



Town of North Greenbush Jurisdictional Annex to the MULTIJURISDICTIONAL HAZARD MITIGATION PLAN

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

Town of North Greenbush Annex	1
Contact Information	1
Introduction	1
Jurisdiction Profile	1
Location and Land Area	1
Population	2
Demographics	2
Brief History	3
Governing Body	3
Growth and Development Trends	4
Hazard Identification	4
Hazard Event History	7
National Flood Insurance Program (NFIP) Summary	10
Critical Facilities Information	13
Jurisdiction/Public Identified Vulnerabilities	16
Additional Public Involvement	17
Capabilities Assessment	18
Planning and Regulatory	18
Administrative and Technical	19
Financial	20
Education and Outreach	21
Opportunities to Expand and/or Improve Capabilities	22
Mitigation Strategy	24

List of Tables

Table 1: Contact Information for the Town of North Greenbush	1
Table 2: Participants in the Hazard Mitigation Plan Update for the Town of North Greenbush	1
Table 3: Factors in the Calculated Priority Risk Index	5



Table 4: Types of Hazard Events with Calculated Priority Risk Index for the Town of North Greenbush6

Table 5: Notable Hazard Events in the Town of North Greenbush Since 2003.....8

Table 6: Responses on Floodplain Management from the Town of North Greenbush 10

Table 7: Responses on Floodplain Mapping from the Town of North Greenbush 12

Table 8: Responses on Flood Insurance and Outreach from the Town of North Greenbush..... 12

Table 9: Critical Facilities Located in the Floodplain in the Town of North Greenbush 14

Table 10: Vulnerable Assets in the Town of North Greenbush 16

Table 11: Outreach Activities Undertaken by the Town of North Greenbush..... 17

Table 12: Planning and Regulatory Capabilities of the Town of North Greenbush..... 18

Table 13: Administrative Capabilities of the Town of North Greenbush..... 19

Table 14: Financial Capabilities of the Town of North Greenbush 20

Table 15: Education and Outreach Capabilities of the Town of North Greenbush..... 21

Table 16: Opportunities to Expand and/or Improve the Capabilities of the Town of North Greenbush 23

Table 17: Status of Actions for the Town of North Greenbush in 2019..... 24

Table 18: Proposed New 2025 Mitigation Actions for the Town of North Greenbush 29

Table 19 Mitigation Action Prioritization for the Town of North Greenbush..... 31

Town of North Greenbush Annex

This is the jurisdictional annex for the Town of North Greenbush. The jurisdiction’s governing body passed a formal resolution to participate in updating this multi-jurisdictional hazard mitigation plan (HMP). A copy of its resolution is maintained at the local government offices and at the Rensselaer County Bureau of Public Safety.

Contact Information

Table 1: Contact Information for the Town of North Greenbush

Name	Title	Contact Information
Eric Westfall	Code Enforcement Officer	Phone: 518-283-2714 Email: EWestfall@northgreenbush.org

Introduction

The Town of North Greenbush has a fully integrated approach to hazard mitigation planning and program implementation. Table 2 lists the participants in the 2024 process for updating the HMP.

Table 2: Participants in the Hazard Mitigation Plan Update for the Town of North Greenbush

Name	Title	Jurisdiction
Eric Westfall	Code Enforcement Officer	Town of North Greenbush

Jurisdiction Profile

Location and Land Area

The Town of North Greenbush is located in western Rensselaer County, in the eastern part of New York State. It shares a border with Troy and Brunswick to the north, East Greenbush to the south, Poestenkill and Sand Lake to the east, and the City of Rensselaer and Albany County to the west.

According to the 2020 U.S. Census Bureau, Rensselaer County has a total area of 665 square miles (1,720 km²), of which 652 square miles (1,690 km²) is land and 13 square miles (34 km²) (1.9%) is water. Of that,

the Town of North Greenbush has a total area of 18.91 square miles (48.97 km²), of which 18.55 square miles (48.03 km²) is land and 0.36 square miles (0.94 km²) is water.¹

Population

According to the 2023 U.S. Census Bureau's American Community Survey Five-Year Estimates, the population of the Town of North Greenbush is estimated to be 13,292 persons.²

Demographics

The population of the Town of North Greenbush includes 95.5 males per 100 females (all ages). Persons under 18 years comprise 22.6% of the population, and persons 65 and over comprise 18.8%.³ Young and old subsets of the population may have unique needs as far as care requirements and potential cognitive and/or mobility limitations before, during, and after a disaster.

The portion of the population who speak a language other than English is 5.2%.⁴ Persons not speaking English well may have trouble understanding instructions regarding disaster preparation, response, and recovery.

Of those 25 years old and older, 96.4% are high school graduates or higher, and 44.2% have received their bachelor's degree or higher.⁵ Higher education can help enhance skills associated with cognition and evaluation of risk. Higher education can, therefore, foster an overall improved perception of risk, particularly where individuals may not have prior direct experience preparing for, responding to, or recovering from a particular hazard in their daily lives.

From 2018 to 2022, there were 4,161 total households with 2.97 persons per household.⁶ Persons living alone sometimes have less of a direct social circle for support before, during, and after a disaster.

The Census Bureau classifies all people not living in housing units (house, apartment, mobile home, rented rooms) as living in group quarters. Group quarters may be institutional (correctional facilities, nursing homes, mental hospitals) and non-institutional (college dormitories, military barracks, group homes, missions, shelters). The Census Bureau maintains no information on group quarters for this municipality. The needs of persons living in group quarters are unique, and residents are likely to have access and functional needs and unique care requirements before, during, and after a disaster.

¹ United States Census Bureau. 2025, "2023 American Community Survey.: Town of North Greenbush, Rensselaer County, New York."

