

Mitigation Action Plan

This section outlines the Mitigation Action Plan including:

- Goals and Objectives guiding the plan
- Hazard-specific strategies
- A summary of mitigation action items by locality
- Detailed mitigation action items by locality

201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

►► Goals and Objectives:

While the goals of this hazard mitigation plan are concurrent with the goals of FEMA and the Virginia Department of Emergency Management in reducing loss of life and property, the Hazard Mitigation Working group has developed a set of goals and objectives specific to the region. The goals are sorted into five broad categories.

Education and Outreach (E)

GOAL: Increase awareness of hazards and encourage action to mitigate the impacts

- OBJECTIVE: Educate families and individuals on disaster mitigation and preparedness
- OBJECTIVE: Train key agency staff and volunteer groups in disaster mitigation and preparedness
- OBJECTIVE: Train staff at schools and residential facilities in disaster mitigation and preparedness

- OBJECTIVE: Encourage and equip employers to develop emergency action plans
- OBJECTIVE: Protect sensitive areas through conservation practices

Infrastructure and Buildings (I)

GOAL: Reduce the short and long-term impact of hazard events on buildings and infrastructure

- OBJECTIVE: Diversify the energy system to provide multiple power source and fuel supply options
- OBJECTIVE: Diversify the communications system to provide alternative lines for use during loss of capacity
- OBJECTIVE: Diversify the transportation system by increasing connectivity and providing modal options
- OBJECTIVE: Elevate, retrofit and relocate existing structures and facilities in vulnerable locations
- OBJECTIVE: Construct or upgrade drainage, retention, and diversion elements to lessen the impact of a hazard

Whole Community (C)

GOAL: Prepare to meet the immediate needs of the population during natural hazards

- OBJECTIVE: Train staff to effectively communicate with and transport people regardless of their language proficiency and physical needs.
- OBJECTIVE: Ensure that the population can access emergency shelters in a timely manner and have functional needs met, in the event of a natural hazard

Mitigation Capacity (M)

GOAL: Increase mitigation capacity through planning and project implementation

- OBJECTIVE: Reduce property risks through planning, zoning, ordinances and regulations
- OBJECTIVE: Incorporate mitigation planning concepts into local plans and ordinances
- OBJECTIVE: Pursue funding to implement identified mitigation strategies

Information and Data Development (D)

GOAL: Build capacity with information and data development to refine hazard identification and assessment, mitigation targeting and funding identification

- OBJECTIVE: Identify data and information needs and develop methods to meet these needs
- OBJECTIVE: Ensure that each critical facility has a disaster plan in place

► Hazard-Specific Strategies

The mitigation action items are organized in this plan by jurisdiction, in order to highlight regional differences and assign ownership to local governments. However, there is also a need to explicitly link the action items determined for each locality with the hazards identified regionally in this plan, in order to determine whether the actions are properly aligned with the actual threats posed by natural hazards in the region. Strategies are included for hazards ranked a high or medium risks.

The Hazard Mitigation Working Group identified two high-risk hazards in the region and one moderate-risk hazard in the region that necessitate special attention in this plan. With a relative threat rating of 100%, wind events (Hurricane/high wind/windstorms) was determined to be the hazard with the greatest probability of occurrence and highest impact on the community. Flooding ranked second with a relative score of 67%. These hazards are considered high-risk for all localities in the TJPD.

Winter storms/weather was considered a moderate risk, with a relative score of 56%. Scores dropped sharply for other risks, with wildfire, lightning, drought/extreme heat, and dam failure all were scored equally with a relative threat rating of 22% as the fourth ranked hazards. Wildfire and lightning are covered under the same strategy. Drought/extreme heat is considered as a single strategy, as is dam failure. Tornado and earthquake both had a relative rating of 19%, and landslide at 11%. All of these are considered low risk hazards.

High Wind Events | High Risk

Hurricanes, high winds and windstorms combined were ranked as the most significant hazard in the region. For the purposes of the mitigation strategies, these wind events and tornadoes are considered together. Hurricanes and tornadoes are very different in their impact and require somewhat of a difference in preparedness. It should be noted that some of the greatest impacts of hurricanes are associated with the flooding caused by these major storms. Mitigation of water-related impacts is considered in the flooding strategy above, and this strategy will only consider the wind related impacts.

Similar to winter storms, high wind can disrupt the power system. There are recommendations to remove vegetation from the vicinity of power lines, with the understanding that complete removal of street trees is not desirable for many residents in urban areas. There are also action items related to keeping properties and driveways free of dangerous trees or vegetation, although this strategy is completely voluntary and implemented through edu-

cational programs.

Flooding | High Risk

Flooding is the second most significant hazard in the region, and several of the mitigation action items in this plan are intended to limit its impacts. All localities in the region experience flooding, but there are important differences in the types of flood events that occur. Portions of Fluvanna County, the City of Charlottesville, and Albemarle County may be inundated in riverine flooding from the James River or the Rivanna River. Flooding the Greene County, Nelson County, and western Albemarle County are prone to flash floods and stormwater drainage from the Blue Ridge Mountains.

There are essentially three primary strategies for mitigation of flooding: 1. adjust the path of flooding either through engineering or passive restoration of natural function. 2. Limited development and/or remove objects of value from the path of floodwaters. 3. Prepare and educated the public for responding to floods.

The most significant element of flood control currently in the region are the dams for reservoirs and the levee protecting Scottsville. No specific action items are recommended for these improvements, because the responsibility for dam monitoring and management is outside the scope of local responsibility. The levee in Scottsville was evaluated in the vulnerability assessment and determined to withstand a 1% flood. There are no improvements recommended by this plan for the levee.

Several action items directly involve stormwater management, with the purpose of enhance flood control. These are especially important in more urbanized areas with more density that can be impacted. More urbanized areas also tend to have higher proportion of impervious surfaces that tend to speed up and redirect the flow of stormwater in ways that can be harmful. The Virginia Department of Environmental Quality has mandated or encouraged certain stormwater management practices, with the purpose of complying with the Chesapeake Bay Act in improving water quality. Flood control is another important factor to consider, so many of these practices are included in this plan as well. These practices include increasing the storage capacity of streams, maintenance of stormwater conveyance systems, removal of debris that may block channels, and the installation or maintenance of basins for the collection of storm water.

The second strategy is to limit human settlement in the path of waters. This can be done through policy, such as zoning codes establishing special zones for flood areas,

or retroactive practices of removing structures current susceptible to flooding. Most jurisdictions in the area already have zoning codes meant to protect from flooding, but this plan does recommend strengthening those codes in some cases. The plan includes action items for removing buildings in the floodplain in the Town of Columbia and the City of Charlottesville that are abandoned or heavily disinvested.

Finally, the plan includes action items intended to assist the public and emergency responders in cases when flooding does occur. Many of the action items are intended to provide crucial information, such as signage along routes that are susceptible to flooding and high water marks on bridges. There are recommended education campaigns targeted toward individual households with ideas for flood-smart landscaping and household practices. There are also general action items intended to prepare for multiple hazards with properly equipped shelters, communications, and organization of staff and volunteers.

§201.6(c)(3)(ii): [The mitigation strategy] must also address the jurisdiction’s participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate.

All counties in the region and the City of Charlottesville participate in the National Flood Insurance Program (NFIP), which enables property owners to purchase federally-backed insurance to protect against losses from flooding. All towns, with the exception of the Town of Louisa and the Town of Mineral, participate in the program. The two towns in Louisa County are identified by this plan as very low flood-risk.

The following table is from the FEMA National Flood Insurance Program Community Status Book, as of May 2017:

Community	Flood Hazard Boundary Map Identified	Flood Insurance Rate Map Identified	Current Effective Map Date	Date Community Joined Program
Albemarle County	08/25/78	12/16/80	05/16/16	12/16/80
Charlottesville City	05/24/75	06/15/79	02/04/05	06/15/79
Fluvanna County	12/13/74	08/15/78	05/16/08	08/15/78
Greene County	12/13/74	09/10/84	01/05/07	09/10/84
Louisa County	12/20/74	06/01/89	11/5/97	Suspended – 10/31/16
Nelson County	11/22/74	08/01/78	06/18/10	08/01/78
Scottsville, Town Of	09/10/76	09/05/79	05/16/16	09/05/79

All participating jurisdictions in the Thomas Jefferson region meet or exceed the minimum regulatory requirements by limiting the extent of development in identified floodplains. Participating in NFIP also makes localities and property owners within flood hazard areas eligible for various mitigation funds that are intended to reduce the risk of future flood losses. Several action items in this plan take advantage of this opportunity for localities to reduce their overall exposure to flooding damage.

