36	High
Severe Storm	100-Year MRP: \$240,482 500-year MRP: \$1,340,301 Annualized: \$17,407	Frequent	48	High
Winter Storm	1% GBS: \$4,652,791 5% GBS: \$23,263,953	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$774,900,418	Frequent	48	High

Notes:

GBS = General building stock; MRP = Mean return period.

- a. The general building stock valuation is based on the custom inventory generated for the municipality and based on improved value.
- b. High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 20-30+
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the estimated value of contents. 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. Loss estimates for the flood and earthquake hazards represent both structure and contents. Potential flood loss estimates were generated using Hazus-MH 2.2 and the 2011 FEMA DFIRM for the 1-percent annual chance event. For the wildfire hazard, the improved value and estimated contents of buildings located within the identified hazard zones is provided.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Red Hook.





Table 9.28-3. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Village of Red Hook	1	0	\$0.00	0	0	0

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 12/31/2014. Please note the total number of repetitive loss properties does not include the severe repetitive loss properties. The number of claims represents claims closed by 12/31/14.

(2) Total building and content losses 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.

Notes: 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.

A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude

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 9.28-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
No critical facilities are located in the FEMA 1% and 0.2% Flood Hazard Area.						

Source: Dutchess County, NYGIS

Note (1): HAZUS-MH 2.2 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).

Note (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. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.2

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- There is a privately owned pond/wetland that is a problematic area in the Village.

9.28.5 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 Village of Red Hook.

Table 9.28-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	Yes	Local	Planning Board	Comprehensive Plan (1969)
Capital Improvements Plan				
Floodplain Management / Basin Plan				
Stormwater Management Plan				
Open Space Plan				
Stream Corridor Management Plan				
Watershed Management or Protection Plan				
Economic Development Plan				
Comprehensive Emergency Management Plan				
Emergency Response Plan				
Post-Disaster Recovery Plan				
Transportation Plan				
Strategic Recovery Planning Report				
Other Plans:	Yes	Local	Planning Board	Climate Action Plan (2011)
Regulatory Capability				
Building Code	Yes	State and Local	Building and Zoning Department	Chapter 95 – Building Construction and Fire Prevention (2011)
Zoning Ordinance	Yes	Local	Planning Board; Zoning Board of Appeals	Chapter 200 – Zoning (1999)
Subdivision Ordinance	Yes	Local	Planning Board; Zoning Board of Appeals	
NFIP Flood Damage Prevention Ordinance	Yes	Local	Village Engineer (per ordinance)	Chapter 117 – Flood Damage Prevention (2012)
NFIP: Cumulative Substantial Damages				
NFIP: Freeboard	Yes	State, Local	Village Engineer (per ordinance)	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
Growth Management Ordinances	No			



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Site Plan Review Requirements				
Stormwater Management Ordinance	No			
Municipal Separate Storm Sewer System (MS4)				
Natural Hazard Ordinance				
Post-Disaster Recovery Ordinance				
Real Estate Disclosure Requirement	Yes	State	NYS DOS	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	Village Board	Article V 200.29 – Landscaping and Buffering (1999) Chapter 179 – Trees (2003) Chapter 200.55 – Greenway Connections (2014) Chapter 115 – Environmental Quality Review (1999)

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Red Hook.

Table 9.28-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	
Environmental Board/Commission	Yes	Village Green Committee
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	No	
Mutual Aid Agreements	No	
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Village Engineer
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Village Engineer
NFIP Floodplain Administrator	Yes	Village Engineer (per Chapter 117 of Village Code); Currently staffed by Sam Harkins, ZEO
Surveyor(s)		
Personnel skilled or trained in GIS and/or HAZUS-MH applications		



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Scientist familiar with natural hazards		
Emergency Manager		
Grant Writer(s)		
Staff with expertise or training in benefit/cost analysis		
Professionals trained in conducting damage assessments		

Fiscal Capability

The table below summarizes financial resources available to the Village of Red Hook.

Table 9.28-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	No
User fees for water, sewer, gas or electric service	No
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	No
Other	No

Community Classifications

The table below summarizes classifications for community program available to the Village of Red Hook.