<https://data.census.gov/table/ACSDP5Y2023.DP05?q=North+Greenbush+town,+Rensselaer+County,+New+York>

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

According to the 2022 American Community Survey, the median household income of the Town of North Greenbush was \$108,505, and the percentage of persons in poverty was 3.4%.⁷ Lower-income people have limited financial resources to draw from in both a pre- and post-disaster scenarios and are likely to require support as they prepare for and recover from hazard events.

Non-institutionalized civilians with a disability accounted for 11.8%, and people over 65 with a disability accounted for 16.7%. Persons (civilian, non-institutionalized) without health insurance were 3.6% of the population.⁸ Persons with disabilities have access and functional needs, such as cognitive or mobility limitations, that may put them at greater risk before, during, and after a hazard event.

Brief History

The area that is now Rensselaer County was inhabited by the Algonquian-speaking Mohican Indian tribe at the time of European encounter. Kiliaen van Rensselaer, a Dutch jeweler and merchant, purchased the area in 1630 as part of the Dutch colony New Netherland. The land passed from English rule (1664) to Dutch control (1673), then back to English rule (1674), until American independence in 1776. Rensselaer County was created in the 1790s from an area that was originally part of the very large Albany County. In 1807, the county reorganized.⁹

The earliest settlers, in the early 1620s, settled in Bath, a part of the town annexed to Rensselaer in 1902. North Greenbush was part of the Manor of Rensselaerswyck and Albany County prior to Rensselaer County's creation in 1791. North Greenbush was created on February 23, 1855, from the Town of Greenbush at the same time as the town of Clinton (today East Greenbush). At that time, North Greenbush occupied more than it does today: it also covered what is now the northern section of the City of Rensselaer and the southern section of the City of Troy. Some settlement in what North Greenbush is today may have occurred in the 17th century as well, but the most significant early settlement occurred just prior to the US Revolutionary War.¹⁰

Governing Body

The governing body of the municipality consists of a Town Supervisor and four Councilpersons, as well as other department heads. This council serves as the municipal/local government, performing different executive functions. The people elect members of this governing body.

⁷ United States Census Bureau. 2025, "2023 American Community Survey.: Town of North Greenbush, Rensselaer County, New York."

<https://data.census.gov/table/ACSDP5Y2023.DP05?q=North+Greenbush+town,+Rensselaer+County,+New+York>

⁸ Ibid.

⁹ 2020 Rensselaer County Multi-Jurisdictional Hazard Mitigation Plan, "Town of North Greenbush Annex Brief History"

¹⁰ Ibid.

Growth and Development Trends

Performing an assessment of growth and development trends is one step of a hazard mitigation plan update. This look into the future is important because development in hazard areas could put more people and property in harm's way and, in turn, could increase potential disaster-related damage and losses at a time when the mitigation plan's purpose is to reduce the potential for damage from natural disasters.

An evaluation of growth and development trends was undertaken by each participating jurisdiction as part of the development of the initial plan in 2011. As part of this plan update, the Town of North Greenbush reviewed and updated its prior feedback to reflect current conditions in the community as of early 2019.

The Town of North Greenbush enforces laws to protect new development from the effects of natural hazards. The Building Inspector and Consulting Engineer and the Planning Board are responsible for reviewing all proposed building projects to ensure compliance before approval is granted, which includes adherence to the Town's Flood Damage Prevention and Storm Water Management Code.

The Town of North Greenbush employs a full-time building inspector and code enforcement officer, a fire inspector, and a part-time utilities inspector. A consulting engineer provides required engineering assistance to the Planning Board and Zoning Board of Appeals on all development projects. The Town's Comprehensive Plan was updated to comply with required building and fire safety codes and stormwater management criteria. Town staff ensure compliance with various building and fire safety and stormwater management codes prescribed by federal, state, and town regulations. They also ensure that building projects as well as existing establishments remain in compliance. The utilities inspector oversees installation of municipal water and sewer infrastructure and, along with the highway superintendent, ensures compliance with MS-4 regulations. The town now maintains 18 separate stormwater drainage ponds that were required as part of subdivision approvals.

Hazard Identification

The Calculated Priority Risk Index (CPRI) is a comprehensive assessment tool used to evaluate and prioritize risks in a given context. It considers various factors, such as probability, impact, and urgency, to determine the level of risk associated with particular events or situations. By considering these variables, the CPRI helps organizations and individuals make informed decisions about risk management and mitigation strategies. It provides a systematic approach to identifying and addressing potential issues, allowing for more efficient allocation of resources and proactive risk prevention. With the CPRI, stakeholders can prioritize their focus on the most critical risks, leading to more effective risk management and, ultimately, better outcomes. Table 3 shows the factors for calculating the CPRI.

Table 3: Factors in the Calculated Priority Risk Index

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
Probability What is the likelihood of the hazard occurring?	1	Unlikely	Less than 1% probability of occurrence in the next year or a recurrence interval of greater than every 100 years.	30%
	2	Occasional	1%–10% probability of occurrence in the next year or a recurrence interval of 11–100 years.	
	3	Likely	11%–90% probability of occurrence in the next year or a recurrence interval of 1–10 years.	
	4	Highly Likely	91%–100% probability of occurrence in the next year or a recurrence interval of less than 1 year.	
Potential Consequences What will be the overall impact in terms of injuries, damage, death, continuity of operations, and environmental and economic impacts?	1	Negligible	Very few injuries, if any. Only minor property damage and minimal disruption of quality of life. Temporary shutdown of critical facilities.	30%
	2	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	
	3	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities more than one week.	
	4	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for 30 days or more.	
	1	Self-defined	More than 24 hours	10%