Winter Storms | Moderate Risk

Winter storms are common in the region. The primary impacts are felt in infrastructure, both in the safety of the roadways, the disruption of business operations, and loss of power. Impedance of access is another important impact of storms. Snow can make emergency response and travel to critical services difficult, especially for vulnerable populations in rural areas. Finally, extreme cold can be harmful to vulnerable populations.

Several actions items are intended to prevent the loss of power during a snowstorm. The plan recommends for localities to partner with power companies to make sure that trees or other obstacles do not pose a threat to power lines. In some cases, the burial of utilities is recommended for urban areas. Other action items are intended to maintain the emergency response function during a power outage. It is important for localities to have multiple means for communication, and not to be overly reliant on devices that require power. Back-up generators are recommended for all shelters, as well as for businesses that are critical to the community such as grocery stores. Other action items are intended to assist in locating vulnerable households that may require assistance in heating or other attention during a power outage.

Another mitigation strategy is to limit the impact on transportation infrastructure during storms. Snow removal on public roads is conducted by VDOT in all localities except for the City of Charlottesville, but there are several private communities and individual driveways that rely on other means for snow removal. All localities also include an action item to encourage address signs that are visible during winter storms.

Mitigation Actions

Mitigation actions are discrete projects, programs, or policies that are recommended for implementation in this plan. The action items differ from objectives in that they are measurable, have a party responsible for completion, and typically can be completed within a given timeframe. The action items presented in this plan represent the aspirations of the various localities in the region, with the understanding that they may be completed as resources are made available from a variety of sources. Mitigation actions are to be implemented by the lead party, as identified in the plan, often in partnership with other agencies and organizations.

Several action items, particularly those involving the creation or revision of policy, will enhance resilience to hazards for development that occurs after implementation. Other action items are intended to retroactively improve existing structures and infrastructure to miti-

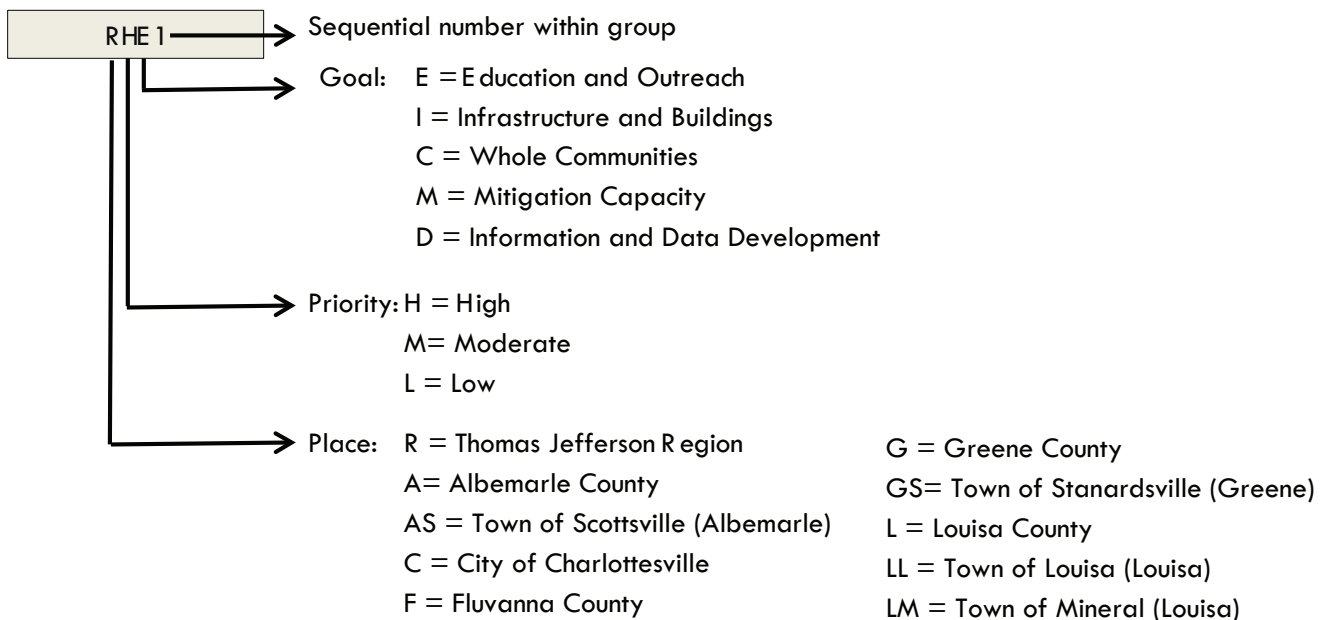
gation hazards. In many cases ongoing maintenance, such as clearing debris to prevent forest fires, or practices of household and business preparedness are recommended. The list of action items strikes a balance between structural, policy-oriented, and programmatic recommendations.

Each action item in the plan is prioritized as high, medium, or low to reflect the mitigation value of the action or the urgency it requires. Priorities were determined based on several sources. Items that were included in the 2012 plan generally maintain the same priority. The online survey asked respondents to prioritize goals and objectives, and this information has been used to prioritize the associated action items.

The action items are presented here in both in an abridged and unabridged form to facilitate ease of use. Each item is color-coded by locality and numbered sequentially with higher priority action items appearing earlier on the list. The Mitigation Action Worksheet template follows:

[Activity Code] Mitigation Action: [Jurisdiction]	
Category:	One of the goal categories listed above that is supported by the action
Action Item (Describe):	Brief description of action item
Hazard (s):	The hazard(s) the action is intended to mitigate
Lead Agency/Department Responsible:	Identify the local agency, department, or organization that is best suited to accomplish the action.
Estimated Cost:	An estimate of the costs required to complete the project or continue the project for the course of 5-years; this amount should be estimated until a final dollar amount can be determined.
Funding Method: (General Revenue, Contingency/Bonds, External Sources, etc.)	Potential sources of funds to complete the action, when applicable
Implementation Schedule:	Timeframe for which the action is expected to be completed
Priority	Placement in the order of importance and urgency

Activity Code Key



2017 Action Items for Regional Hazard Mitigation Plan

Activity Code	Activity Description
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Thomas Jefferson Region	
RHE1	Provide a copy of the Regional Hazard Mitigation Plan to each library in the Jefferson-Madison Regional Library system
RME1	Conduct a public education program on disaster preparedness, leveraging existing materials and sharing resources regionally
RMD1	Identify locations for deposit of debris after a hazard

Albemarle County	
AHE1	Develop a Comprehensive fire safety communications/education strategy, addressing open space protection, the burn permit process, and “Ready, Set, Go Program” (Fire Wise workshops), and residential and business preparedness
AHE2	Increase the number of trained emergency responders, both staff and volunteers
AHI1	Implement recommendations from the Community Water Supply Plan, including water demand management/conservation and drought monitoring and management
AHM1	Incorporate this Regional Hazard Mitigation Plan into local comprehensive plans and Emergency Operations Plans
AHM2	Install fire mitigation measures, including dry hydrants, fire breaks, and fire rings.
AHD1	Assess resistance of existing critical facilities to natural hazards
AHC1	Continue and expand the use of citizen alert systems
AME1	Ensure that all schools have regular disaster response drills
AME2	Continue to pursue conservation practices in sensitive areas, including flood-prone areas.
AMI1	Build or repair bridges so as not to impede floodways
AMI2	Upgrade bridges to support emergency vehicles
AMI3	Carry out physical security improvements to water and wastewater systems, which may include fencing, door hardening, window hardening, locks, bollards, cameras, signage, lighting, access control and intrusion detection.
AMI4	Procure technology equipment for Water/Wastewater system component inspections.
AMM1	Implement recommendations from Drought Plan
AMM2	Through the development process, discourage or disallow development in flood-prone areas
AMM3	Provide planning support for water and wastewater systems operational and integrated security management
AMM4	Seek financial support for an integrated regional camera and monitoring system, including research, planning, procurement, implementation, management and maintenance.
AMD1	Expand GIS data for use in mitigation planning, preparedness planning, and response activities
ALE1	Encourage property owners and residents to clear creek beds, storm drain inlets, ditches and channels, and to remove debris where flooding has increased.
ALE2	Ensure all houses and businesses have clear address signs that are visible during snowstorms and other emergencies
ALE3	Continue educational campaign about the benefits of open space and sensitive area protection.
ALC1	Increase the capacity to shelter in place in public buildings.