Table 9.28-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	TBD		
Public Protection (ISO Fire Protection Classes 1 to 10)	TBD		
Storm Ready	No	NP	N/A
Firewise	No	NP	N/A
Disaster/Safety Programs in/for Schools	TBD		
Organizations with Mitigation Focus (advocacy group, non-government)	TBD		



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public Education Program/Outreach (through website, social media)	TBD		
Public-Private Partnerships	TBD		

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

NFIP Floodplain Administrator (FPA)

Sam Harkins, ZEO

Flood Vulnerability Summary

The Village has no formal floodplains within its borders but Irene/Sandy/Lee raised water levels in a privately owned pond/wetland that caused still water flooding at several owner’s land and infrastructure. The Village currently does not make any substantial damage estimates. There has been no interest in mitigation in the Village.

Resources

The FPA is the sole person assuming the responsibilities of floodplain administration. NFIP administration services and functions provided by the FPA include permit review and inspection. There are no education or outreach programs regarding flood hazards/risk or flood risk reduction offered in the Village. The largest barrier to running an effective floodplain management program in the Village is funding. The Village FPA stated that continual education and/or certification training on flood plain management would be appreciated.



Compliance History

The Village is currently in good standing with the NFIP. The Village was audited by New York State after FEMA; however, has never had a compliance audit.

Regulatory

The Village's Planning Board conducts site plan reviews and considers efforts to reduce flood risk when reviewing these plans.

Community Rating System

The Village of Red Hook does not participate in the Community Rating System (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

Land Use Planning: The Village has a Planning Board and Zoning Board of Appeals which review all applications for development and consider natural hazard risk areas in their review. Many development activities require additional levels of environmental review, specifically NYS SEQ and Federal NEPA requirements.

Village of Red Hook Energy and Climate Action Plan 2012: The Town completed a plan which analyzed the climate change risks for the town and included recommendations for managing those risks. Some of the recommendations included the following:

- Buildings: work hard now to adopt energy efficiency and renewable energy measures to safeguard against possibly rising energy prices or shortages. - make air conditioning and Town/Village "cool spots" more widely available to cope with summer heat waves - strictly enforce building codes and land use regulations to minimize risk of damage to personal health or property in the event of disaster
- Agriculture: grow crop varieties better adapted to warmer conditions and longer growing seasons- upgrade and add irrigation systems to prepare for droughts- invest in cooling equipment for farms to preserve product, especially dairy - encourage purchase of locally grown food to a) build strong local farms, and b) institute the behavior change early to ensure local food security in the event of widespread international food shortage/price increases due to drought and flood
- Smart Land Use: maximize ground cover of plant mass to minimize erosion in the event of floods - plant trees to maximize shade areas in several years - build permanent embankments around homes and other buildings vulnerable to flooding in the event of severe storms - apply "Ecosystem-based Approaches" which aim to increase ecosystem resilience and protect the critical ecosystem services on which humans depend, reducing vulnerability of human and natural systems to climate change. EbAs offer a good complement to more common strategies such as infrastructure development.
- Disaster Preparedness: work with existing Disaster Preparedness Committee to develop contingency plans and improve early warning systems for potential events. - prepare a contingency plan in the



event of an influx of “climate refugees”/evacuees from coastal areas, including physical and mental health impacts on these individuals in addition to providing temporary housing, food, and water supplies.

- **Community Institutions:** build strong social institutions now for climate sensitivity, i.e. behaviors that support a sustainable community - work with residents to update insurance policies to safeguard against the effects of climate-induced disasters - foster strong and efficient mobilization of resources for adaptation measures, building a stable flow of financial and technical support to local actors.

Village of Red Hook Pattern Book 2013: The Village completed a Design guild for development in the Village that accounted for sustainable design standards in function and form for new or redevelopment projects.

Village Green Committee: This Committee is tasked with providing sustainable solution guidance and recommendations to the Planning and Zoning Boards on behalf of the Village.

