



Northern Virginia Hazard Mitigation Plan

Annex 7-A: Town of Clifton

November 2022



Town of Clifton Overview

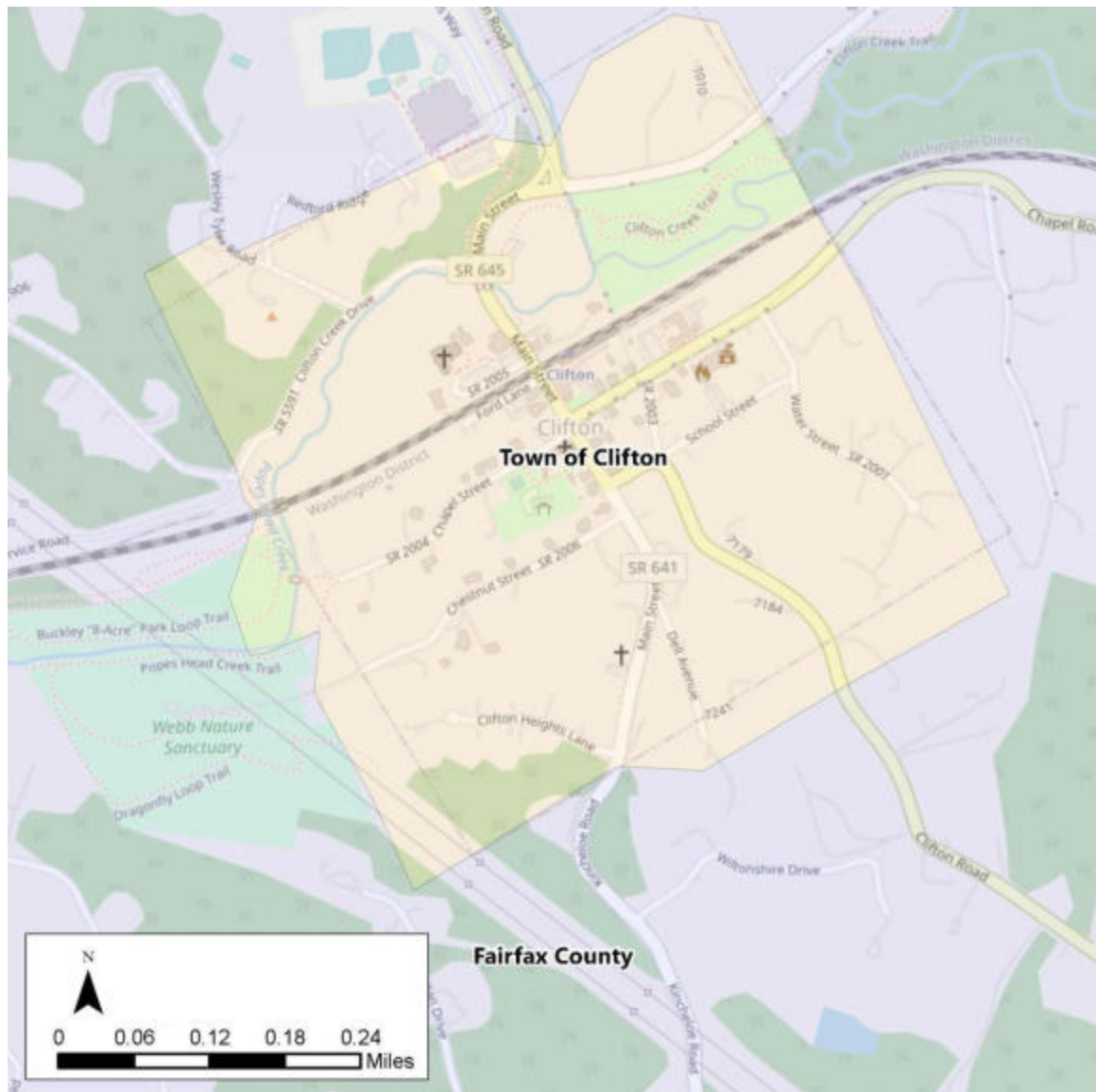








Table 1: Specific Jurisdictional Data

 ESTABLISHED	 LAND AREA	 2020 POPULATION	 GOVERNMENT ADDRESS	 HOUSEHOLDS	 MITIGATION FOCUS
1902	0.25 sq. mi.	243	P.O. Box 309, Clinton, VA 201124	+/- 90	High Wind/Severe Storms and Winter Weather

Town of Clifton Risk Environment

The following is a snapshot of the details in this annex. The well-researched details form the basis of effective mitigation strategies to improve community resilience.

Hazard Event History

National Centers for Environmental Information (NCEI), 1950–June 2021

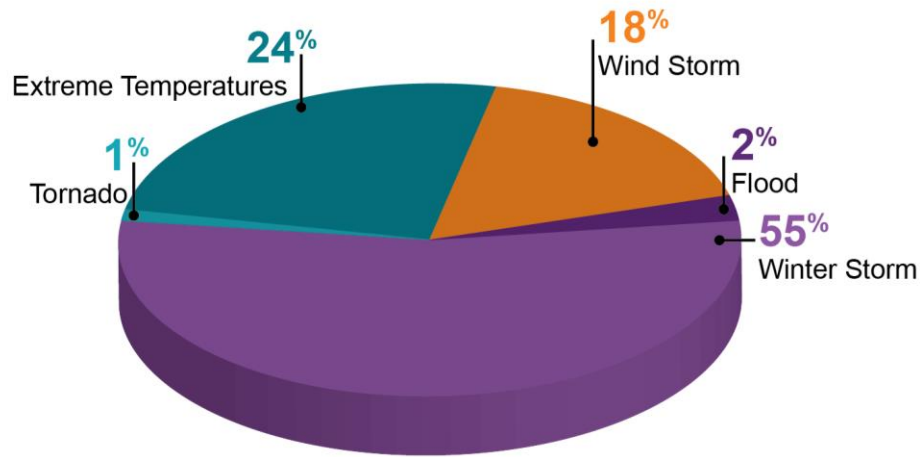


Figure 1: Percentage of Hazards

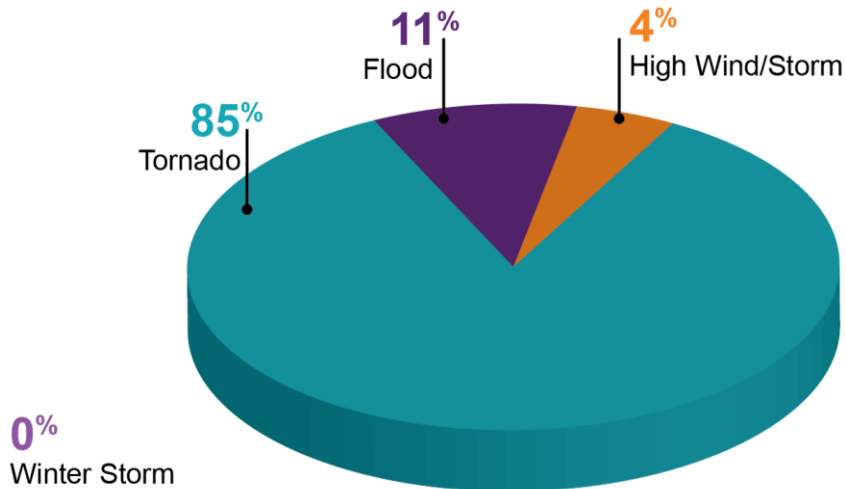


Figure 2: Property Damage Percentages from Natural Hazard Events

Natural Hazard Risk Ranking

Table 2: Ranking of Natural Hazards by Risk

Hazard	Hazard Ranking
Winter Weather	High
Flood	High
High Wind/Severe Storm	High
Dam Failure	High
Tornado	Medium
Drought	Medium
Extreme Temperatures	Medium
Earthquake	Medium
Wildfire	Low
Sinkhole/Karst	Low
Landslide	Low

Community Lifelines/Critical Assets and Mitigation Capabilities

Table 3: Number of Critical Assets for Community Lifelines/Sectors

Lifeline/Sector	Number of Assets
Safety and Security	1
Food, Water, Shelter	-
Health and Medical	-
Energy	2
Communications	-
Transportation	-
Hazardous Materials	-
Education	2
Cultural/ Historical	District
High Hazard Dams	-

A lifeline enables the continuous operation of government and business functions which are critical for human health, safety, or economic security. Lifelines are the most fundamental services for a community that, when stabilized, enable all other aspects of society to function. These lifelines are assets that may be a facility, infrastructure, operation, or entity.