ALI1	Improve the maintenance of stormwater conveyance system.
ALI2	Implement Stormwater Management Plan to reduce floodwater and pollution discharge via stormwater systems.
ALI3	Maintain and Retrofit stormwater management basins/facilities including dam maintenance and upgrades
ALI4	Partner with utility companies to keep power lines free of vegetation
ALI5	Reduce pollution discharge via stormwater systems

Town of Scottsville	
ASMM1	Ensure all houses and businesses have clear address signs that are visible during snowstorms and other emergencies
ASLM1	Incorporate hazard mitigation plan into community plans
ASMI1	Establish a weather monitoring station in Scottsville to enhance situational awareness on weather system impacts in the southern edge of the County and along the James River

City of Charlottesville	
CHE1	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building
CHE2	Ensure that all schools have regular disaster response drills.
CHI1	Implement recommendations from the Community Water Supply Plan.
CHM1	Incorporate hazard mitigation plan into community plans.
CHM2	Conduct Community Emergency Response Team (CERT) classes to equip individuals and groups to assist in the event of a disaster.
CHM3	Provide incentives to institutions and homeowners for use of low-flow appliances.
CHM4	Continue to expand use of citizen alert system.
CHM5	Implement recommendations from Drought Management Plan.
CHM6	Ensure that all shelters and public buildings have a battery-powered emergency radio and flashlight.
CME1	Support purchase of rain barrels
CMI1	Build or repair bridges so as not to impede floodwaters
CMI2	Add signage to roads in locations that frequently flood.
CMI3	Retrofit emergency service buildings for hazard resistance.
CMM1	Support volunteer groups and encourage collaboration on public outreach and education programs on hazard mitigation.
CMM2	Create a strategy for using existing media outlets for communications during a hazard event.
CLE1	Provide citizens with literature about flood and drought-smart landscaping.
CLE2	Create educational campaign about the benefits of open space and sensitive area protection.
CLI1	Improve the maintenance of stormwater conveyance system.
CLI2	Reduce pollution discharge via stormwater systems.
CLI3	Retrofit stormwater management basins

Fluvanna County	
FHE1	Ensure all houses and businesses have clear address signs that are visible during snowstorms and other emergencies
FHE2	Carry out an educational campaign for businesses to develop emergency procedures and shelter-in-place plans
FME1	Carry out a targeted educational campaign in subdivisions at high risk for fire impacts
FME2	Conduct tabletop exercises for damage assessments
FME3	Bring in experts to conduct in-house staff training in best management practices in hazard mitigation and preparedness
FME4	Offer training on post-event inspection and develop a protocol to serve as a mechanism for prioritization
FME5	Increase the number of trained emergency responders, both staff and volunteers
FME6	Conduct FireWise workshops
FME7	Provide educational information about burn laws permit process
FLE1	Promote CERT training opportunities available in the region to equip individuals and groups to assist in the event of a disaster
FLE2	Cross-train current volunteers across other County functional areas
FHI1	Install warning signs and develop alternate routes for roads that flood briefly during heavy rains (e.g. Slaters Fork Road, Carysbrook, farm pond dam locations)
FHI2	Install new fire hydrants along new JRWA water line on east side of County
FMI1	Identify vulnerable structures and apply for funding to implement acquisition and demolition, relocation, floodproofing, or structural retrofit projects
FMI2	Demolish and Remove remains of old surface water treatment plant located on TM 58 A 26 & 27(County-owned property)
FMI3	Remove +/-20,000 gallon water storage tank from James River.
FLI1	Identify repetitive loss properties, develop appropriate mitigation action, and apply for funding
FHC1	Implement community notification protocols before, during, and after a disaster event
FHC2	Conduct regular disaster response drills in schools, and with staff at Assisted Living Facilities and Nursing Homes
FHC3	Continue and expand the use of citizen alert systems
FMC1	Continue campaigns like “Five-Dog Nights” in the county to distribute emergency kits/supplies to low-income and vulnerable populations
FLC1	Develop protocols and applications to communicate with individuals and households about emergency planning and shelter information (utilize Meals on Wheels lists and/or welfare check lists)
FLC2	Develop County agreements (possibly with women’s prison) for food services for county-supported shelters (including high school and Lake Monticello clubhouse)
FHM1	Develop a comprehensive fire safety communication strategy, addressing open space, burn permit, FireWise, and dry hydrants
FHM2	Adopt fire code
FHM3	Develop protocols and enforcement mechanisms for a burn ban
FHM4	Incorporate this Regional Hazard Mitigation Plan into local comprehensive plans and Emergency Operations Plans
FMM1	Identify areas to receive debris from post-event clean-up efforts
FMM2	Develop evacuation plans for dam breaches from Charlottesville-area dams

FLM1	Develop Continuity of Operations Plans (COOP) for locality departments and update the plans annually
FLM2	Develop county-wide evacuation plans for catastrophic incidents
FHD1	Develop a disaster plan for the Fork Union Sanitary District (FUSD)
FMD1	Expand GIS data for us in mitigation planning, preparedness planning, and response activities

Greene County	
GHI1	Partner with utility companies to keep power lines free of vegetation
GHI2	Conduct structural evaluations of current and proposed shelters
GHI3	Install backup generators in shelters and critical facilities
GHI4	Enhance public safety emergency communications to provide reliable, dependable coverage
GHI5	Enhance access to broadband county-wide
GHC1	Assist the schools with regular disaster response drills and disaster planning
GHM1	Continue and expand use of citizen alert systems
GHM2	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant buildings
GHM3	Ensure all critical facilities have updated shelter-in-place plans
GHM4	Update driveway codes to allow access for emergency vehicles
GHM5	Routinely inspect fire hydrants
GHM6	Update local stormwater ordinances to be in compliance with statewide regulations
GHM7	Increase number of trained emergency responders
GHM8	Ensure that all shelters and public buildings have a battery-powered emergency radio and flashlight
GME1	Develop cooperative agreements between all agencies involved in emergency management, provide methods of communication between agencies responsible for being present at the Emergency Operations Center following a disaster, and conduct joint exercises
GME2	Conduct FireWise workshops (in conjunction with the Virginia Department of Forestry)
GMI1	Add signage to roads in locations that frequently flood
GMM1	Incorporate hazard mitigation plan into other applicable community plans
GMM2	Conduct Community Emergency Response Team (CERT) classes to equip individuals and citizens to assist one another in the event of a disaster
GMM3	Investigate safety and maintenance of roads in private communities
GMM4	Develop and implement a Drought Management Plan
GMD1	Standardize GIS data for use in mitigation planning
GMD2	Conduct channel improvement study
GMD3	Create a needs survey that identifies special needs population and residences and/or facilities needing attention in the event of emergencies or evacuations
GMD4	Ensure evacuation routes are upgraded to proper standards
GLE1	Develop an all-hazard resource center
GLI1	Retrofit emergency services buildings for hazard resistance
GLI2	Build and repair bridges so as not to impede floodwaters
GLI3	Ensure culverts, streams, channels, storm drains, and gutters remain clear of debris
GLI4	Install more dry hydrants in high wildfire risk areas

GLC1	Update the Greene County Emergency Operations Plan
GLM1	Adopt more stringent policy to discourage floodplain development
GLM2	Provide paid fire and rescue staff
GLM3	Ensure all structures have clear address signs that are visible during snowstorms

Town of Stanardsville	
GSHM1	Increase water capacity and pressure for the Town of Stanardsville to enable optimal emergency response
GSMC1	Partner with Greene County to provide a mobile pet shelter for use during hazard events
GSMM1	Ensure all houses have clear address signs that are visible during snowstorms
GSLM1	Incorporate hazard mitigation plan into community plans

Louisa County	
LHI1	Enhance access to broadband internet in rural areas
LHI2	Install backup generators in shelters and critical facilities
LHI3	Implement recommendations from Water Supply Plan
LHI4	Ensure all shelters and public buildings have a battery-powered emergency radio & flashlight
LHC1	Ensure that all schools have regular disaster response drills
LHM1	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building
LHM2	Continue and expand use of citizen alert systems countywide, including within Towns
LHM3	Increase number of trained emergency responders
LHM4	Develop driveway codes to allow emergency vehicle access
LHM5	Improve local capabilities to perform earthquake building safety evaluations and enforce building codes in high seismic hazard areas
LMI1	Put high water marks on bridges
LMC1	Create a needs survey that identifies special need homes or facilities needing attention in case of emergencies or evacuations
LMM1	Investigate safety and maintenance of roads in private communities
LMM2	Conduct Community Emergency Response Team (CERT) classes to equip individuals and groups to assist in the event of a disaster
LMM3	Ensure all houses have clear address signs that are visible during snowstorms
LMM4	Incorporate hazard mitigation plans into community plans
LMM5	Incorporate special needs populations into Hazard Mitigation and Emergency Operations Plans
LLE1	Provide more education about the burn permit process
LLE2	Create an educational program to help residents understand the benefits and costs of earthquake insurance
LLI1	Equip owners of historic properties that may be more susceptible to earthquake damage with information about retrofitting structures to improve earthquake resistance
LLI2	Add signage to roads in locations that frequently flood
LLD1	Track and map space available for pets at local SPCA and other animal shelters

Town of Louisa	
LLHM1	Incorporate hazard mitigation plans into community plans
LLMM1	Ensure all houses have clear address signs that are visible during snowstorms
LLLI1	Bury utilities underground in town of Louisa