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
Warning Time How long between when it is recognized the hazard is approaching and when the hazard will begin to affect the community?	2	Self-defined	12–24 hours	
	3	Self-defined	6–12 hours	
	4	Self-defined	Less than 6 hours	
Duration What is the length of time the hazard will remain active, including how long emergency operations will need to continue after the hazard event?	1	Brief	Up to 6 hours	10%
	2	Intermediate	Up to one day	
	3	Extended	Up to one week	
	4	Prolonged	More than one week	
Spatial Extent How large of an area could be impacted by a hazard event? Are impacts localized or regional?	1	Negligible	Less than 1% of area affected	20%
	2	Small	1%–25% of area affected	
	3	Moderate	25%–50% of area affected	
	4	Large	Greater than 50% of area affected	

RISK FACTOR EQUATION

$$RF \text{ Value} = [(Probability \times .30) + (Magnitude \times .30) + (Onset \times .10) + (Duration \times .10) + (Frequency \times .20)]$$

Table 4 presents the CPRI for the Town of North Greenbush with respect to the different hazards the jurisdiction might experience.

Table 4: Types of Hazard Events with Calculated Priority Risk Index for the Town of North Greenbush

Type of Hazard Event	Probability	Potential Consequences	Warning Time	Duration	Spatial Extent	Risk Factor Value
Drought	1	1	1	4	2	1.5
Earthquake	2	2	4	1	2	2.1
Extreme Temperature	3	2	2	2	4	2.7

Type of Hazard Event	Probability	Potential Consequences	Warning Time	Duration	Spatial Extent	Risk Factor Value
Flooding (Including Dam Failure and Ice Jams)	3	2	2	3	3	2.6
Hazardous Materials	1	1	4	1	2	1.5
High Wind	3	2	4	1	2	2.4
Hurricane or Tropical Storm	1	2	2	2	4	2.1
Landslide	1	1	4	1	2	1.5
Lightning	3	2	4	1	2	2.4
Terrorism	1	3	4	1	2	2.1
Tornado	2	3	4	1	2	2.4
Utility & Infrastructure Failure	2	2	4	3	2	2.3
Wildfire	1	2	4	1	2	1.8
Winter Storm (Including Ice Storm and Snowstorm)	3	2	2	2	4	2.7

Hazard Event History

Understanding hazard event histories is crucial for effective risk management. Analyzing past events allows us to identify trends, patterns, and recurring risk factors. This knowledge enables us to better prepare for and mitigate the impact of future hazards. Examining hazard event histories provides valuable insights to inform decision-making and help prioritize resources for risk prevention and response efforts. Table 5 lists some of the more notable events in the Town of North Greenbush since 2020.

Table 5: Notable Hazard Events in the Town of North Greenbush Since 2020

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Drought	None	None	None	None
Earthquake	None	04/05/2024	No reported impacts	Earthquake with epicenter in NJ, felt in some parts of the county
Extreme Temperature	None	08/12/2021	Heat indices of 95°F–104°F across parts of the Hudson River from Albany and points southward reaching 105°F–110°	Extreme Heat
	None	02/03/2023–02/04/2023	Warming centers were opened	Arctic Cold: with extreme wind chills and some squalls; temperatures ranging from -18°F to -39°F, with wind gusts up to 44 mph
Flooding (Including Dam Failure and Ice Jams)	None	None	None	None
Hazardous Materials	None	None	None	None
High Wind	None	None	None	None
Hurricane or Tropical Storm	None	None	None	None
Landslide	None	None	None	None
Lightning	None	None	None	None
Terrorism	None	None	None	None
Tornado	None	None	None	None
Utility or Infrastructure Failure	None	05/22/2024	Boil water notice to residents	Water main break on Taylor Lane, affecting North Greenbush

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Wildfire	None	None	None	None
Winter Storm (Including Ice Storm and Snowstorm)	None	12/15/2022–12/17/2022	N/A	Nor'easter, with snowfall ranging from 1 in to 12 in
	None	03/13/2023–03/15/2023	Downed trees and power lines with widespread power outages	Nor'easter, with heavy wet snow and accumulations from 12 in in North Greenbush.
	None	03/22/2024–03/23/2024	State of emergency declared due to significant power outages throughout county—many trees and power lines down. This led to many road closures throughout the county.	Long period of rain, followed by freezing rain, sleet, and freezing temperatures; up to 0.5 in ice and 4–11.5 in of snow.

According to the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI), there were no recorded notable events for the Town of North Greenbush since 2020 included the database.¹¹

National Flood Insurance Program (NFIP) Summary

The National Flood Insurance Program (NFIP) is a Federal Emergency Management Agency (FEMA) program that provides flood insurance to millions of policyholders across the country. The following information is provided to meet federal standards. The Town of North Greenbush answered the NFIP questions in Table 6 through Table 8 to the best of its ability.

Table 6: Responses on Floodplain Management from the Town of North Greenbush

Question	Response
Who is the floodplain manager? Is this their primary or secondary role?	Eric Westfall, who is also the Town Engineer and Stormwater Management Officer. Changes to the plan are being considered to address FEMA changes.
Does the floodplain manager have adequate training and capacity for their role? If not, what else is needed?	Additional assistance and expertise is required. Continuing with training as classes are available and assistance from consultants. Changes and updates to the floodplain management program are under consideration.
How does the community enforce its floodplain rules? Does enforcement include monitoring compliance and acting to correct violations?	Through design reviews, board approvals, inspections and the issuance of permits. Code Chapter 99, "Flood Damage Prevention" adopted 03/26/87, remains in effect, but changes are being considered.
When was the community's most recent Community Assistance Visit (CAV)?	Unknown
Were any violations noted on the community's most recent CAV?	N/A
Is there an upcoming CAV? If no, is one needed?	No
When was the most recent floodplain management ordinance adopted?	03/26/87 Code Chapter 99, "Flood Damage Prevention" adopted 03/26/87, remains in effect, but changes are being considered.