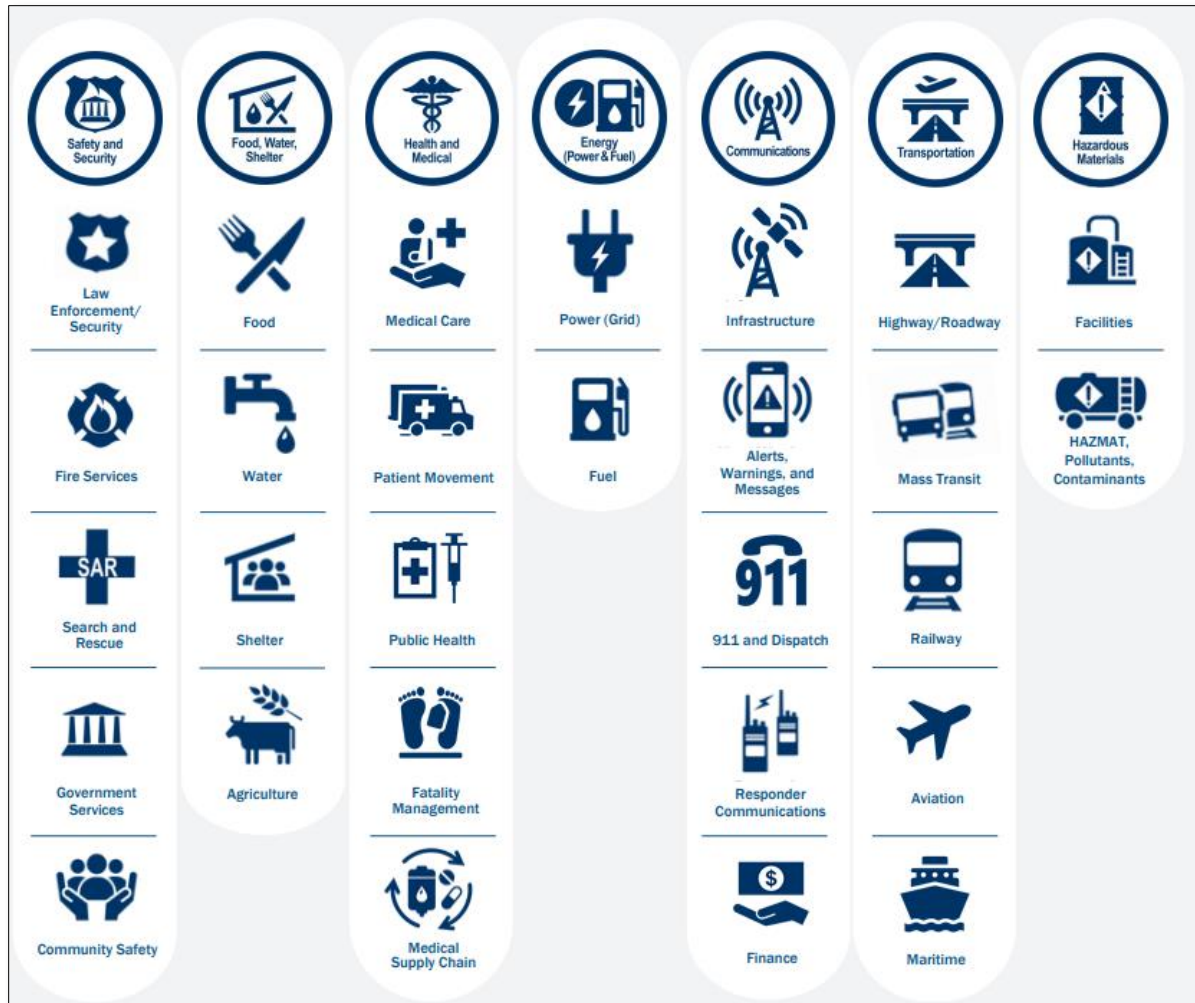


Figure 3: Community Lifeline Components

Community Lifelines Outlined

- **Safety and Security:** Law Enforcement/Security, Fire Service, Search and Rescue, Government Service, Community Safety
- **Food, Water, Shelter:** Food, Water, Shelter, Agriculture
- **Health and Medical:** Medical Care, Public Health, Patient Movement, Medical Supply Chain, Fatality Management
- **Energy:** Power Grid, Fuel
- **Communications:** Infrastructure, Responder Communications, Alerts Warnings and Messages, Finance, 911 and Dispatch
- **Transportation:** Highway/Roadway/Motor Vehicle, Mass Transit, Railway, Aviation, Maritime
- **Hazardous Materials:** Facilities, HAZMAT, Pollutants, Contaminants

Mitigation Capabilities Summary

Table 4: Capability Assessment Summary Ranking for Town of Clifton

Capability	Ranking
Planning and Regulatory	Moderate
Administrative and Technical	Low
Safe Growth	Low
Financial	Low
Education and Outreach	Moderate

Hazard Mitigation Plan Point of Contact

Table 5: Point of Contact Information

Contact Type	Contact Information
Point of Contact	Lynn Screen Councilmember lscreen@cliftonva.gov

Town of Clifton

This annex presents the following jurisdiction-specific information provided by the Town of Clifton for the 2022 update to the *Northern Virginia Hazard Mitigation Plan (NOVA HMP)*.

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1. Jurisdiction Profile

Established	1902
Total Land Area	0.25 sq. mi
Geographic Region	Piedmont/Coastal Plain
Persons Per Household	2.55
Persons Per Square Mile	
Median Age	54.2
Elevations	197 feet

1.1. Location

Located in the southwest of Fairfax County, the Town of Clifton is surrounded by unincorporated county land.

1.2. History

The area now occupied by the Town of Clifton was first settled by Europeans in the early 1700s. The Town, originally known as Devereux Station, arose with the advent of the railroad and developed as a direct result of the Civil War, when it was site where Union Army troops were stationed. The military railroad that served the troops was modernized after the war and incorporated as the Orange and Alexandria Railroad Company, aiding in the area's development. In 1868 the Town was named Clifton Station and in 1869, a post office was established. Incorporated in 1902, the Town became a retreat for wealthy residents from Washington, D.C., and was the site of hotels, hot springs, and commercial development. The small town of about 200 is also referred to as the "Brigadoon" of Virginia, and has been favored by U.S. presidents, first ladies, Supreme Court justices, congressmen, senators, and other Washington notables. The Town's population grew moderately in the decades between 1970 and 2010 and has since declined slightly.

1.3. Demographics, Economy, and Governance

The Northern Virginia regional profile is presented in [Section 1, Base Plan](#) as context to the entire plan.