Regulatory and Enforcement (Ordinances)

Flood Damage Prevention Chapter 117: It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. 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;
- B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- D. Control filling, grading, dredging and other development which may increase erosion or flood damages;
- E. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and
- F. Qualify for and maintain participation in the National Flood Insurance Program.

Zoning Code Chapter 200: The Village’s zoning code includes districts and standards pertaining to the mitigation of hazards. These sections include the stormwater management & erosion control standards.

Site Plan/Subdivision Review: The Village’s Planning Board is tasked with site plan/subdivision review. The Planning board pays special attention to ensure that developments mitigate the issues associated with flooding or steep slopes.

Building Code Chapter 95: The building codes are strictly enforced to make new and renovated buildings as prepared as possible for hazard related incidents. The chapter includes a provision to allow the building inspector to make emergency repairs to protect the health safety and welfare of the residents.

Funding

Operating Budget: The Village's operating budget contains minimal provisions for expected repairs like snow removal and infrastructure repair after a storm or natural disaster



Education and Outreach

The Village includes announcements on the home page and also has links to ongoing construction and planning projects. The Planning Department is a member of the Dutchess County Planning Federation and attends trainings and researches best practices that other communities are implementing. The Village has planned to budget for training for personal including professional development geared towards health and safety.

9.28.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The Village of Red Hook has no prior mitigation strategy.

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Village of Red Hook has no identified mitigation projects/activities that have been completed, are planned, or on-going within the municipality.

Proposed Hazard Mitigation Initiatives for the Plan

The Village of Red Hook participated in a mitigation action workshop in May 2015 and was 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 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.28-9 summarizes the comprehensive-range of specific mitigation initiatives the Village of Red Hook 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. 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 9.28-10 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan.



Table 9.28-9. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
VRH-1	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	Both	All	All	Planning	High	Low	Municipal	Short	High	LPR	PR
VRH-2	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1).	Existing	All Hazards		Municipal Engineering via NFIP FPA) with NYSDHSES, FEMA support	High	High	Federal and State Mitigation Grant Programs and local budget (or property owner) for cost share	Ongoing (outreach and specific project identification); Long term DOF (specific project application and implementation)	Medium	LPR, SIP	PR, PI
VRH-3	Develop and implement an enhanced all-hazards, public outreach / education / mitigation information program on natural hazard risks and what they can do in the way of mitigation and preparedness, including flood insurance.	N/A	All Hazards		Elected Official's Office	Medium	Low	Municipal Budget; HMA programs with local or county match	Short	High	EAP	PI

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

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 PDM Pre-Disaster Mitigation Grant Program

Timeline:

Short 1 to 5 years
 Long Term 5 years or greater
 OG On-going program





FEMA	Federal Emergency Management Agency	RFC	Repetitive Flood Claims Grant Program (discontinued in 2015)	DOF	Depending on funding
FPA	Floodplain Administrator				
HMA	Hazard Mitigation Assistance	SRL	Severe Repetitive Loss Grant Program (discontinued in 2015)		
N/A	Not applicable				
NFIP	National Flood Insurance Program				
OEM	Office of Emergency Management				

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 9.28-10. 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
VRH-1	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan	0	1	1	1	1	1	1	0	0	1	1	1	0	0	9	High
VRH-2	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1).	1	1	1	1	0	0	1	0	0	1	1	1	0	0	8	Medium
VRH-3	Develop and implement an enhanced all-hazards, public outreach / education / mitigation information program on natural hazard risks and what they can do in the way of mitigation and preparedness, including flood insurance.	0	1	1	1	1	1	1	0	0	1	1	1	0	0	9	High

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



9.28.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.28.8 Hazard Area Extent and Location