¹¹ National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI). 01/01/2020–09/30/2024. "Town of North Greenbush, Rensselaer County, New York." https://www.ncdc.noaa.gov/stormevents/listevents.jsp?eventType=ALL&beginDate_mm=01&beginDate_dd=01&beginDate_yyyy=2020&endDate_mm=12&endDate_dd=30&endDate_yyyy=2024&county=RENSELAER%3A83&hailfilter=0.00&tornfilter=0&windfilter=000&sort=DT&submitbutton=Search&statefips=36%2CNEW+YORK

Question	Response
Does your community participate in the Community Rating System (CRS)? If so, describe the steps the community has taken to achieve the CRS goals.	No
Does the community's floodplain management ordinance include any higher standards? If so, please list.	No
Who is responsible for permitting?	Building Department (local administrator)
How does the community issue development permits in the special flood hazard area?	Per Chapter 99 of Code depending on type of proposed construction. Code Chapter 99, "Flood Damage Prevention" adopted 03/26/87, remains in effect, but changes are being considered.
Does the community maintain elevation certificates?	Yes
Does the community track the number of buildings in the special flood hazard area? If yes, are there any trends?	No
How many repetitive loss (RL) structures does the community have? (List number and type of structure)	None
How many severe repetitive loss (SRL) structures does the community have? (List number and type of structure.)	None
Have any RL/SRL properties been mitigated since the last plan update?	No
Who is responsible for making substantial damage/substantial improvement determinations?	The Building Department initiates determination with assistance from third party, as required.
How does the substantial damage/substantial improvement process work in your community?	There has yet to be an instance where it has been applied.
Is there sufficient staff and training to make substantial damage/substantial improvement determinations?	Yes, with third-party supplementation on an as-needed basis.
How are substantial damage/substantial improvement requirements messaged to the public before and after an event?	Through the Planning Board process, Zoning Appeals and the Town Code.

Question	Response
Have any substantially damaged/substantially improved structures been mitigated since the last plan update?	No
How will the community remain in compliance with the NFIP moving forward? (Simply stating "the community will continue to comply with the NFIP" will not meet FEMA's planning requirements.)	Through the permitting process and public outreach and education and with an update the Chapter 99 of the Town Code.

Table 7: Responses on Floodplain Mapping from the Town of North Greenbush

Question	Response
How does the community support map change requests? This could be requests during the Risk MAP process or through Letters of Map Amendment or Revision.	Based on a recent continuing education class the Town would favor the LOMA or LOMA-R process.
When did the latest Flood Insurance Rate Map (FIRM) become effective?	11/06/2019 (361164)
When was the latest FIRM adopted?	No—pending
Is the FIRM and Flood Insurance Study (FIS) report in an accessible location? How would the public get access to their flood map information?	Through the FEMA website titled "The Flood Insurance Study for the Town of North Greenbush of Rensselaer County," dated 06/16/80.
Does the community use any Risk MAP products? If so, describe.	FEMA mapping
Does the community collect updated floodplain data or modeling? Is this shared with partners and with FEMA?	No
Other comments?	None

Table 8: Responses on Flood Insurance and Outreach from the Town of North Greenbush

Question	Response
How does the community educate the public on floodplain management and the availability of flood insurance, in and out of the floodplain?	Through the permitting and planning process as well as the public hearing process associated with any town board changes to local laws.
How does the community engage with insurance agents on flood insurance?	Privately

Question	Response
Does the community (or state) have flood hazard disclosure laws?	Chapter 99-2, Objective G: "Provide that developers are notified that property is in an area of special flood hazard."
How familiar is the public with their flood insurance options?	Minimally
How many properties have flood insurance in the community?	Unknown, but the town is receiving questions from residents, particularly along the Wynantskill Creek, regarding demands now being placed on them by insurers.
Are there any areas where flood insurance is lacking?	Potentially the Wynantskill Creek Floodplain
Other comments?	None

Critical Facilities Information

The following information is provided to meet standard F1. Identifying critical facilities in flood-prone areas is crucial for effective emergency planning and risk management. By understanding the potential impact of flooding on these facilities, local authorities can develop proactive strategies to mitigate risks and ensure the safety and functionality of these important assets during flood events. This information is valuable for decision-making and prioritizing resources for emergency response and preparedness efforts. Table 9 lists the critical facilities (emergency facilities, critical infrastructure and utilities, and other key facilities, as presented in Risk Assessment) that are in the floodplain in the Town of North Greenbush.

Table 9: Critical Facilities Located in the Floodplain in the Town of North Greenbush

Critical Facility	Type of Facility	Jurisdiction	1% Chance? Zone AE	0.2% Chance? Zone X (Shaded)	How has this facility been protected from flooding?	Feasibility of Mitigating Flood Risk
Troy Armory	Airports	Town of North Greenbush	No	No	Unknown	Unknown
WHRL CH 276	Communications	Town of North Greenbush	No	No	Unknown	Unknown
WRPI CH 218	Communications	Town of North Greenbush	No	No	Unknown	Unknown
Defreestville Volunteer Fire Department	Fire Stations	Town of North Greenbush	No	No	Unknown	Unknown
Wynantskill Fire Department	Fire Stations	Town of North Greenbush	No	No	Unknown	Unknown
Family Medical Group	Medical Care	Town of North Greenbush	No	No	Unknown	Unknown
Van Rensselaer Manor	Medical Care	Town of North Greenbush	No	No	Unknown	Unknown
North Greenbush Town Police Department	Police Stations	Town of North Greenbush	No	No	Unknown	Unknown
Bell Top School	Schools	Town of North Greenbush	No	No	Unknown	Unknown
Gardner-Dickinson School	Schools	Town of North Greenbush	No	No	Unknown	Unknown
La Salle Institute	Schools	Town of North Greenbush	No	No	Unknown	Unknown