Table 6: Population and Growth Rate

Year	Population	Population Change
1980	170	
1990	176	3.5%
2000	185	5.1%
2010	282	52.4%
2020	243	-13.8%

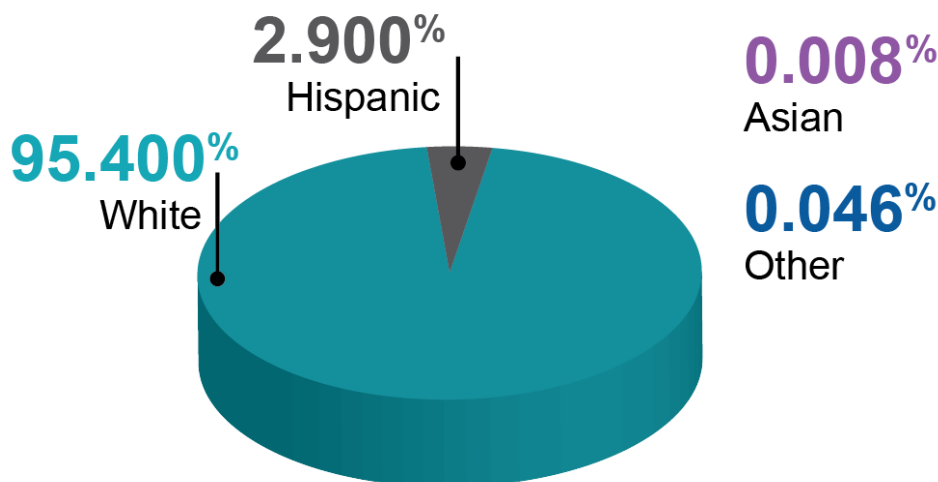


Figure 4: Race and Ethnicity Demographics*

*Due to how people view Race and Ethnicity and answer the questions in the Census, there is overlapping of responses and results equal greater than 100% of the population.

Table 7: Economic Data

Economy	Data
Median Household Income (2020)	\$182,500
Unemployment Rate (September 2021)	2.9%
Per Capital Income (2019)	\$84,373
Percentage Below Poverty (2019)	0.5%

The Town's governing body consists of a mayor and five council members, one of whom serves as vice mayor. Approximately 99% of the Town residents speak English as their main language; 1.15% speak other languages, predominantly Spanish.

1.4. Built Environment and Community Lifelines

The information presented in this section related to Community Lifelines and Critical Assets in the Town of Clifton has been collected from multiple sources, including Hazus (Version 4.2) and government websites. Critical facility data extracted from the Hazus Level 1 assessment indicates that the Town has approximately five critical and historic assets. Due to the time lag in collecting and verifying data, as well as the method of documenting location and jurisdiction used in Hazus, this may not reflect the current inventory maintained by the Town.

Table 8: Number of Assets per Community Lifeline/Sector¹

Lifeline/Sector	Number of Assets
Safety and Security	1
Food, Water, Shelter	-
Health and Medical	-
Energy	2
Communications	-
Transportation	-
Hazardous Materials	-
Education	2
Cultural/Historical	District
High Hazard Dams	-

1.4.1. Safety and Security

Fairfax County owns and operates the one fire station that serves the Town of Clifton.

1.4.2. Food, Water, Shelter

Food commodities are available throughout the Town from public retail providers, wholesalers, and contracted services for specific institutions and facilities. Additional contracts may be entered into for post-disaster needs.

All Town residences maintain individual wells and a majority of them connect to the Town sewage line; some maintain their own septic systems.

The Hazus database does not identify schools that might be used as public shelters.

1.4.3. Health and Medical

The Town of Clifton is served by healthcare and medical facilities offering patient care, urgent care, emergency rooms, and other healthcare services located in Fairfax County.

1.4.4. Energy

Town residences maintain their own propane/natural gas tanks for fuel.

1.4.5. Communications

The Hazus database does not identify Town-level communication/broadcast facilities.

Most communications and information systems and infrastructure in the United States are privately owned; however, Fairfax County maintains authority and control over public safety communications for fire, police, and other responding agencies for the Town of Clifton. In recent years, the federal

¹ Source: Fairfax County, Hazus-MH

government has taken a stronger role in protecting information and communications infrastructure, which may also present a challenge in relation to disaster impacts. Increasing reliance on this infrastructure by individuals, businesses, and government may result in vulnerabilities; emergency managers should take such possibilities into consideration during pre- and post-incident planning and operations.

1.4.6. Transportation

The Town of Clifton is served by the following major highways:

- State Routes 641 and 645

One a railroad runs through the Town.

The maintenance of transportation facilities and systems is the responsibility of the owner or entity with authority, such as municipal, county, state, and federal highway departments or agencies; toll and rail authorities; and the military. The Virginia Department of Transportation (VDOT) maintains most primary and secondary roads in Fairfax County.

The Hazus database identifies no transportation assets for the Town of Clifton.

1.4.7. Hazardous Materials

The Hazus database identifies one oil refinery, one natural gas facility, and thirteen natural gas pipeline locations within Fairfax County; however, these are not identified at the Town level.

1.4.8. Education

The Town has a private preschool at the Presbyterian church. There is one vacant educational facility in Clifton but outside the Town's jurisdiction.

1.4.9. Recreational, Cultural and Historic Sites, and Assets

The Town of Clifton maintains the community's park system to provide recreational facilities and services and support the preservation of environmentally sensitive land and resources and areas of historic and cultural significance.

The Town of Clifton was declared a national historic district by the U.S. Department of the Interior in 1985 and it maintains a historic preservation program that identifies and designates historic sites and structures. The Architectural Review Board administers the provisions of the Clifton Historic Overlay District and provides guidance to property owners on appropriate measures for preserving and protecting historic properties and buildings. In addition, the Board has approval authority for any repairs or construction to historic buildings through the Certificate of Appropriateness application and review process. These sites are assets that provide significant context to the Town's development over time and contribute to the community's tourism economy.

1.5. Growth and Development Trends

The Town's population grew moderately between the 1970s and 2010, and it has declined slightly since then. Future growth and development are limited in the Town due to its small size and historic designation.

The 2009 Comprehensive/Master Plan was in the process of being updated during this planning cycle, but it will be reviewed for the next update to determine whether any impacts have occurred in relation to development.

The Town controls the land use policies and practices within its jurisdiction and will continue to be a planning partner with the County as well as regional entities to identify hazard mitigation opportunities related to growth and development.

2. Jurisdiction Planning Process

For the 2022 NOVA HMP update, the Town of Clifton followed the planning process described in [Section 2, Base Plan](#). In addition to providing representation to the Northern Virginia Hazard Mitigation Planning Team, the Town supported the local planning process requirements by coordinating with Fairfax County and representatives from other Town departments and agencies.

Table 9: Local Planning Group Participants

Name	Position/Title	Department/Agency
Greg Zebrowski	Assistant Coordinator of Planning and Policy Analysis	Fairfax County Department of Emergency Management and Security

The jurisdiction identified its chief hazard mitigation planning responsibility as representing the Town, in coordination with the Fairfax County representative, to the Emergency Managers Group. The Town also identified the following tasks as elements of its mitigation planning responsibilities:

- Hazard risk and vulnerability assessment
- Provide technical data and hazard information
- Capabilities assessment
- Mitigation strategy development
- Sponsor mitigation actions
- Review Plan drafts and provide input
- Public outreach activities
- Implement the Plan
- Maintain the Plan

The Town of Clifton planning participants coordinated primarily by means of virtual meetings with Fairfax County during the planning process, and, as needed, independently to carry out planning activities completed through a series of worksheets that provided background information on the history of hazard events, hazard risks and vulnerabilities, capabilities, and past mitigation efforts. Additional planning process documentation of the Planning Group meetings is included in the [Base Plan, Appendix A](#).

2.1. Public Participation

Several opportunities for public involvement were provided during the planning process, including a Public Hazard Survey, which was posted and advertised on the Fairfax County website. The survey was

opened on August 8th, 2021, and closed on November 3rd, 2021, with over 1,000 responses coming in over that period of time. The Town of Clifton had a few responses from those that work in the town but do not live there.

There were two questions that got almost the same answer from everyone that took the survey, and those responses identified the natural hazard of climate change and the non-natural hazard of the pandemic to be the most concerning hazards for those who resided in the Northern Virginia Area.

In addition to the survey, the public was offered the opportunity to review and provide input to the Draft 2022 Plan update. Notification of the Draft Plan release was made through the same County web link. Documentation of the public survey and draft plan review is included in [Attachment 2 of Annex 7, Fairfax County](#).

3. Jurisdiction-Specific Hazard Event History

The Town of Clifton's comprehensive hazard history is combined with Fairfax County's, and described in [Sections 4 and 5, Base Plan](#).