Town of Mineral	
LMHM1	Incorporate hazard mitigation plans into community plans
LMMM1	Ensure all houses have clear address signs that are visible during snowstorms
LMLI1	Bury utilities underground in town of Mineral

Nelson County	
NHI1	Install backup generators in shelters and critical facilities
NHM1	Continue and expand use of citizen alert systems
NHM2	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building
NHM3	Conduct Community Emergency Response Team (CERT) classes to equip individuals and groups to assist in the event of a disaster
NME1	Conduct Firewise Workshops
NME2	Provide educational instruction and materials to school age youth and their teachers on proper procedures for responding to natural disasters
NMI1	Investigate safety and maintenance of roads in private communities
NMM1	Ensure all houses have clear address signs that are visible during snowstorms
NLE1	Ensure that all homeowners and businesses located in areas prone to landslides are aware of the risks and appropriate responses to an event
NLI2	Maintain and add more fire rings in camping areas for controlled fires

2017 Detailed Action Items

[Activity Code] Mitigation Action: [Jurisdiction]	
Goal:	One of the goal categories listed above that is supported by the action
Action Item Description:	Brief description of action item
Hazard (s):	The hazard(s) the action is intended to mitigate
Lead Party:	Identify the local agency, department, or organization that is best suited to accomplish the action
Estimated Cost:	An estimate of the costs required to complete the project or continue the project for the course of 5 years; this amount should be estimated until a final dollar amount can be determined
Funding Method:	Potential sources of funds to complete the action, when applicable
Implementation Schedule:	Timeframe for which the action is expected to be completed
Priority	Placement in the order of importance and urgency

RHE1 Mitigation Action: Thomas Jefferson Region	
Goal:	Education and Outreach
Action Item Description:	Provide a copy of the Regional Hazard Mitigation Plan to each library in the Jefferson-Madison Regional Library system
Hazard (s):	Multiple
Lead Party Responsible:	TJPDC
Estimated Cost:	Minimal
Funding Method:	Regional Hazard Mitigation Planning Funds
Implementation Schedule:	6 months
Priority:	High

RME1 Mitigation Action: Thomas Jefferson Region	
Goal:	Education and Outreach
Action Item Description:	Conduct a public education program on disaster preparedness, leveraging existing materials and sharing resources regionally
Hazard (s):	Multiple
Lead Party Responsible:	Local Emergency Management Departments
Estimated Cost:	Unknown
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	Moderate

RMD1 Mitigation Action: Thomas Jefferson Region	
Goal:	Information and Data Development
Action Item Description:	Identify locations for deposit of debris after a hazard
Hazard (s):	Multiple
Lead Party Responsible:	VDEM, UVa
Estimated Cost:	\$5,000
Funding Method:	General funds
Implementation Schedule:	1-3 Years
Priority:	Moderate

AHE1 Mitigation Action: Albemarle County	
Goal:	Education and Outreach
Action Item Description:	Develop a Comprehensive fire safety communications/education strategy, addressing open space protection, the burn permit process, and "Ready, Set, Go Program" (Fire Wise workshops), and residential and business preparedness
Hazard (s):	Multiple
Lead Party Responsible:	Fire Rescue Dept., Dept. of Community Development
Estimated Cost:	\$10,000
Funding Method:	Hazard Mitigation Grant Program, General Revenue/Dept funding
Implementation Schedule:	Ongoing/new initiatives 1-3 years
Priority:	High

AHE2 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Increase the number of trained emergency responders, both staff and volunteers
Hazard (s):	Multiple
Lead Party Responsible:	Community Development Dept., Police Dept., Fire Rescue Dept., Emergency Communications Center/Charlottesville-Albemarle-UVA Emergency Mgt. Coordinator
Estimated Cost:	unknown
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	High

AHI1 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Implement recommendations from the Community Water Supply Plan, including water demand management/conservation and drought monitoring and management
Hazard (s):	Drought, Flood, adequate potable water
Lead Party Responsible:	RWSA, Dept. of Community Development, other County agencies
Estimated Cost:	Variable
Funding Method:	RWSA, flood control and dam safety programs/funds
Implementation Schedule:	3-5 years
Priority:	High

AHM1 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate this Regional Hazard Mitigation Plan into local comprehensive plans and Emergency Operations Plans
Hazard (s):	Multiple
Lead Party Responsible:	Community Development Dept., Thomas Jefferson Planning District Comm.
Estimated Cost:	None (other than staff costs)
Funding Method:	County operational budget (for staff time)
Implementation Schedule:	3-5 years
Priority:	moderate

AHM2 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Install fire mitigation measures, including dry hydrants, fire breaks, and fire rings.
Hazard (s):	Wildfire
Lead Party Responsible:	Fire Rescue Dept., Community Development Dept., Building Official, Dept. of Forestry
Estimated Cost:	Unknown; based on need
Funding Method:	Grant programs (Va. dry hydrant grant program)
Implementation Schedule:	Ongoing
Priority:	High

AHD1 Mitigation Action: Albemarle County	
Goal:	Information and Data Development
Action Item Description:	Assess resistance of existing critical facilities to natural hazards
Hazard (s):	
Lead Party Responsible:	
Estimated Cost:	
Funding Method:	
Implementation Schedule:	
Priority:	High

AHC1 Mitigation Action: Albemarle County	
Goal:	Whole Community
Action Item Description:	Continue to expand use of citizen alert system.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$5,000
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

AME1 Mitigation Action: Albemarle County	
Goal:	Education and Outreach
Action Item Description:	Ensure that all schools have regular disaster response drills
Hazard (s):	Multiple
Lead Party Responsible:	Dept. of Schools and Education; independent private school
Estimated Cost:	N/A
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

AME2 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Continue to pursue conservation practices in sensitive areas, including flood-prone areas.
Hazard (s):	Multiple
Lead Party Responsible:	Virginia Outdoors Foundation, Nature Conservancy, Thomas Jefferson Soil and Water Conservation District, Albemarle Co Public Recreational Facilities Authority, Albemarle Co Gov't, Community Development Dept.
Estimated Cost:	Based on individual property assessments and/or practices implemented
Funding Method:	Various
Implementation Schedule:	Ongoing
Priority:	Moderate

AMI1 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Build or repair bridges so as not to impede floodways
Hazard (s):	Flood
Lead Party Responsible:	Virginia Dept. of Transportation
Estimated Cost:	Unknown-based on individual projects
Funding Method:	State transportation funding; federal bridge funds/highway funds, Hazard Mitigation Grant Program, 406 Public Assistance Program (after disaster)
Implementation Schedule:	Ongoing (as bridges are maintained, repaired, replaced or newly built)
Priority:	Moderate

AMI2 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Upgrade bridges to support emergency vehicles
Hazard (s):	Multiple
Lead Party Responsible:	VDOT, Railroads
Estimated Cost:	Unknown-based on individual projects
Funding Method:	State transportation funding; federal bridge funds/highway funds, Hazard Mitigation Grant Program, 406 Public Assistance Program (after disaster)
Implementation Schedule:	Ongoing (as bridges are maintained, repaired, replaced or newly built)
Priority:	Moderate

AMI3 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Carry out physical security improvements to water and wastewater systems, which may include fencing, door hardening, window hardening, locks, bollards, cameras, signage, lighting, access control and intrusion detection.
Hazard (s):	Multiple
Lead Party Responsible:	RWSA
Estimated Cost:	Variable-based on individual projects
Funding Method:	RWSA funds/CIP
Implementation Schedule:	3-5 years
Priority:	Moderate

AMI4 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Procure technology equipment for Water/Wastewater system component inspections.
Hazard (s):	Structural
Lead Party Responsible:	RWSA
Estimated Cost:	Unknown
Funding Method:	RWSA funds/CIP
Implementation Schedule:	3-5 years
Priority:	Moderate

AMM1 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Implement recommendations from Drought Management Plan
Hazard (s):	Drought
Lead Party Responsible:	RWSA
Estimated Cost:	Variable – linked to Water Supply projects
Funding Method:	RWSA
Implementation Schedule:	Ongoing
Priority:	Moderate

AMM2 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Through the development process, discourage or disallow development in flood-prone areas
Hazard (s):	Flood
Lead Party Responsible:	Community Development Dept.
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

AMM3 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Provide planning support for water and wastewater systems operational and integrated security management.
Hazard (s):	Multiple
Lead Party Responsible:	RWSA, ACSA, Community Development Dept.
Estimated Cost:	none
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

AMM4 Mitigation Action: Albemarle County	
Goal:	Mitigation Capacity
Action Item Description:	Seek financial support for an integrated regional camera and monitoring system, including research, planning, procurement, implementation, management and maintenance.
Hazard (s):	Multiple
Lead Party Responsible:	
Estimated Cost:	
Funding Method:	
Implementation Schedule:	
Priority:	Moderate