Critical Facility	Type of Facility	Jurisdiction	1% Chance? Zone AE	0.2% Chance? Zone X (Shaded)	How has this facility been protected from flooding?	Feasibility of Mitigating Flood Risk
North Greenbush School	Schools	Town of North Greenbush	No	No	Unknown	Unknown
Robert C Parker School	Schools	Town of North Greenbush	No	No	Unknown	Unknown
Saint Jude The Apostle School	Schools	Town of North Greenbush	No	No	Unknown	Unknown
Vanderheyden Hall	Schools	Town of North Greenbush	No	No	Unknown	Unknown

Jurisdiction/Public Identified Vulnerabilities

Table 10 provides crucial information on critical facilities in the Town of North Greenbush, highlighting the town’s vulnerability to identified hazards. It outlines the susceptibility of assets to damage from the identified hazards, offering valuable insights into their potential impact on these essential facilities. By understanding the risks to these assets, local authorities can develop proactive strategies to mitigate the vulnerabilities and ensure the safety and functionality of these important assets during hazard events. This data is invaluable for decision-making and prioritizing resources for emergency response and preparedness efforts, ultimately contributing to more effective risk management and building the resilience of the community.

Table 10: Vulnerable Assets in the Town of North Greenbush

Vulnerable Assets	What makes this group/asset vulnerable during hazards? Have there ever been issues with recovery after an event?
People (residents, workers, visiting populations, and socially vulnerable populations like seniors, individuals with disabilities, lower-income individuals, etc.)	
Residents, businesses and workers along the Wynantskill Creek	Wynantskill Creek runs through a floodplain along Main Street, and the stream has little freeboard. The upstream watershed area makes flooding a distinct possibility during winter melting and thunderstorms. Recovery after flooding events is generally quick on a town-wide scale but can be slower for individual houses more substantially impacted. Elderly residents and those with limited mobility are also vulnerable.
Structures (residential, commercial, industrial, government-owned, planned capital improvement, etc.)	
Residents, businesses, and workers along the Wynantskill Creek	Flood damage along Wynantskill Creek can typically cause minor to moderate structural damage, particularly in basements.
Economic Assets (major employers, primary economic sectors, key infrastructure like telecommunications networks, etc.)	
Infrastructure	High wind, snow, or ice events can cause damage to infrastructure, particularly power, with economic impacts to local businesses. Winter storms can hamper transportation and delivery or receipt of goods and materials.
Natural, Historic, and Cultural Resources (areas of conservation, beaches, parks, critical habitats, community centers, historic places, etc.)	

Vulnerable Assets	What makes this group/asset vulnerable during hazards? Have there ever been issues with recovery after an event?
Snyders Lake	Poor sanitary infrastructure has caused water quality issues for residents and users of Snyders Lake. Sanitary infrastructure has been substantially upgraded, and contamination of water has been nearly eliminated, with only minimal risk during high-volume storm events. There are potential water quality issues from runoff during high-volume storm events.
Critical Facilities and Infrastructure (hospitals, law enforcement, water, power, transportation systems, etc.)	
Town Hall	When used as shelter during a hazard event, it is occasionally susceptible to flooding and power outages.
Community Activities (major local events, such as festivals, or economic events, like farming or fishing)	
Snyders Lake	Stormwater drainage into the lake may affect recreational use of lake.
Are there any other assets that you can think to include?	
N/A	N/A

Additional Public Involvement

As part of this 2025 plan update, the Town of North Greenbush undertook various activities to (a) alert the public and other stakeholders to the fact that the HMP Planning Committee was developing the update and (b) provide the public and other stakeholders with a forum to ask questions and submit comments and suggestions on the process. Table 11 presents the outreach activities undertaken by the Town of North Greenbush for the 2025 plan update.

Table 11: Outreach Activities Undertaken by the Town of North Greenbush

Activity Date	Type of Activity	Activity Details	Department and/or Staff Member
April 2024–September 2024	Survey	Posted survey on social media and website; posted flyers in library, town offices, and local businesses	Town Supervisor’s Office

Capabilities Assessment

Local mitigation capabilities are essential for reducing the impact of hazards on communities. Local authorities can effectively mitigate hazards by leveraging existing authorities, policies, programs, and resources. These capabilities encompass a range of strategies, such as land use planning, building codes and enforcement, public education and outreach, infrastructure protection, and natural resource protection. Through collaboration with various stakeholders, including emergency management agencies, public works departments, and environmental organizations, local communities can implement comprehensive mitigation efforts to minimize the impact of disasters. Table 12 through Table 15 provide the capabilities of the Town of North Greenbush.

Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards.

Table 12: Planning and Regulatory Capabilities of the Town of North Greenbush

Regulatory Tool (Code, Ordinance, Plan)	In Place (Y or N)	How has or could this resource be used for hazard mitigation?
Building code	Y	Defines roles and standards for hazard mitigation.
Zoning ordinance	Y	Some use in proposed development, particularly in floodplain.
Subdivision ordinance or regulations	Y	Planning Board approval of site plans identifies several hazards to be addressed during design.
Special purpose ordinance (floodplain management, stormwater management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	Y	Planning Board, Stormwater Pollution Prevention Plan (SWPPP) review, and mapping used as tools. Looking to expand on mapping. Limited space remaining to develop in flood-prone areas.
Growth management ordinances (also called “smart growth” or anti-sprawl programs)	Y	Board reviews incorporate comprehensive plan to regulate development.
Site plan review requirements	Y	Reviewed by Town Board and Stormwater Management Officer to identify potential impacts, particularly from stormwater.
General, comprehensive, or master plan	Y	Will control development characteristics.