The National Oceanic and Atmospheric Administration (NOAA) National Center for Environmental Information (NCEI) Storm Events Database includes 1,478 recorded natural meteorological events that took place in Fairfax County between January 1, 1950, and May 2021. The County and its municipalities have been included in three Federal Disaster Declarations and emergencies between 2017 and May 2021.

Table 10: Federal Disaster and Emergency Declarations (2017–2021), Fairfax County²

Declaration	Date	Hazard	Assistance Type
DR-4512-VA	4/2/2020 (continuing)	COVID-19 Pandemic	Individual Assistance, Public Assistance
EM-3448-VA	3/13/2020 (continuing)	COVID-19 Pandemic	Public Assistance (Category B)
EM-3403-VA	9/11/2018	Hurricane Florence	Public Assistance (Category B)

The Town of Clifton Planning Team highlighted winter weather, high wind/severe thunderstorms, and floods as significant hazards that have occurred since the 2017 plan. Data related to these hazard events is included in [Annex 7, Fairfax County](#).

² Source: FEMA

4. Hazard Risk Ranking

After developing hazard profiles, the Town of Clifton conducted a two-step quantitative risk assessment for each hazard that considered population vulnerability, geographic extent/location, probability of future occurrences, and potential impacts and consequences. The numerical scores for each category were totaled to obtain an Overall Risk Score, which is summarized as one of these risk and vulnerability classifications:

- **Low:** Two or more criteria fall in lower classifications or the event has a minimal impact on the planning area. This rating is sometimes used for hazards with a minimal or unknown record of occurrences or for hazards with minimal mitigation potential.
- **Medium:** The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is sometimes used for hazards with a high extent rating but very low probability rating. The potential damage is more isolated and less costly than a widespread disaster.
- **High:** The criteria consistently fall in the high classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area.

The two-step Hazard Risk Ranking methodology is detailed in [Section 4, Base Plan](#).

The Overall Risk Score for each hazard served as the basis for determining whether a vulnerability assessment should be conducted. Natural hazard profiles are presented within the hazard sub-sections in [Section 5, Base Plan](#), and local detail is provided in the Jurisdiction Annexes. Non-natural hazard profiles are presented in [Volume II](#) of this Plan.

Table 11: Town of Clifton - Hazard Risk Ranking Summary: Natural Hazards

Hazard	Total Probability Score	Total Consequence Score	Overall Risk Score	Hazard Ranking
Winter Weather	3.7	3.5	7.2	High
Flood	1.7	4.2	5.9	High
High Wind/Severe Storm	2.7	3.2	5.9	High
Dam Failure	1.0	4.5	5.5	High
Tornado	1.3	4.2	5.5	Medium
Drought	2.0	3.2	5.2	Medium
Extreme Temperatures	2.7	2.5	5.2	Medium
Earthquake	1.7	3.2	4.9	Medium
Wildfire	1.0	3.0	4.0	Low
Sinkhole/Karst	1.0	2.5	3.5	Low
Landslide	1.0	2.5	3.5	Low

Table 12: Town of Clifton - Hazard Risk Ranking Summary: Non-Natural Hazards

Hazard	Total Probability Score	Total Consequence Score	Overall Risk Score	Hazard Ranking
Infectious Disease/Public Health	3.0	5.8	8.8	High
Terrorism	1.0	6.4	7.4	High
Cyber Attack	2.0	4.7	6.7	High
Civil Unrest	1.3	5.0	6.3	Medium
Communication Disruption	1.3	3.7	5.0	Medium
Hazardous Materials	1.0	3.9	4.9	Low
Active Violence	1.0	3.6	4.6	Low

Based on the hazard risk scores, the Town of Clifton evaluated the level of risk for 18 hazards: 11 natural and 7 non-natural.

Eight natural hazards were identified as high- or medium-risk hazards to which the jurisdiction is vulnerable:

- **High:** Winter Weather, Flood/Flash Flood, High Wind/Severe Storm, and Dam Failure
- **Medium:** Tornado, Drought, Extreme Temperatures, and Earthquake

Five non-natural hazards were ranked as high or medium risk:

- **High:** Infectious Disease/Public Health, Terrorism, and Cyber Attack
- **Medium:** Civil Unrest, and Communication Disruption

All other hazards are ranked as “low,” signifying a minimal risk to the Town of Clifton. Other hazard information for the Town of Clifton is presented in the [Base Plan](#).

4.1. Additional Hazard Risk Considerations

Volume II of the *2022 Northern Virginia Hazard Mitigation Plan* addresses non-natural hazards identified by the jurisdiction.

5. Vulnerability Assessment

The methodology for calculating loss estimates presented in this annex is the same as that described in [Section 4, Base Plan](#). Quantitative loss estimates are provided when available. Qualitative measurement considers hazard data and characteristics, including the potential impact and consequences based on past occurrences. Accompanying the data is a discussion of community assets potentially at risk during a hazard event.

[Annex 7, Fairfax County](#) includes a statistical compilation of the number of events and related impacts for the two highest-ranked hazards for the Town of Clifton: winter weather and high wind/severe storm events.

5.1. National Flood Insurance Program

The Town of Clifton is a participant in the National Flood Insurance Program (NFIP).

Table 13: Town of Clifton National Flood Insurance Program Status³

Community Number	510186
Initial FHBM Identified	3/28/1975
Initial FIRM Identified	5/2/1977
Current Eff Map Date	9/17/2010
Reg-Emer Date	5/2/1977

Table 14: Town of Clifton NFIP Policy and Claims Statistics⁴

Policies In Force	8
Premiums Paid	\$8,176
Total Claims	3
Total Payment	\$48,969

³ FEMA NFIP Community Status Report, September 9, 2021

⁴ FEMA NFIP Community Status Report, September 9, 2021

Table 15: NFIP Status, as of NFIP

Category	NFIP Topic	Source of Information	Comments
Insurance	How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Policies: 5 Premium: \$5,837 Coverage: \$2,550,000
Insurance	How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	EMA NFIP or Insurance Specialist	Claims paid: 3 Total amount: \$48,969 Substantial damage claims: 0
Insurance	How many structures are exposed to flood risk within the community?	Community Floodplain Administrator (FPA)	Unknown
Insurance	Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist	This information is not available. Information from the State NFIP Coordinator or the FEMA Insurance Specialist must be compared against those properties within a floodplain that lack any NFIP policy coverage.
Staff Resources	Is the Community FPA or NFIP Coordinator certified?	Community FPA	The Community FPA is a Professional Engineer licensed in the Commonwealth of Virginia. The FPA is not a Certified Floodplain Manager.
Staff Resources	Is floodplain management an auxiliary function?	Community FPA	Yes, floodplain management in the Town is managed with overlay districts within the Town's zoning ordinance.

Category	NFIP Topic	Source of Information	Comments
Staff Resources	Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	The Town provides the following NFIP administration services: * Administers permit requirements for all improvements within the floodplain; * Performs engineering technical review of all required aspects of floodplain applications; * Interprets mapping using GIS provided by state agencies.
Staff Resources	What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	Funding for a dedicated CFM position and a GIS staff position.
Compliance History	Is the community in good standing with NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Compliance History	Are there any outstanding compliance issues (i.e., current violations)?		No
Compliance History	When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?		Unknown

5.2. Population

Estimates of the number of residents in the Town of Clifton vulnerable to each hazard are presented in the various hazard sections in the [Base Plan](#).

The Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index (SVI) is a tool that can be used to identify specific vulnerable populations.

The Overall CDC SVI for Fairfax County, including the Town of Clifton is presented in [Annex 7, Fairfax County](#).

5.3. Built Environment and Community Lifelines and Assets

Using the best Hazus data available, scenarios were run at the county level for earthquake, flood, and hurricane wind to determine potential exposure of buildings, infrastructure, and the economy. Due to the size of Clifton, information from Hazus is not specific to the Town, information presented in [Annex 7, Fairfax County](#) includes the Town of Clifton.