AMD1 Mitigation Action: Albemarle County	
Goal:	Information and Data Development
Action Item Description:	Expand GIS data for use in mitigation planning, preparedness planning, and response activities
Hazard (s):	Multiple
Lead Party Responsible:	Community Development Dept., TJPDC., Emergency Communications Center/Charlottesville-Albemarle-UVA Emergency Mgt. Coordinator
Estimated Cost:	\$70,000
Funding Method:	General Revenue, Hazard Mitigation Grant Program, ESRI, Pre-Disaster Mitigation Grant, Dept. of Interior Geologic Mapping Program
Implementation Schedule:	2-5 years
Priority:	Moderate

ALE1 Mitigation Action: Albemarle County	
Goal:	Education and Outreach
Action Item Description:	Encourage property owners and residents to clear creek beds, storm drain inlets, ditches and channels, and to remove debris where flooding has increased.
Hazard (s):	Flood
Lead Party Responsible:	Facilities and Environmental Services Dept., Forestry Dept.
Estimated Cost:	Unknown, based on need
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	Low

ALE2 Mitigation Action: Albemarle County	
Goal:	Education and Outreach
Action Item Description:	Ensure all houses and businesses have clear address signs that are visible during snowstorms and other emergencies
Hazard (s):	Multiple
Lead Party Responsible:	Community Development Dept, Fire-Rescue Dept., County Executive's Office
Estimated Cost:	\$4,000
Funding Method:	General Revenues
Implementation Schedule:	Ongoing
Priority:	Low

ALE3 Mitigation Action: Albemarle County	
Goal:	Education and Outreach
Action Item Description:	Continue educational campaign about the benefits of open space and sensitive area protection.
Hazard (s):	Multiple
Lead Party Responsible:	Virginia Outdoors Foundation, Nature Conservancy, Thomas Jefferson Soil and Water Conservation District, Albemarle Co Public Recreational Facilities Authority, Community Development Dept.
Estimated Cost:	Variable
Funding Method:	County funding, State funds for farmland and open space preservation (VDACS Farmland Preservation)
Implementation Schedule:	Ongoing
Priority:	Low

ALC1 Mitigation Action: Albemarle County	
Goal:	Whole Community
Action Item Description:	Increase the capacity to shelter in place in public buildings
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Communications Center/Charlottesville-Albemarle-UVA Emergency Mgt. Coordinator
Estimated Cost:	Unknown
Funding Method:	General Revenue, FEMA funds/grants
Implementation Schedule:	Ongoing
Priority:	Low

ALI1 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Improve the maintenance of stormwater conveyance system.
Hazard (s):	Flood
Lead Party Responsible:	Facilities and Environmental Services Dept., VDOT
Estimated Cost:	Unknown
Funding Method:	EPA – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee, County funding (CIP)
Implementation Schedule:	Ongoing
Priority:	Low

ALI2 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Implement Stormwater Management Plan to reduce floodwater and pollution discharge via stormwater systems.
Hazard (s):	Flood
Lead Party Responsible:	Facilities and Environmental Services Dept.
Estimated Cost:	Unknown, based on need
Funding Method:	Environmental Protection Agency – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee, County funding (CIP)
Implementation Schedule:	Ongoing
Priority:	Low

ALI3 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Maintain and Retrofit stormwater management basins/facilities including dam maintenance and upgrades
Hazard (s):	Flood
Lead Party Responsible:	Facilities and Environmental Services Dept.
Estimated Cost:	Unknown, based on individual projects
Funding Method:	Environmental Protection Agency – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee, County funding (CIP)
Implementation Schedule:	Ongoing
Priority:	Low

ALI4 Mitigation Action: Albemarle County	
Goal:	Infrastructure and Buildings
Action Item Description:	Partner with utility companies to keep power lines free of vegetation
Hazard (s):	Multiple
Lead Party Responsible:	County Executive's Office, Community Development
Estimated Cost:	Unknown
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Low

AL15 Mitigation Action: Albemarle County	
Goal:	Education and Outreach
Action Item Description:	Reduce pollution discharge via stormwater systems
Hazard (s):	Flood, contamination
Lead Party Responsible:	Community Development Dept., Facilities and Environmental Services
Estimated Cost:	Unknown, based on need
Funding Method:	EPA – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee
Implementation Schedule:	Ongoing
Priority:	Low

ASMM1 Mitigation Action: Town of Scottsville	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses and businesses have clear address signs that are visible during snowstorms and other emergencies
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Low

ASLM1 Mitigation Action: Town of Scottsville	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans
Hazard (s):	Multiple
Lead Party Responsible:	Town Planning Commission
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-5 years
Priority:	Moderate

ASLI1 Mitigation Action: Town of Scottsville	
Goal:	Mitigation Capacity
Action Item Description:	Establish a weather monitoring station in Scottsville to enhance situational awareness on weather system impacts in the southern edge of the County and along the James River
Hazard (s):	Floods, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	Unknown
Funding Method:	Unknown
Implementation Schedule:	3-5 years
Priority:	Low

CHE1 Mitigation Action: City of Charlottesville	
Goal:	Education and Outreach
Action Item Description:	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building.
Hazard (s):	Multiple
Lead Party Responsible:	Neighborhood Development Services, Public Works
Estimated Cost:	\$10,000
Funding Method:	Hazard Mitigation Grant Program, General Revenue
Implementation Schedule:	1-3 years
Priority:	High

CHE2 Mitigation Action: City of Charlottesville	
Goal:	Education and Outreach
Action Item Description:	Ensure that all schools have regular disaster response drills.
Hazard (s):	Multiple
Lead Party Responsible:	Public School System, independent private schools
Estimated Cost:	N/A
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	High

CHI1 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Implement recommendations from the Community Water Supply Plan.
Hazard (s):	Drought, Flood
Lead Party Responsible:	RWSA
Estimated Cost:	\$140,000,000
Funding Method:	RWSA, Flood control and dam safety program funds
Implementation Schedule:	Ongoing
Priority:	High

CHM1 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans.
Hazard (s):	Multiple
Lead Party Responsible:	Neighborhood Development Services
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	3-5 years
Priority:	High

CHM2 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Conduct Community Emergency Response Team (CERT) classes to equip individuals and groups to assist in the event of a disaster.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$10,000
Funding Method:	FEMA Community Emergency Response Teams, FEMA Emergency Management Performance Grant
Implementation Schedule:	Ongoing
Priority:	High

CHM3 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Provide incentives to institutions and homeowners for use of low-flow appliances.
Hazard (s):	Drought
Lead Party Responsible:	Neighborhood Development Services
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	High

CHM4 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Continue to expand use of citizen alert system.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$5,000
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

CHM5 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Implement recommendations from Drought Management Plan.
Hazard (s):	Drought
Lead Party Responsible:	RWSA
Estimated Cost:	Linked to Water Supply Projects
Funding Method:	RWSA
Implementation Schedule:	Ongoing
Priority:	High

CHM6 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Ensure that all shelters and public buildings have a battery-powered emergency radio and flashlight.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$40/location
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

CME1 Mitigation Action: City of Charlottesville	
Goal:	Education and Outreach
Action Item Description:	Support purchase of rain barrels.
Hazard (s):	Drought
Lead Party Responsible:	Public Works
Estimated Cost:	\$10,000
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	Moderate

CMI1 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Build or repair bridges so as not to impede floodwaters
Hazard (s):	Flood
Lead Party Responsible:	VDOT
Estimated Cost:	Unknown
Funding Method:	Hazard Mitigation Grant Program, 406 Public Assistance Program
Implementation Schedule:	When bridges are repaired/replaced
Priority:	Moderate

CMI2 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Add signage to roads in locations that frequently flood.
Hazard (s):	Flood
Lead Party Responsible:	Virginia Department of Transportation, Public Works
Estimated Cost:	Unknown
Funding Method:	406 Public Assistance Program (following a disaster), Hurricane Local Grant Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant
Implementation Schedule:	3-5 years
Priority:	Moderate

CMI3 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Retrofit emergency service buildings for hazard resistance.
Hazard (s):	Structural
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Unknown
Funding Method:	All hazards Emergency Operations Planning, Assistance to Local Firefighters Grant, Local Hurricane Grant Program, Pre-Disaster Mitigation Grant, Hazard Mitigation Grant Program
Implementation Schedule:	3-5 years
Priority:	Moderate

CMM1 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Support volunteer groups and encourage collaboration on public outreach and education programs on hazard mitigation.
Hazard (s):	Multiple
Lead Party Responsible:	All City Departments, Emergency Services Coordinator
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

CMM2 Mitigation Action: City of Charlottesville	
Goal:	Mitigation Capacity
Action Item Description:	Create a strategy for using existing media outlets for communications during a hazard event.
Hazard (s):	Flood
Lead Party Responsible:	Office of Communications
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