Regulatory Tool (Code, Ordinance, Plan)	In Place (Y or N)	How has or could this resource be used for hazard mitigation?
Capital improvements plan	Y	Infrastructure upgrades to manage stormwater and growth characteristics.
Economic development plan	Y	Used to help determine the best overall use for development relating to economic impacts.
Emergency response plan	Y	Used to address hazard management and mitigation.
Post-disaster recovery plan	Y	Unknown
Post-disaster recovery ordinance	N	N/A
Real estate disclosure requirements	N	N/A
Other	N/A	N/A

Administrative and Technical

Administrative and technical capabilities include staff and their skills.

Table 13: Administrative Capabilities of the Town of North Greenbush

Staff/Personnel Resources	Available (Y or N)	How has or could this resource be used for hazard mitigation?
Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Approval of land development with, most significantly, stormwater management considerations.
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Identification of potential hazards and steps to mitigate.

Staff/Personnel Resources	Available (Y or N)	How has or could this resource be used for hazard mitigation?
Planners or engineer(s) with an understanding of natural and/or human-caused hazards	Y	Identification of hazards to be addressed during design and construction or identified post-construction for resolution.
Floodplain manager	Y*	Seeking to proactively identify hazard areas and minimize potential impact through approval and inspection process.
Surveyors	Y	Verify elevations when necessary.
Staff with education or expertise to assess the community's vulnerability to hazards	Y	Review policies and update as required to minimize potential impact of hazards.
Personnel skilled in GIS and/or HAZUS	N	In conjunction with SPDES GP for MS-4, the town is integrating to a more GIS-based mapping system.
Scientists familiar with the hazards of the community	N	Potential public interest and input in items such as Climate Smart Community program.
Emergency manager	Y	Ongoing training for management, particularly following hazard event.
Grant writers	Y	Potential funding for hazard management, particularly stormwater.
Staff with expertise or training in benefit/cost analysis	Y	Allocation of resources where most beneficial to address hazards.

Financial

Financial capabilities are the resources to fund mitigation actions.

Table 14: Financial Capabilities of the Town of North Greenbush

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)	How has or could this resource be used for hazard mitigation?
Community Development Block Grant (CDBG)	Yes, but they have concluded	Unknown
Capital improvements project funding	Yes	Used to improve infrastructure and other items that aid in hazard reduction.

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)	How has or could this resource be used for hazard mitigation?
Authority to levy taxes for specific purposes	Yes	Taxes or fees used to fund programs associated with hazard reduction or mitigation.
Fees for water, sewer, gas, or electric service	Yes	Used to fund Utilities Department maintenance of infrastructure items.
Impact fees for homebuyers or developers for new developments/homes	Yes	Fees in several categories collected for new units to be applied to various fund accounts for mitigation of hazards.
Incur debt through general obligation bonds	Yes	Used to fund programs to reduce or mitigate hazards.
Incur debt through special tax and revenue bonds	Yes	Used to fund programs to reduce or mitigate hazards.
Incur debt through private activity bonds	Yes	Used to fund programs to reduce or mitigate hazards.
Withhold spending in hazard-prone areas	Yes	Manage risk through financial measures.
State mitigation grant programs	No	N/A
Other state and federal grants	N/A	N/A

Education and Outreach

Education and outreach capabilities are programs and methods that could communicate about and encourage risk reduction.

Table 15: Education and Outreach Capabilities of the Town of North Greenbush

Education and Outreach Capability	In Place (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Community newsletter(s)	No	N/A	Considering a newsletter as part of the Stormwater Management Program Plan (SWMP plan), which could be expanded to other hazards.

Education and Outreach Capability	In Place (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs)	Y	Yes	Awareness campaigns aim to mitigate hazards through education and information to better allow residents to identify and prepare for hazards.
Public meetings/events (Please describe.)	Y	Yes	Discussions at Town/Planning/Zoning Board meetings often involve details related to various project hazards and the steps that are taken to minimize or mitigate hazards.
Emergency management listserv	Y	Yes	Addressed through the Public Safety Committee.
Local news	Y	No	<i>Troy Record</i> is the paper of record for North Greenbush.
Distributing hard copies of notices (e.g., public libraries, door-to-door outreach)	Y	Yes	Particularly through the SWMP plan MCM 1 and Stormwater Management Program.
Insurance disclosures/outreach	N	N/A	N/A
Organizations that represent, advocate for, or interact with underserved and vulnerable communities (Please describe.)	N	N/A	N/A
Social media (Please describe.)	Y	No	Town of North Greenbush Facebook page allows for postings. The town is considering a non-response social media platform for posting of materials.
Other (Please describe.)	N	N/A	N/A

Opportunities to Expand and/or Improve Capabilities

Table 16 presents opportunities for the Town of North Greenbush to expand or improve capabilities.

Table 16: Opportunities to Expand and/or Improve the Capabilities of the Town of North Greenbush

Capability Type	Opportunity to Expand and/or Improve
Planning and Regulations	<ul style="list-style-type: none"> The town would like to better manage the flow and flooding potential for the Wynantskill Creek, which parallels Main Street. Main Street is one of the active business hubs in the town, but it occasionally floods. The town is seeking to gain jurisdictional approval of work within the Wynantskill Creek to improve flow and reduce flooding risks.
Administrative and Technical	<ul style="list-style-type: none"> The town has hired some part-time resources and is looking to add additional staff or engineering personnel to better manage its floodplain and stormwater management Plans.
Financial	<ul style="list-style-type: none"> The lack of dedicated resources and budget prevent further progress in these important areas. Following a major disaster declaration, the town would apply for eligible hazard mitigation funding.
Education and Outreach	<ul style="list-style-type: none"> The town is looking to incorporate more public outreach and education into events (a booth or table at food truck night, for example). As an MS4 (Municipal Separate Storm Sewer Systems) community, the town is already required to provide information but can add additional primers to be distributed at events.