Vulnerabilities include structures, systems, resources, and other assets defined by the community as susceptible to damage and loss from hazard events.⁵ The vulnerability of critical infrastructure is presented within the lifeline sector categories identified by FEMA.

Based on 100- and 500-year flood scenarios using Hazus, there are no critical facilities in the floodplain within the Town of Clifton.

5.4. Environment

Information related to environmental vulnerability is presented in the hazard-specific sections of the [Base Plan](#).

5.5. Economy

Information related to economic vulnerability are presented in the hazard-specific sections of the [Base Plan](#). Specific direct economic losses (in thousands of dollars) related to a 2500-year 6.5 magnitude earthquake event are identified by Hazus for specific assets and presented in [Annex 7, Fairfax County](#).

5.6. Cultural/Historical

Information related to the vulnerability of cultural and historical assets are presented in the hazard-specific sections of the [Base Plan](#).

Historic structures and sites are frequently more vulnerable to flood hazards because, historically, cities and towns have tended to develop along waterways. Because removing historic structures from their original site affects their historical value, there are challenges to protecting these fragile assets.

The Town of Clifton Overlay District serves to identify and protect its significant historical and cultural landmarks. The Architectural Review Board oversees the provisions of the Overlay District through the Certificate of Appropriateness process and grants approval of applications for any plans for construction, repair, alteration, or modification of buildings and structures in the Town. The historic designation assists in ensuring that appropriate measures are applied in post-disaster impact conditions to protect cultural and historical assets from inappropriate repair, demolition, or redevelopment.

⁵ Although Fairfax County maintains a separate critical facilities inventory, information used in this analysis is extracted from the Hazus critical facilities database to maintain consistency with other jurisdictions.

6. Capability Assessment

The Town of Clifton reviewed its legislative and departmental capabilities to identify resources, strengths, and gaps for implementing hazard mitigation efforts. Using a Capabilities Assessment Worksheet, the community documented existing institutions, plans, policies, ordinances, programs, and resources that could be brought to bear on implementing the mitigation strategy. The capabilities in relation to hazard mitigation were assessed in the following categories:

- Planning and regulatory
 - Implementation of ordinances, policies, site plan reviews, local laws, state statutes, plans, and programs that relate to guiding and managing growth and development
- Administrative and technical
 - County, city, and town staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions
- Safe growth
 - Use of community planning through comprehensive plans as hazard mitigation to increase community resilience
- Financial
 - Resources that a jurisdiction has access to or is eligible to use to fund mitigation actions
- Education and outreach
 - Programs and methods that could be used to implement mitigation activities and communicate hazard-related information

6.1. Capabilities Assessment Summary, Ranking, and Gap Analysis

The Town ranked the level of capability in relation to each assessment category as a means of identifying where elements could be strengthened or enhanced. Capabilities were ranked on a qualitative basis as demonstrated by the jurisdiction's authorities, programs, plans, and/or resources:

- **Limited:** The jurisdiction has limited capabilities within this category and is generally unable to implement most mitigation actions.
- **Low:** The jurisdiction has some capabilities within this category and can implement a few mitigation actions.
- **Moderate:** The jurisdiction has some capabilities within this category, but improvement is needed in order to implement some mitigation actions.
- **High:** The jurisdiction has significant capabilities within this category as demonstrated by its authorities, programs, plans and/or resources, and can implement most mitigation actions.

Table 16: Capability Assessment Ranking Summary

Capability	Ranking
Planning and Regulatory	Moderate
Administrative and Technical	Low
Safe Growth	Low
Financial	Low
Education and Outreach	Moderate

6.1.1. Planning and Regulatory Capabilities Summary

The Town utilizes the all-hazards approach when developing any jurisdictional plans, including emergency operations, continuity of operations, and hazard-specific plans, as well as the Hazard Mitigation Plan.

The following plans have been newly developed or updated since the 2017 HMP:

- Town of Clifton Comprehensive Plan, update in progress as of October 2021
- Fairfax County Community-Wide Energy and Climate Action Plan (CECAP)
- Fairfax County Pre-Disaster Recovery Plan, dated April 2020
- Chesapeake Bay Ordinance (includes erosion control)
- The Town is carrying out a comprehensive streetscape project.
- The Communications Committee and Arts Council and Historical Preservation Society are the Committees responsible for promoting Clifton.⁶
- The Town is currently working with FEMA to update flood maps.

Capability Analysis: Moderate

The Town of Clifton depends on Fairfax County for most plans and regulations that link to emergency response, recovery, and hazard mitigation. At the time of this update, the Town's Comprehensive Master Plan, dated 2009, was being updated and it was noted that, although climate change was addressed in the former plan, this would allow the opportunity to include all hazards and projects. In addition, the capability assessment confirmed that projects or actions can be incorporated into the Capital Improvement Plan, as needed. The Town maintains a Floodplain Ordinance that addresses stormwater management. Most zoning ordinances are enforced through the County and Town partnership. The Town notes the following areas for improvement:

- Improved relationship with the County for operations support; volunteer government can make things challenging.
- Support of VDOT is crucial to complete work and accomplish tasks and goals.
- Need to increase comprehensive planning and develop solid relationships with the VDOT.
- Need to develop comprehensive plans that can work toward a shared vision, address the issues and challenges, and resolve them.

⁶ <http://www.clifton-va.com/committees/>

- Obtain assistance in procuring grants for mitigation through the County, to provide funding and support to help them complete projects; find grant opportunities they may not know they qualify for.

6.1.2. Administrative and Technical Capabilities Summary

- The Town currently has an engineer or professional trained in construction practices related to buildings and infrastructure; however, Planning Commission and committee members are volunteers.
- The Town depends on Fairfax County for planners and engineers with an understanding of natural and/or manmade hazards.
- The Town Clerk may assist with grant writing, but this is not defined as a specific job duty.
- There are no personnel for emergency management, GIS, or education related to the community's vulnerability to hazards.
- The Town coordinates with the County for use of Everbridge as an emergency warning system for internal and external notification and warning.

The Town identified the following departments and agencies as key stakeholders in its hazard mitigation planning process and implementation of the plan:

- Fairfax County Department of Emergency Management and Security
- Fairfax County Floodplain Administrator

Capability Analysis: Low

The Town of Clifton has a limited staffing capability to identify, develop, and implement mitigation actions; the Town is dependent on Fairfax County for many Town services. The Town notes the following areas for improvement:

- Need an enhanced outdoor warning system
- Need better emergency communication among police and fire departments
- Need a tracking system for low-lying and flood-prone roads and properties in order to better prepare responders and public works personnel for flash flood events.
- Need improved relationship with the County for warning and operations support

6.1.3. Safe Growth Capabilities Summary

- Growth guidance instruments include environmental policies that maintain and restore protective ecosystems; however, they do not currently provide incentives to development that is located outside of protective ecosystems.
- The Capital Improvement Program currently does not provide funding for hazard mitigation projects identified in the NOVA HMP.

Capability Analysis: Low

The Town of Clifton has limited safe growth regulatory and enforcement capabilities to prevent or limit inappropriate development in identified hazard areas and protect the natural environment; it is largely dependent on Fairfax County to carry these out.

6.1.4. Financial Capabilities Summary

- Current capital improvement projects address maintenance of buildings, infrastructure, historic railroad car, gazebo, green space, lights, and sewer transfer to the County.
- The Town has the authority to levy taxes for specific purposes, such as a meal tax, but this not yet being used.
- The Town does not impose impact fees for new development.
- The Town does not participate in the Community Development Block Grant program, but it does participate in other federal and state funding programs, such as the current COVID relief.

Capability Analysis: Low

The Town of Clifton has identified the following methods of for improving financial capabilities:

- Look into different grants to support funding for the Town.
- Utilize COVID funding.
- Leverage relationship with VDOT to help with traffic issues and establish the Town as a small village that discourages speeding.
- Increase walkability and traffic safety through funding. Look at various funding sources that can increase walkability and safer traffic flow.
- Determine whether VDOT can support the Town being removed from Google Maps and other GPS maps so it can be more secluded and not just a “pass-through.”