CLE1 Mitigation Action: City of Charlottesville	
Goal:	Education and Outreach
Action Item Description:	Provide citizens with literature about flood and drought-smart landscaping.
Hazard (s):	Drought
Lead Party Responsible:	Neighborhood Development Services, Public Works
Estimated Cost:	\$5,000
Funding Method:	Pre-Disaster Mitigation Grant, Hazard Mitigation Grant Program
Implementation Schedule:	3-5 years
Priority:	Low

CLE2 Mitigation Action: City of Charlottesville	
Goal:	Education and Outreach
Action Item Description:	Create educational campaign about the benefits of open space and sensitive area protection.
Hazard (s):	Multiple
Lead Party Responsible:	Neighborhood Development Services
Estimated Cost:	\$2,000
Funding Method:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant
Implementation Schedule:	Ongoing
Priority:	Low

CLI1 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Improve the maintenance of stormwater conveyance system.
Hazard (s):	Flood
Lead Party Responsible:	Public Works
Estimated Cost:	Unknown
Funding Method:	Environmental Protection Agency – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee
Implementation Schedule:	Ongoing
Priority:	Low

CLI2 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Reduce pollution discharge via stormwater systems.
Hazard (s):	Flood
Lead Party Responsible:	Public Works
Estimated Cost:	Unknown, based on need
Funding Method:	Environmental Protection Agency – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee
Implementation Schedule:	Ongoing
Priority:	Low

CLI3 Mitigation Action: City of Charlottesville	
Goal:	Infrastructure and Buildings
Action Item Description:	Retrofit stormwater management basins
Hazard (s):	Flood
Lead Party Responsible:	Public Works
Estimated Cost:	Unknown, based on individual projects
Funding Method:	Environmental Protection Agency – Water Quality Cooperative Agreements, EPA-Nonpoint Source Grant Program, 406 Public Assistance (following a federally declared disaster), USDA-Watershed Protection and Flood Prevention Program, USDA-Environmental Quality Incentives Program, Stormwater Utility Fee
Implementation Schedule:	Ongoing
Priority:	Low

FHE1 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Ensure all houses and businesses have clear address signs that are visible during snowstorms and other emergencies
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$250,000
Funding Method:	Grants and/or CIP
Implementation Schedule:	1-3 years
Priority:	High

FHE2 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Carry out an educational campaign for businesses to develop emergency procedures and shelter-in-place plans
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	High

FME1 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Carry out a targeted educational campaign in subdivisions at high risk for fire impacts
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator and Fire-Rescue Association
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	Medium

FME2 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Conduct tabletop exercises for damage assessments
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator; Public Works; Building Inspections
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	Medium

FME3 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Bring in experts to conduct in-house staff training in best management practices in hazard mitigation and preparedness
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, Public Works, Building Inspections
Estimated Cost:	\$5,000
Funding Method:	grants
Implementation Schedule:	1-3 years
Priority:	Medium

FME4 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Offer training on post-event inspection and develop a protocol to serve as a mechanism for prioritization
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator; Public Works; Building Inspections
Estimated Cost:	
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	High

FME5 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Increase the number of trained emergency responders, both staff and volunteers
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$3,000
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	Medium

FME6 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Conduct FireWise workshops
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator and Fire-Rescue Association
Estimated Cost:	Staff time and supplies
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	Medium

FME7 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Provide educational information about burn laws permit process
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator and Fire-Rescue Association
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	Medium

FLE1 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Promote CERT training opportunities available in the region to equip individuals and groups to assist in the event of a disaster
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$1,000
Funding Method:	Grants and/or General Fund
Implementation Schedule:	1-3 years
Priority:	Low

FLE2 Mitigation Action: Fluvanna County	
Goal:	Education and Outreach
Action Item Description:	Cross-train current volunteers across other County functional areas
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff time and supplies
Funding Method:	
Implementation Schedule:	Ongoing
Priority:	Low

FH1 Mitigation Action: Fluvanna County	
Goal:	Infrastructure and Buildings
Action Item Description:	Install warning signs and develop alternate routes for roads that flood briefly during heavy rains (e.g. Slaters Fork Road, Carysbrook, farm pond dam locations)
Hazard (s):	Multiple
Lead Party Responsible:	Public Works
Estimated Cost:	\$5,000
Funding Method:	Grants
Implementation Schedule:	1-3 years
Priority:	High

FH2 Mitigation Action: Fluvanna County	
Goal:	Infrastructure and Buildings
Action Item Description:	Install new fire hydrants along new JRWA water line on east side of County
Hazard (s):	Multiple
Lead Party Responsible:	Public Works
Estimated Cost:	\$200,000
Funding Method:	Grants, Fund balance
Implementation Schedule:	1-3 years
Priority:	High

FM1 Mitigation Action: Fluvanna County	
Goal:	Infrastructure and Buildings
Action Item Description:	Identify vulnerable structures and apply for funding to implement acquisition and demolition, relocation, floodproofing, or structural retrofit projects
Hazard (s):	Multiple
Lead Party Responsible:	Building Inspections, Emergency Services Coordinator
Estimated Cost:	
Funding Method:	
Implementation Schedule:	3-5 years
Priority:	Medium

FM2 Mitigation Action: Fluvanna County	
Goal:	Infrastructure and Buildings
Action Item Description:	Demolish and remove remains of old surface water-treatment plant located on TM 58 A 26 & 27(County-owned property)
Hazard (s):	Multiple, but primarily: 1) Property is in flood plain – materials, including a +/- 20,000 gallon water storage tank, could be washed downstream by flood waters. 2) Attractive nuisance.
Lead Party Responsible:	Public Works, FUSD, Building Inspections, Emergency Services Coordinator
Estimated Cost:	\$25,000 (SWAG)
Funding Method:	Unknown
Implementation Schedule:	1-3 years
Priority:	Medium

FMI3 Mitigation Action: Fluvanna County	
Goal:	Infrastructure and Buildings
Action Item Description:	Remove +/-20,000 gallon water storage tank from James River.
Hazard (s):	Multiple, but primarily flooding: 1) Future floods could dislodge it from its current resting place and wash it further down stream. 2) Attractive nuisance.
Lead Party Responsible:	Public Works, FUSD, Building Inspections, Emergency Services Coordinator
Estimated Cost:	\$50,000 (SWAG)
Funding Method:	Unknown
Implementation Schedule:	1-3 years
Priority:	Medium

FLI1 Mitigation Action: Fluvanna County	
Goal:	Infrastructure and Buildings
Action Item Description:	Identify repetitive loss properties, develop appropriate mitigation action, and apply for funding
Hazard (s):	Multiple
Lead Party Responsible:	Building Inspections, Emergency Services Coordinator
Estimated Cost:	
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	Low

FHC1 Mitigation Action: Fluvanna County	
Goal:	Whole Community
Action Item Description:	Implement community notification protocols before, during, and after a disaster event
Hazard (s):	Multiple
Lead Party Responsible:	Public Safety
Estimated Cost:	
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	High

FHC2 Mitigation Action: Fluvanna County	
Goal:	Whole Community
Action Item Description:	Conduct regular disaster response drills in schools, and with staff at Assisted Living Facilities and Nursing Homes
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, Schools
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	High

FHC3 Mitigation Action: Fluvanna County	
Goal:	Whole Community
Action Item Description:	Continue and expand the use of citizen alert systems
Hazard (s):	Multiple
Lead Party Responsible:	Public Safety
Estimated Cost:	\$10,000
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	High

FMC1 Mitigation Action: Fluvanna County	
Goal:	Whole Community
Action Item Description:	Continue campaigns like “Five-Dog Nights” in the county to distribute emergency kits/supplies to low-income and vulnerable populations
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$3,000
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	Medium

FMC2 Mitigation Action: Fluvanna County	
Goal:	Whole Community
Action Item Description:	Develop protocols and applications to communicate with individuals and households about emergency planning and shelter information (utilize Meals on Wheels lists and/or welfare check lists)
Hazard (s):	Multiple
Lead Party Responsible:	Public Safety, Emergency Services Coordinator
Estimated Cost:	
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	Medium

FLC1 Mitigation Action: Fluvanna County	
Goal:	Whole Community
Action Item Description:	Develop County agreements (possibly with women’s prison) for food services for county-supported shelters (including high school and Lake Monticello clubhouse)
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	Low

FHM1 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Develop a comprehensive fire safety communication strategy, addressing open space, burn permit, FireWise, and dry hydrants
Hazard (s):	Multiple
Lead Party Responsible:	Fire & Rescue Association, Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	High

FHM2 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Adopt fire code
Hazard (s):	Multiple
Lead Party Responsible:	Fire & Rescue Association, Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	High