Mitigation Strategy

Table 17 presents details about the 2019 mitigation actions. Table 18 presents the actions in the 2025 update, and Table 19 shows the prioritization of the mitigation actions.

Table 17: Status of Actions for the Town of North Greenbush in 2019

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title)	Status Update
NG-1	Wetlands Restoration – Wynantskill Creek Wetlands Restoration at Jack’s Drive-in. Create public fishing access area that can be regularly dredged to abate silt buildup.	Silt-prone areas cause private property flooding and water quality issues.	Dredge waterway and create town public fishing area.	Town Board/Highway Department/Highway Superintendent	Not Complete – Lack of funding has prevented this work from progressing. Additionally, there are substantial permitting issues associated with New York Department of Environmental Conservation (NYS DEC) approval. Some localized minor post-storm stream work permitted by NYS DEC.
NG-2	Stormwater Management – Douglas and Pine Streets. Replace 30-year-old galvanized culvert pipe.	Current Stormwater infrastructure ineffective in flooding events	Replace 30-year-old galvanized culvert pipe.	Town Board/Highway Department/Highway Superintendent	Not Complete – Lack of funding has prevented this work from being completed. Some less-costly stormwater management work was completed adjacent to this area.
NG-3	Disaster Preparedness – Continue to improve disaster preparedness and continuity of government operations.	Ensure the Comprehensive Emergency Management (CEM) Plan is up to date and staff are	Review and update CEM Plan as necessary and coordinate with county and other public and private entities.	Town Board and all Town Staff	Continuous effort. The town has developed a procedure to utilize Town Hall as a shelter in times of need and has developed an emergency plan for incidents that could impact the Summer Camp Program.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title)	Status Update
		cognizant of emergency duties.			
NG-4	Stormwater Management – Red Oak Lane. Conduct stormwater drainage engineering analysis to repair/improve upper drainage that is causing flooding to private property.	Property flooding due to aged infrastructure.	Retain services of engineering firm to prepare stormwater analysis and recommendations to upgrade infrastructure.	Town Board/Highway Department/Highway Superintendent	The town is working with developers in this area to manage stormwater discharge as part of their Stormwater Pollution Prevention Plan (SWPPP) design. It also works with the City of Rensselaer on this drainage course.
NG-5	Stormwater Management – Snyder’s Lake. Remove silt buildup from the lake that is causing flooding.	Silt buildup is causing poor drainage, flooding, and water quality issues.	Remove silt from Lake in identified flood prone areas	Highway Department/Highway Superintendent	Effort is idle pending funding, design, and permitting approval.
NG-6 (new)	Establish Town Stormwater Committee	Improvement of coordination of prevalent management issues needed, floodplain map updates needed, and training and certification needed, when necessary, in accordance with	Monitor ongoing projects, coordinate inter-municipal efforts, and enhance community public awareness.	Town Board/Building Department/Building Inspector	The Stormwater Management Officer has developed a stormwater community for residents interested in stormwater issues. The town is an MS-4, and Minimum Control Measure 1 (MCM 1) addresses public outreach. The town has formed a Climate Smart Committee that is working through the approval process based on climate-positive actions.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title)	Status Update
		federal and NYS Municipal Separate Storm Sewer System (MS-4) regulations.			
NG-CL-1	Public Awareness Program on Hazards, Prevention, and Mitigation. County will maintain a mitigation planning web presence to support joint annual hazard mitigation requirements, assist with periodic meetings, and provide public information support incorporating FEMA publications and other appropriate sources.	Enhance hazard mitigation activities needed to improve public awareness of hazards	County-coordinated action team for plan update and public awareness.	County/Town Board/Building Department/Building Inspector	The town provides updates on planning issues as part of the monthly Town Board and Planning Board meetings, where applicable. Stormwater issues are addressed through community outreach, SWPPP approval, and planning.
NG-CL-2	Code Update: Ensure existing local codes and ordinances are current to address identified hazards.	Need for maintaining codes and ordinances to augment town emergency management requirements.	Existing codes and ordinances remain applicable and will continue to be reviewed in coordination with the county.	Town Board/Building Department/Building Inspector	Local codes have been reviewed and are considered substantially applicable. Codes are updated periodically to reflect changes based on national design parameters and codes. The town Stormwater Management Program Plan (SWMP) is updated annually for stormwater issues.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title)	Status Update
NG-CL-3	Attend periodic workshops and training sessions for municipalities regarding planning and zoning issues related to hazard mitigation and maintaining enforcement certifications.	Need to ensure currency of planning and zoning to enhance hazard mitigation.	The town will continue to attend all relevant county workshops and training sessions.	Town Board/Building Department/Building Inspector	The Town Engineer and Building Department staff regularly attend continuing education workshops, and additional training is locally administered.
NG-CL-4	Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review of draft plans by the County Planning Department. (Prevention)	Need to ensure comprehensive plans are consistent with mitigation priorities.	The town will continue to participate in a county-led effort.	Town Board/Building Department/Building Inspector	The town previously adopted a CEM Plan using the State Consumer Exposure Model Plan, which incorporates natural disaster mitigation techniques. Planning Board and other items were sent to the Principal Planner at Rensselaer County Economic Development and Planning.
NG-CL-5	Hold periodic workshops for municipalities regarding zoning and planning issues that arise for natural hazards and mitigation.	Need to ensure town codes are consistent with mitigation priorities.	Town will continue to participate in county-led effort.	Town Board/Building Department/Building Inspector	Town employees attend meetings and workshops when available and as applicable to work scope.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title)	Status Update
NG-NFIP-1	Update floodplain management ordinance to comply with latest FEMA regulations.	Need to ensure ordinance is applicable to floodplain regulations.	Town will update town ordinance as necessary when applicable.	Town Board/ Supervisor	Original ordinance from 1987 is being updated with mapping and other FEMA considerations as applicable.
NG-NFIP-3	Add/train sufficient members of staff to adequately enforce NFIP regulations and floodplain management ordinance.	Need to ensure staff are adequately on current regulations	Town will continue to ensure staff receive appropriate training and maintain annual certification.	Town Board/ Supervisor	Town enforcement staff maintain certifications as applicable.
NG-NFIP-4	Update/revise floodplain management ordinance for consistency with new FIRMs.	Need to maintain currency of ordinance with FIRMs.	Town will ensure ordinance is current.	Town Board/ Building Department/ Building Inspector	Town is in the process of updating ordinances to reflect FIRMs.