6.1.5. Education and Outreach Capabilities Summary

- Town of Clifton’s historical preservation groups and historical society are proactive in educating about the importance and protection of cultural and historical assets.
- Fairfax County is designated as a Storm Ready community, which includes the Town in components of public education and training.
- The Town is partnered with Fairfax County and local schools to participate in the Student Tools for Emergency Planning (STEP) program curriculum, which includes fifth-grade students packing emergency preparedness bags.

Community Rating System initiatives within the NFIP program can increase public awareness of and involvement in hazard mitigation.

Capability Analysis: Moderate

Jurisdictions have multiple opportunities to promote hazard mitigation and increase the involvement of stakeholders and the public. There is a critical need to inform additional stakeholders and the public about the benefits of hazard mitigation planning and implementation. The Town relies significantly on Fairfax County to implement education and outreach related to hazard mitigation. Virginia Department of

Emergency Management mitigation staff can also provide technical assistance to support increased jurisdictional involvement. Many hazard mitigation education tools and materials are available from state agencies, as well as from disaster preparedness and response organizations such as the American Red Cross, FEMA, and faith-based organizations with disaster response missions. The Town noted the following areas for improvement in relation to education and outreach:

- Partner with Fairfax County for more education opportunities; work with residents to increase educational opportunities.

6.2. Capability Summary – Activities that Reduce Natural Hazard Risk or Impacts

As a component of the capability assessment, the Town of Clifton identified activities related to each natural hazard that support risk reduction.

Table 17: Summary – Activities that Reduce Natural Hazard Risk or Impacts

Hazard	Activity
Drought	<ul style="list-style-type: none"> • Public education and operational plans address preparedness and response to reduce risk. • Land use and environmental policies acknowledge the importance of protecting the natural environment.
Earthquake	<ul style="list-style-type: none"> • State and international building codes provide for seismic design regulations. • Public education and operational plans address preparedness and response to reduce risk.
Extreme Temperature	<ul style="list-style-type: none"> • Public education and operational plans address preparedness and response to reduce risk.
Flood/Flash Flood	<ul style="list-style-type: none"> • Floodplain administration and regulations prohibit inappropriate activities and future development in the floodplain. • Stormwater management program and projects address flood prevention and risk reduction.
High Wind/Severe Storm	<ul style="list-style-type: none"> • State and international building codes provide wind-load design regulation.
Landslide	<ul style="list-style-type: none"> • Land use and environmental policies acknowledge the importance of protecting the natural environment.
Severe Winter Weather	<ul style="list-style-type: none"> • Public education and operational plans address preparedness and response to reduce risk.
Tornado	<ul style="list-style-type: none"> • Public education and operational plans address preparedness and response to reduce risk.
Wildfire	<ul style="list-style-type: none"> • Public education and operational plans address preparedness and response to reduce risk.
Non-Natural Hazards	<ul style="list-style-type: none"> • Public education and operational plans address preparedness and response to reduce risk. • Beginning with the 2022 NOVA HMP, hazard mitigation planning is being integrated into existing planning and risk reduction activities for technological and human-caused hazards.

Hazard	Activity
Climate Change	<ul style="list-style-type: none"> Ongoing resilience planning and utilizing the Community-wide Energy and Climate Action Plan will allow for identification and mitigation of climate change-related issues in future planning cycles.

7. Resilience to Hazards

7.1. National Risk Index

The National Risk Index (NRI) provides an overview of hazard risk, vulnerability, and resilience. The designation of “low risk” is defined by lower loss due to natural hazards, lower social vulnerability, and higher community resilience. The NRI is a dataset and online tool developed by FEMA and other partners to help illustrate communities in the United States at risk for 18 natural hazards. Hazard risk is calculated based on data for a single hazard type and reflects the relative risk for that hazard type; it should be considered only as a baseline relative risk measurement for the purpose of a general comparison with the local Hazard Risk Ranking in the Hazard Risk Ranking section of this annex. In addition, some hazards are defined differently from the hazards in this plan so a direct hazard-to-hazard comparison of risk cannot be determined. The NRI is a county-level risk ranking, which includes the Town and is presented in [Annex 7, Fairfax County, Section 7.4](#).

7.2. Community Resilience Estimates

The Community Resilience Estimate (CRE) is a data product produced by the U.S. Census Bureau that can be utilized to estimate potential community resilience to disasters by combining data from several sources to analyze individual and household level risk factors.

The index produces aggregate-level (Census tract, county, and state) small area estimates that help determine how at-risk specific neighborhoods might be to disasters due to characteristics that may make specific segments of the population more vulnerable to the impacts and consequences of disasters. The 10 risk factors⁷ include the following:

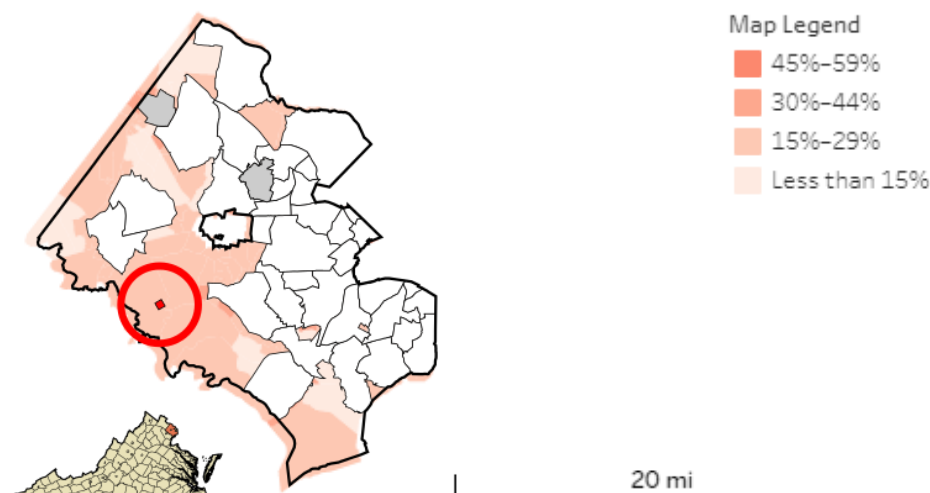
1. Income-to-poverty ratio
2. Single or zero caregiver household
3. Unit-level crowding
4. Communication barrier
5. Aged 65 years or older
6. Lack of full-time or year-round employment (household)
7. Disability
8. No health insurance coverage
9. No vehicle access (household)

⁷ The Community Resilience Estimates are developed by the U.S. Census Bureau; initial release date, August 10, 2021. Methodology is described at the [U.S. Census Bureau Community Resilience Methodology page](https://www.census.gov/programs-surveys/community-resilience-estimates/technical-documentation/methodology.html) (<https://www.census.gov/programs-surveys/community-resilience-estimates/technical-documentation/methodology.html>).

10. No broadband internet access (household)

Fairfax County, VA

Map of Percentage of Residents in Tract with 3+ Risk Factors

**Figure 5: Community Resilience Estimate⁸**

The estimate is categorized into three groups: zero risks, one or two risks, and three or more risks. The CRE for Fairfax County is 14.72 percent, meaning that 167,857 of county residents have three or more risk factors.

The combination of data and analysis described in this section provides a comprehensive representation of Fairfax County's risk, vulnerability, and resilience to all hazards.

7.3. New Hazard Risk Challenges or Obstacles to be Monitored in the Next Planning Cycle

The Town of Clifton Planning Team identified specific hazard challenges and obstacles to be monitored in the next planning cycle:

- The risk of cyber-related incidents on critical infrastructure and key resource sites.
- Impacts of climate change.
- Increases in the number of excessive rainfall events that impact new areas with flooding.

⁸ Community Resilience Estimates, U.S. Census Bureau

8. Mitigation Actions

8.1. Goals and Objectives

The Town of Clifton Planning Team adopted the regional goal statement presented in [Section 8, Base Plan](#).