FHM3 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Develop protocols and enforcement mechanisms for a burn ban
Hazard (s):	Multiple
Lead Party Responsible:	Fire & Rescue Association, Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	High

FHM4 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate this Regional Hazard Mitigation Plan into local comprehensive plans and Emergency Operations Plans
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, Planning Department
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	High

FMM1 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Identify areas to receive debris from post-event clean-up efforts
Hazard (s):	Multiple
Lead Party Responsible:	Public Works
Estimated Cost:	
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	Medium

FMM2 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Develop evacuation plans for dam breaches from Charlottesville-area dams
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	Medium

FLM1 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Develop Continuity of Operations Plans (COOP) for locality departments and update the plans annually
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	3-5 years
Priority:	Low

FLM2 Mitigation Action: Fluvanna County	
Goal:	Mitigation Capacity
Action Item Description:	Develop county-wide evacuation plans for catastrophic incidents
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	Low

FHD1 Mitigation Action: Fluvanna County	
Goal:	Information and Data Development
Action Item Description:	Develop a disaster plan for the Fork Union Sanitary District (FUSD)
Hazard (s):	Multiple
Lead Party Responsible:	FUSD, Emergency Services Coordinator
Estimated Cost:	Staff time
Funding Method:	n/a
Implementation Schedule:	1-3 years
Priority:	High

FMD1 Mitigation Action: Fluvanna County	
Goal:	Information and Data Development
Action Item Description:	Expand GIS data for use in mitigation planning, preparedness planning, and response activities
Hazard (s):	Multiple
Lead Party Responsible:	Planning Administrator
Estimated Cost:	
Funding Method:	
Implementation Schedule:	1-3 years
Priority:	medium

GH11 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Partner with utility companies to keep power lines free of vegetation
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development, Emergency Services Coordinator
Estimated Cost:	Unknown
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

GH12 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Conduct structural evaluations of all current and proposed shelters
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, Department of Community Development - Building Code and Inspections
Estimated Cost:	Staff time and resources; Red Cross provides technical assistance and design criteria
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	High

GHI3 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Install backup generators in shelters and critical facilities.
Hazard (s):	Multiple
Lead Party Responsible:	County Administrator, Emergency Services Coordinator
Estimated Cost:	\$60,000-\$70,000/project
Funding Method:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant, All Hazards Emergency Operations Planning Grant
Implementation Schedule:	1-5 Years
Priority:	High

GHI4 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Enhance public safety emergency communications to provide reliable, dependable coverage
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$7,500,000
Funding Method:	General Revenue, Grants
Implementation Schedule:	1-3 Years
Priority:	High

GHI5 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Enhance access to broadband county-wide
Hazard (s):	Multiple
Lead Party Responsible:	County Administration
Estimated Cost:	Unknown
Funding Method:	General Revenue, Grants
Implementation Schedule:	Ongoing
Priority:	High

GHC1 Mitigation Action: Greene County	
Goal:	Whole Community
Action Item Description:	Assist the schools with regular disaster response drills and disaster planning
Hazard (s):	Multiple
Lead Party Responsible:	Public School System, Individual private schools
Estimated Cost:	N/A
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	High

GHM1 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Continue and expand use of the citizen alert system.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$5,000
Funding Method:	General Revenue, pre-disaster mitigation funds
Implementation Schedule:	Ongoing
Priority:	High

GHM2 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building.
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development
Estimated Cost:	\$10,000
Funding Method:	Hazard Mitigation Grant Program, General Revenue
Implementation Schedule:	1-3 years
Priority:	High

GHM3 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all critical facilities have updated shelter-in-place plans
Hazard (s):	Multiple
Lead Party Responsible:	Building, Planning, Emergency Services Coordinator
Estimated Cost:	Minimal / Staff Time
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	High

GHM4 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Update driveway codes to allow access for emergency vehicles.
Hazard (s):	Multiple
Lead Party Responsible:	Planning Department
Estimated Cost:	None / Staff time
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	High

GHM5 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Routinely inspect fire hydrants.
Hazard (s):	Wildfire
Lead Party Responsible:	Fire Departments, Rapidan Service Authority
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	High

GHM6 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Update local stormwater ordinances to be in compliance with statewide regulations
Hazard (s):	Flood
Lead Party Responsible:	Planning Department
Estimated Cost:	Staff time
Funding Method:	General Revenue, EPA Chesapeake Bay Act
Implementation Schedule:	2 – 4 Years
Priority:	High

GHM7 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Increase number of trained emergency responders
Hazard (s):	Multiple
Lead Party Responsible:	County Office of Emergency Services, Volunteer fire and rescue agencies
Estimated Cost:	Unknown
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

GHM8 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Ensure that all shelters and public buildings have a battery-powered emergency radio and flashlight
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$40 per location
Funding Method:	General Revenue, Grants
Implementation Schedule:	Ongoing
Priority:	High

GME1 Mitigation Action: Greene County	
Goal:	Education and Outreach
Action Item Description:	Develop cooperative agreements between all agencies involved in emergency management, provide methods of communication between agencies responsible for being present at Emergency Operations Center following disaster, and conduct joint emergency exercises
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	None – Staff time
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

GME2 Mitigation Action: Greene County	
Goal:	Education and Outreach
Action Item Description:	Conduct FireWise workshops (in conjunction with the Virginia Department of Forestry)
Hazard (s):	Wildfire
Lead Party Responsible:	Virginia Department of Forestry, Emergency Services Coordinator
Estimated Cost:	\$1,000
Funding Method:	Virginia FireWise grant
Implementation Schedule:	2-5 years
Priority:	Moderate

GMI1 Mitigation Action: Greene County	
Goal:	Infrastructure and Building
Action Item Description:	Add signage to roads in locations that frequently flood
Hazard (s):	Flood
Lead Party Responsible:	Virginia Department of Transportation
Estimated Cost:	Unknown
Funding Method:	Public Assistance Program, Grants, General Revenue
Implementation Schedule:	1-3 years
Priority:	Moderate

GMM1 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development - Planning
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-2 years
Priority:	Moderate

GMM2 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Conduct Community Emergency Response Team (CERT) classes to equip individuals and citizens to assist in the event of a disaster
Hazard (s):	Multiple
Lead Party Responsible:	Law enforcement
Estimated Cost:	Unknown
Funding Method:	FEMA Community Emergency Response Teams, FEMA Emergency Management Performance Grant
Implementation Schedule:	Ongoing
Priority:	Moderate

GMM3 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Investigate safety and maintenance of roads in private communities.
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development, Emergency Services Coordinator
Estimated Cost:	Staff Time and Resources
Funding Method:	N/A
Implementation Schedule:	2-5 years
Priority:	Moderate

GMM4 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Develop and implement a Drought Management Plan
Hazard (s):	Drought
Lead Party Responsible:	Greene County Office of Emergency Services, Rapidan Service Authority
Estimated Cost:	Staff Time and Resources
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

GMD1 Mitigation Action: Greene County	
Goal:	Information and Data Development
Action Item Description:	Standardize GIS data for use in mitigation planning
Hazard (s):	Multiple
Lead Party Responsible:	Planning Department or GIS consultant
Estimated Cost:	\$50,000
Funding Method:	Hazard Mitigation Grant Program, General Revenue, ESRI Grants
Implementation Schedule:	2-5 years
Priority:	Moderate

GMD2 Mitigation Action: Greene County	
Goal:	Information and Data Development
Action Item Description:	Conduct channel improvement study
Hazard (s):	Floods
Lead Party Responsible:	Army Corps of Engineers
Estimated Cost:	\$20,000
Funding Method:	External Sources
Implementation Schedule:	Watershed Protection and Flood Prevention Program (Department of Agriculture, National Resource Conservation Service)
Priority:	Moderate

GMD3 Mitigation Action: Greene County	
Goal:	Information and Data Development
Action Item Description:	Create a need survey that identifies special needs population and residences and/or facilities needing attention in the event of emergencies or evacuations
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, Social Services, Planning Department
Estimated Cost:	\$3,000
Funding Method:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant, General Revenue, All-Hazards Emergency Operations Planning
Implementation Schedule:	1-3 years
Priority:	Moderate

GMD4 Mitigation Action: Greene County	
Goal:	Information and Data Development
Action Item Description:	Identify and evaluate evacuation routes are updated to determine/update to proper standards.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, VDOT
Estimated Cost:	Staff time
Funding Method:	Pre-Disaster Mitigation Grant, general revenue
Implementation Schedule:	1-3 years
Priority:	Moderate

GLE1 Mitigation Action: Greene County	
Goal:	Education and Outreach
Action Item Description:	Develop an all-hazard resource center.
Hazard (s):	Multiple
Lead Party Responsible:	Public Safety, TJPDC
Estimated Cost:	\$5,000
Funding Method:	Pre-Disaster Mitigation Grant, Hazard Mitigation Grant Program, General Revenue
Implementation Schedule:	3-5 years
Priority:	Low