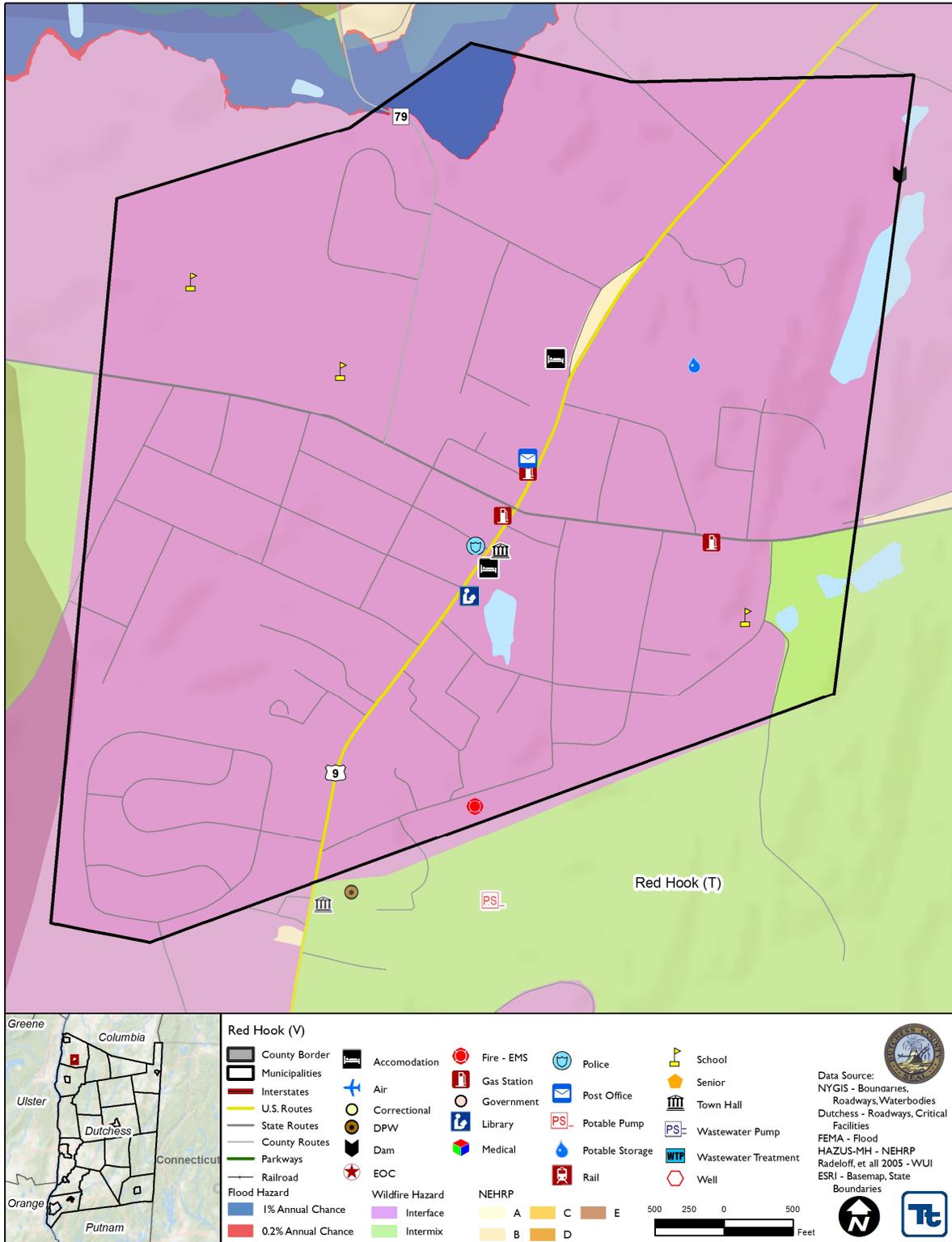
Hazard area extent and location maps have been generated for the Village of Red Hook that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.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

9.28.9 Additional Comments

None at this time.



Figure 9.28-1. Village of Red Hook Hazard Area Extent and Location Map





Action Number:

VRH-1

Mitigation Action Name:

Utilize the HMP to update the Master Plan

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There is a need to incorporate the HMP into the Village's master plan during the next update.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Do nothing – current problem continues 2. Use HMP to update the master plan 3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.
Mitigation Action Type	LPR
Goals Met	All
Applies to existing and or new development, or not applicable	Both
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Planning
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project: New



Action Number:

VRH-1

Mitigation Action Name:

Utilize the HMP to update the Master Plan

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority	High	