Table 18: Proposed New 2025 Mitigation Actions for the Town of North Greenbush¹²

Jurisdiction	Project #	Project Name	Action Worksheet (Yes/No)	Goal/ Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
Town of North Greenbush/ NYSDEC (Stream AHJ)	1	Wynantskill Creek Flooding	No	Protect Existing Assets	Flooding	Historic deposit of gravel and other suspended material has resulted in the gradual rise of stream bed elevation and the ability of the stream to handle storm and seasonal runoff, resulting in localized flooding along the Route 66 (Main Avenue) corridor in North Greenbush. The floodplain for this section of stream has recently been updated by FEMA flood mapping, resulting in approximately 175 new structures added to the flood zone (preliminary map revision).	Modify the section of the stream near Hannaford on Main Avenue (42°41'49.64"/73°39'05.44"), which is a sharp turn in the stream that slows water and allows suspended material to drop and further clog the stream. Options involve removing deposited material and eliminating part of an oxbow so that the stream velocity can be maintained, allowing the stream to naturally lower the streambed, or otherwise mechanically altering stream.	Town of North Greenbush Highway Department to complete work. Laberge Group, engineering consultant. NYSDEC – Permitting.	Potentially. Sanitary Sewer pump station located in the vicinity—being verified as part of preliminary engineering.	Potentially	New FEMA flood mapping may allow work to now be performed in stream. Engineering and permitting during 2025 and construction late 2025 or 2026.	Smaller-scale option considered at \$100,000–\$500,000	Substantial reduction in flooding potential, likely minimization of flooding impacts on some infrastructure, economic relief to residents along Wynantskill Creek related to insurance (many residents along the stream would be substantially burdened with higher insurance costs).	Town of North Greenbush, Rensselaer County. Town is also beginning the process of seeking grant funds for engineering, permitting, and work.	High
North Greenbush	2	SWMP Plan MCM 1 Public Outreach and Education	No	Promote Resilient New Development	Flooding	Public is often unaware of the impacts of poor stormwater management practices on stormwater volume and quality.	In conjunction with the NYSDEC and EPA (and an ongoing EPA audit), the town continues to revise its SWMP for the MS4 to better facilitate public education.	Town of North Greenbush	No	No	Ongoing. Revised SWMP completed by January 2025.	\$10,000	Reduction in localized adverse stormwater impacts by educating residents and business owners of the benefits of small-scale stormwater BMPs.	FMA, BRIC	Medium
North Greenbush	3	Town Code Education	No	Promote Resilient New Development	Drought, Earthquake, Extreme Temperature, Flooding, Hazardous Materials, High	Design codes are frequently updated to address changing conditions, and the Building Department and Planning Board must be aware of these changes	Continuing education and training	Town of North Greenbush Building Department, Town of North	No	No	1–2 years	\$20,000	Safer construction and planning; less prone to adverse	HMGP, BRIC	Medium

¹² AHJ = Authority Having Jurisdiction, BMP = Best Management Practices, BRIC = Building Resilient Infrastructure and Communities, EPA = Environmental Protection Agency, FMA = Flood Mitigation Assistance, HMGP = Hazard Mitigation Grant Program, MCM = Minimum Control Measures, MS4 = Municipal Separate Storm Sewer Systems, NYSDEC = New York State Department of Environmental Conservation, SWMP = Stormwater Management Program Plan

Jurisdiction	Project #	Project Name	Action Worksheet (Yes/No)	Goal/ Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
					Wind, Hurricane/ Tropical Storm, Landslide, Lightning, Terrorism, Tornado, Utility and Infrastructure Failure, Wildfire, Winter Storm	when reviewing construction documents.		Greenbush Planning Board					environmental impacts		
North Greenbush	4	Highway Department Practices	No	Improve Capabilities	Wildfire, Winter Storm, Hurricane/ Tropical Storm, High Wind	Growth in the vicinity of infrastructure can cause outages and loss of service.	Highway Department engaging in proactive clearing of vegetation and removal of accumulated debris (including soils) and other natural elements that may adversely impact infrastructure during storm events.	Town of North Greenbush Highway Department	No	No	1 year	\$50,000	Continued operation of infrastructure	HMGP, BRIC	Medium

Table 19 Mitigation Action Prioritization for the Town of North Greenbush

#	Social	Technical	Administrative	Political	Legal	Economic	Environmental	Priority
1	4	3	3	4	3	3	3	High
2	4	3	2	3	3	3	2	Medium
3	3	2	3	3	3	3	3	Medium
4	3	3	2	3	3	3	2	Medium