8.2. Status of Previous Actions

The Town of Clifton did not submit mitigation actions in the 2017 NOVA HMP, so it did not perform a review of previous actions. The Town will initiate the action implementation process to monitor and track progress through the periodic review and evaluation of the plan in the next planning cycle and updated NOVA HMP. Some risk-reduction projects that have been completed or are currently in progress may not have been included in this update for one of the following reasons:

- Project funding has been approved, received, or identified, and additional resources are not needed to complete the project.
- The project scope is inconsistent with the hazard mitigation planning goals defined in this plan.
- The responsible department, agency, or organization maintains an internal tracking system that documents progress and resulting risk reduction.

8.3. New Mitigation Actions

The Town of Clifton Planning Team identified four new mitigation actions to include in this plan. Proposed actions address risks consistent with the jurisdiction's highest risk hazards (i.e., flood/flash flood and winter weather) as well as actions that address hazard mitigation education programs for all hazards.

8.4. Action Plan for Implementation and Integration

The Town of Clifton submitted four (4) new actions that will be implemented in the upcoming planning cycle. Town Council in collaboration with the Planning Committee is responsible for coordinating the implementation of the hazard mitigation activities. The designated Mitigation Coordinator will monitor the implementation of the jurisdiction's actions and participate in the implementation of the multi-jurisdictional regional plan as it relates to the Town of Clifton. Tasks to ensure that the Town's actions are implemented are integrated into the *Action Plan for Implementation and Integration* (which includes the prioritized list of Mitigation Actions) as well as plan maintenance procedures described in the next section. The *Action Plan for Implementation and Integration* describes how the Town's hazard mitigation risk assessment and goals will be incorporated into its existing plans and procedures.

Table 18: Action Plan for Implementation and Integration, Town of Clifton

Existing Plan or Procedure	Description of How Mitigation Will Be Incorporated or Integrated
Integrate goals into the local comprehensive plan.	When it is updated, the Town will include local safety and environmental concerns, including mitigation actions as applicable.
Review/update land development regulations for consistency with mitigation goals.	Continue coordination with Fairfax County Department of Planning and Development regarding future land use projects. Potential area of focus is Chesapeake Bay Watershed regulation, which keeps land division minimal and preserves water source.

Existing Plan or Procedure	Description of How Mitigation Will Be Incorporated or Integrated
Review/update building/zoning codes for consistency with mitigation goals.	Work with Zoning Administrator regarding town zoning ordinances and consistency with mitigation goals.
Maintain regulatory requirements of floodplain management program (NFIP).	Support the Fairfax County Public Works and Environmental Services responsible for floodplain management.
Continue public engagement in mitigation planning.	Continue to promote awareness of hazards and incorporate public feedback into planning processes and seek resident feedback supporting mitigation. Achieve a better understanding of population demographics and concerns.
Identify opportunities for mitigation education and outreach.	Identify opportunities for collaboration with Fairfax County to conduct community outreach to promote awareness of the importance of mitigation projects.
Review/update stormwater plans and procedures for consistency with mitigation goals.	County will address this at their level with Town input.
Review/update emergency plans to address evacuation and sheltering.	County will address this at their level with Town input.
Maintain ongoing enforcement of existing policies.	Continue coordination with the County on applicable enforcement policies.
Monitor funding opportunities.	Work with Fairfax County to collaborate on mitigation opportunities by sharing mitigation funding or project availability and by attending countywide mitigation meetings.
Incorporate goals and objectives into day-to-day government functions.	The Town will strive to incorporate the concept of mitigation into day-to-day government functions, including continual monitoring of the action items identified in the 2022 update. The plan will be used to better understand the community and its needs and desires. The plan will be a working plan, not a stagnant plan.
Incorporate goals into day-to-day development policies, reviews, and priorities.	Work with the Planning Commission, Architecture Review Board, and Committee on Environment to incorporate mitigation into day-to-day activities.
Other	Participate in the Great ShakeOut annual drill, tornado drills, and other similar programs as applicable and able.

9. Annex Maintenance Procedures

9.1. Maintenance of the NOVA HMP, Base Plan

The point of contact for the Northern Virginia Mitigation Project Team is the facilitator for the process to monitor, evaluate, and update the **NOVA HMP, Base Plan**. This facilitator is responsible for initiating the annual activities, convening the NOVA Planning Team (made up of the Emergency Managers Group and Planning Group), and providing follow-up reports to designated entities defined in the method and schedule for the plan maintenance process, as outlined in **Section 3, Base Plan**.

Table 19: Town of Clifton Plan Maintenance Responsibilities for the Northern Virginia Hazard Mitigation Plan, Base Plan

Activity	Responsibilities
Monitoring the Plan	<ul style="list-style-type: none"> • Represent the jurisdiction during the monitoring process. • Collect, analyze, and report data to Fairfax NOVA Planning Team. • Maintain records and documentation of all jurisdictional monitoring activities. • Assist in disseminating reports to stakeholders and the public. • Promote the mitigation planning process with the public and solicit public input.
Evaluating the Plan	<ul style="list-style-type: none"> • Represent the jurisdiction during the evaluation process. • Collect and report data to the /NOVA Planning Team. • Maintain records and documentation of all jurisdictional evaluation activities. • Assist in disseminating information and reports to stakeholders and the public.
Updating the Plan	<ul style="list-style-type: none"> • Represent the jurisdiction during the planning cycle, including plan review, revision, and update processes. • Collect and report data to the NOVA Planning Team. • Maintain records and documentation of all jurisdictional plan review and revision activities. • Help disseminate reports to stakeholders and the public.

9.2. Maintenance of the Jurisdiction Annex

In addition to maintenance of the **NOVA HMP, Base Plan**, the Town of Clifton Mitigation Planning Coordinator will facilitate the method and schedule for maintaining the **Jurisdiction Annex**. The Town's maintenance method and schedule may coincide with that of Fairfax County and be conducted simultaneously.

9.2.1. Plan Maintenance Schedule

- **Monitor:** annually and/or following major disaster(s)
- **Evaluate:** annually and/or following major disaster(s)
- **Update:** annual tasks over the five-year planning cycle; planning process in fifth year

Table 20: Town of Clifton Jurisdiction Annex Maintenance Procedure

Activity	Procedure and Schedule	Outcome
Monitoring the Annex	<ol style="list-style-type: none"> 1. Schedule the annual plan review with jurisdiction planning team. 2. Review the status of all mitigation actions, using the <i>Mitigation Action Implementation Worksheet</i> (Section 3, Attachment A, NOVA HMP Base Plan). 	<ul style="list-style-type: none"> • Produce an annual report that includes the following: <ul style="list-style-type: none"> ▪ Status update of all mitigation actions ▪ Summary of any changes in hazard risk or vulnerabilities and capabilities ▪ Summary of activities conducted for the <i>Action Plan for Implementation and Integration</i>
Evaluating the Annex	<ol style="list-style-type: none"> 1. Schedule the annual plan evaluation with the jurisdiction planning team. 2. Evaluate the current hazard risks, vulnerabilities, and mitigation capabilities using the <i>Planning Considerations Worksheet</i>, (Section 3, Attachment C, NOVA HMP Base Plan). 	<ul style="list-style-type: none"> • Submit the annual report to the /NOVA HMP Project Team Point of Contact
Updating the Annex	<ol style="list-style-type: none"> 1. Coordinate with Fairfax County and the Northern Virginia jurisdictions to identify the method and schedule for the five-year update of the NOVA HMP. 2. Participate in the planning process. 3. Provide input related to the plan components. 4. Following FEMA Approvable Pending Adoption (APA) designation, adopt the updated plan. 	<ul style="list-style-type: none"> • Adoption of the FEMA-approved plan every five years will maintain the jurisdiction's eligibility for federal post-disaster funding.

Mitigation actions presented in this Jurisdiction Annex may be reviewed, revised, and updated at any time.

The Town of Clifton will continue to be a planning partner with multiple jurisdictions and regional entities, including Fairfax County, to identify hazard mitigation opportunities that reduce the risk of the hazards identified in this plan.

10. Annex Adoption

The Town of Clifton Jurisdiction Annex will be adopted simultaneously with the adoption of the *Northern Virginia Hazard Mitigation Plan*.

11. Attachments

- Attachment 1: Adoption Resolution
- Attachment 2: Documentation of Public Participation
- Attachment 3: Mitigation Actions

11.1. Attachment 1: Adoption Resolution

[This page is a placeholder for the Adoption Resolution for this Jurisdiction]

11.2. Attachment 2: Documentation of Public Participation

Public Hazard Survey – Screenshot of the Survey Promotion

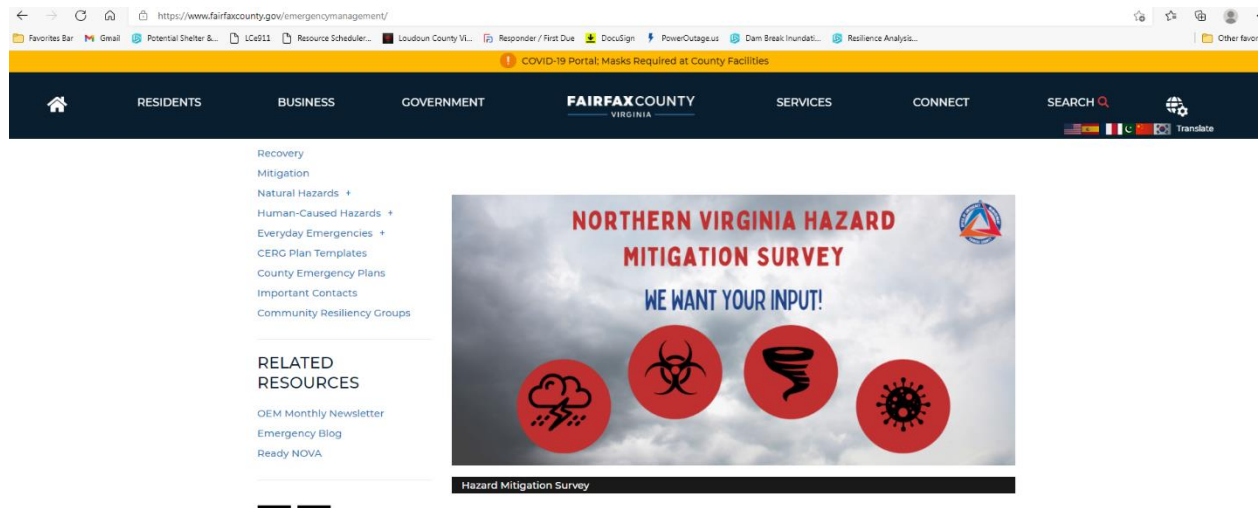


Figure 6: Fairfax County OEM Webpage

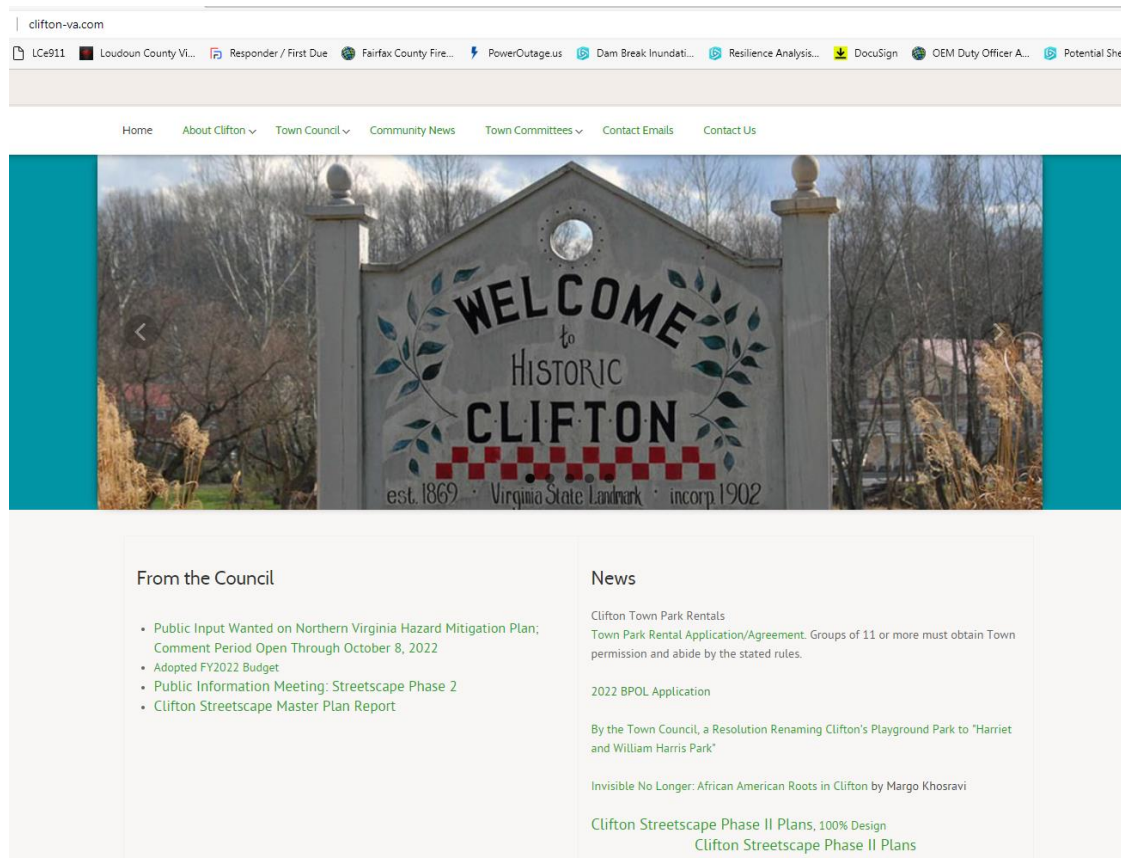


Figure 7: Final Draft Public Comment Announcement

11.3. Attachment 3: Mitigation Actions

Project No.	Agency/Department Mitigation Action	Lead Agency/ Department/ Organization	Hazard(s)	Funding Source	Target Completion Date	Interim Measures of Success	Priority	Comments
2022-1	Work with FEMA to re-examine flood zones and update FIRMS. Use this information to reevaluate NFIP activities.	Town personnel or volunteers and Fairfax County Department of Planning and Development	<ul style="list-style-type: none"> Flood 	FEMA Unified Hazard Mitigation Assistance Funding, Fairfax County or Town funds	Ongoing	Multi-year project; meet FEMA deadlines throughout the project.	Medium	Use this information to reevaluate NFIP activities.
2022-2	Continue to implement building and development standards as required under the NFIP.	Town personnel or volunteers and Fairfax County Department of Planning and Development	<ul style="list-style-type: none"> All Hazards 	Hazard Mitigation Assistance grant funding, US Army Corps of Engineers, Fairfax County or Town funds, VDEM		Implement one new standard every year.	Medium	This task is ongoing as building and development standards are updated; these are reviewed and incorporated as appropriate. All new policies and procedures comply with the NFIP.

Project No.	Agency/Department Mitigation Action	Lead Agency/ Department/ Organization	Hazard(s)	Funding Source	Target Completion Date	Interim Measures of Success	Priority	Comments
2022-3	Develop an outreach/education program aimed at promoting hazard mitigation for the residents of and visitors to Clifton.	Town personnel or volunteers and Fairfax County Department of Emergency Management and Security	<ul style="list-style-type: none"> All Hazards 	Fairfax County or Town funds			High	This program will be completed when funding becomes available.
2022-4	Work with the Virginia Department of Transportation (VDOT) to expand and fortify the Town's bridge infrastructure to ensure evacuation capability and pedestrian safety.	Town personnel or volunteers	<ul style="list-style-type: none"> Earthquake Flood/Flash Flood High Wind/ Severe Storm Sinkhole/ Karst Landslide Tornado Winter Weather Wildfire 	VDOT			High	