GLI1 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Retrofit emergency services building for hazard resistance.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services, Building Services, Engineer
Estimated Cost:	Dependent upon evaluation
Funding Method:	Pre-Disaster Mitigation, All Hazard Emergency Operation Planning Grant, Hazard Mitigation Grant Program
Implementation Schedule:	2-5 years
Priority:	Low

GLI2 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Build and repair bridges so as not to impede floodwaters.
Hazard (s):	Flood
Lead Party Responsible:	Department of Community Development, VDOT
Estimated Cost:	Dependent upon number and type of structures.
Funding Method:	VDOT primary road funds, County secondary road funds, 406 Public Assistance Program (following a disaster), Hurricane Local Grant Program
Implementation Schedule:	5+ years
Priority:	Low

GLI3 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Ensure culverts, streams, channels, storm drains, and gutters remain clear of debris.
Hazard (s):	Flood
Lead Party Responsible:	Department of Community Development, VDOT
Estimated Cost:	Minimal – staff time & labor
Funding Method:	General Revenue, EPA Chesapeake Bay Act
Implementation Schedule:	Ongoing
Priority:	Low

GLI4 Mitigation Action: Greene County	
Goal:	Infrastructure and Buildings
Action Item Description:	Install more dry hydrants in high wildfire risk areas
Hazard (s):	Wildfire
Lead Party Responsible:	Virginia Department of Forestry, Greene County Office of Em. Services
Estimated Cost:	Unknown
Funding Method:	Virginia Dry Hydrant Grant Program
Implementation Schedule:	3-5 years
Priority:	Low

GLC1 Mitigation Action: Greene County	
Goal:	Whole Community
Action Item Description:	Update Greene County Emergency Operations Plan
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Staff Time
Funding Method:	General Revenue
Implementation Schedule:	2 Years
Priority:	Low

GLM1 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Adopt more stringent policy to discourage floodplain development.
Hazard (s):	Floods
Lead Party Responsible:	Planning Department
Estimated Cost:	Staff time
Funding Method:	N/A
Implementation Schedule:	In next zoning code and subdivision code updates.
Priority:	Low

GLM2 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Provide paid fire and rescue staff
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	Unknown
Funding Method:	General Revenue
Implementation Schedule:	3-5 years
Priority:	Low

GLM3 Mitigation Action: Greene County	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses have clear address signs that are visible during snowstorms
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Planning Department
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Low

GSHM1 Mitigation Action: Town of Stanardsville	
Goal:	Mitigation Capacity
Action Item Description:	Increase water capacity and pressure for the Town of Stanardsville to enable optimal emergency response
Hazard (s):	Multiple
Lead Party Responsible:	Rapidan Service Authority
Estimated Cost:	\$5 – 6 Million
Funding Method:	RSA funds, Community Development Block Grant
Implementation Schedule:	5+ Years
Priority:	High

GSMC1 Mitigation Action: Town of Stanardsville	
Goal:	Whole Community
Action Item Description:	Partner with Greene County to provide a mobile pet shelter for use during hazard events
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Coordinator
Estimated Cost:	\$50,000
Funding Method:	Pre-hazard Mitigation Funds
Implementation Schedule:	2-4 Years
Priority:	Moderate

GSM1 Mitigation Action: Town of Stanardsville	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses have clear address signs that are visible during snowstorms
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

GSLM1 Mitigation Action: Town of Stanardsville	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development - Planning
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-2 years
Priority:	Low

LHI1 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Enhance access to broadband internet in rural areas
Hazard (s):	Multiple
Lead Party Responsible:	Planning Department
Estimated Cost:	Unknown
Funding Method:	Rural Broadband Planning Initiative, Telecommunications firms
Implementation Schedule:	Ongoing
Priority:	High

LHI2 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Install backup generators in shelters and critical facilities.
Hazard (s):	Multiple
Lead Party Responsible:	County Administrator
Estimated Cost:	\$5,000-\$15,000/generator
Funding Method:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant, All Hazards Emergency Operations Planning Grant
Implementation Schedule:	1-5 Years
Priority:	High

LHI3 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Implement recommendations from the Water Supply Plan
Hazard (s):	Drought, Flood
Lead Party Responsible:	Planning & Community Development Department
Estimated Cost:	\$150 M - \$200 M
Funding Method:	General Revenue, Flood control and dam safety program funds
Implementation Schedule:	Ongoing
Priority:	High

LHI4 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Ensure all shelters and public buildings have a battery-powered emergency radio and flashlight
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$40/location
Funding Method:	General Revenue
Implementation Schedule:	1 year
Priority:	High

LHC1 Mitigation Action: Louisa County	
Goal:	Whole Community
Action Item Description:	Ensure that all schools have regular disaster response drills
Hazard (s):	Multiple
Lead Party Responsible:	Public School System, Individual private schools
Estimated Cost:	N/A
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	High

LHM1 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building.
Hazard (s):	Multiple
Lead Party Responsible:	Department of Public Works
Estimated Cost:	\$10,000
Funding Method:	Hazard Mitigation Grant Program, General Revenue
Implementation Schedule:	1-3 years
Priority:	High

LHM2 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Continue and expand use of the citizen alert system, including with towns.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$5,000
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

LHM3 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Increase number of trained citizen emergency responders
Hazard (s):	Multiple
Lead Party Responsible:	EMT
Estimated Cost:	\$5,000
Funding Method:	Hazard Mitigation Grant Program
Implementation Schedule:	Ongoing
Priority:	High

LHM4 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Develop driveway codes to allow access for emergency vehicles.
Hazard (s):	Multiple
Lead Party Responsible:	Planning Department
Estimated Cost:	None / Staff time
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	High

LHM5 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Improve local capabilities to perform earthquake building safety evaluations and enforce building codes in high seismic hazard areas.
Hazard (s):	Earthquake
Lead Party Responsible:	Planning Department, County Administrator
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	High

LMI1 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Put high water marks on bridges.
Hazard (s):	Flood
Lead Party Responsible:	Virginia Department of Transportation, Public Works
Estimated Cost:	\$15,000
Funding Method:	406 Public Assistance Program (following a disaster), Hurricane Local Grant Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant
Implementation Schedule:	2-5 years
Priority:	Moderate

LMP1 Mitigation Action: Louisa County	
Goal:	People and Vulnerable Populations
Action Item Description:	Create a needs survey that identifies special needs homes or facilities in need of attention in case of emergencies or evacuations
Hazard (s):	Multiple
Lead Party Responsible:	EMS
Estimated Cost:	\$5,000
Funding Method:	Pre-Disaster Mitigation Grant, Hazard Mitigation Grant Program
Implementation Schedule:	3-5 years
Priority:	Moderate

LMM1 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Investigate safety and maintenance of roads in private communities.
Hazard (s):	Multiple
Lead Party Responsible:	Public Works, Emergency Management
Estimated Cost:	Staff Time and Resources
Funding Method:	N/A
Implementation Schedule:	2-5 years
Priority:	Moderate

LMM2 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Conduct Community Emergency Response Team (CERT) classes to equip individuals and groups to assist in the event of a disaster
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$10,000
Funding Method:	FEMA Community Emergency Response Teams, FEMA Emergency Management Performance Grant
Implementation Schedule:	Ongoing
Priority:	Moderate

LMM3 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses have clear address signs that are visible during snowstorms
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

LMM4 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development - Planning
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-2 years
Priority:	Moderate

LMM5 Mitigation Action: Louisa County	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate Special Needs Populations into Mitigation and Emergency Operations Plans
Hazard (s):	Multiple
Lead Party Responsible:	EMS
Estimated Cost:	Staff time and resources.
Funding Method:	N/A
Implementation Schedule:	1-3 years
Priority:	Moderate

LLE1 Mitigation Action: Louisa County	
Goal:	Education and Outreach
Action Item Description:	Provide educational information about the burn permit process.
Hazard (s):	Multiple
Lead Party Responsible:	Department of Forestry, Department of Public Works, County Executive's Office – Community Relations
Estimated Cost:	Staff time and resources; additional costs possible
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	Low

LLE2 Mitigation Action: Louisa County	
Goal:	Education and Outreach
Action Item Description:	Create an educational program to help residents understand the benefits and costs of earthquake insurance
Hazard (s):	Earthquake
Lead Party Responsible:	Insurance Companies, County Administrator
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Low

LLI1 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Equip owners of historic properties that may be more susceptible to earthquake damage with information about retrofitting structures to improve earthquake resistance
Hazard (s):	Earthquake
Lead Party Responsible:	Virginia Department of Historic Resources
Estimated Cost:	Unknown
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Low

LLI2 Mitigation Action: Louisa County	
Goal:	Infrastructure and Buildings
Action Item Description:	Add signage to roads in locations that frequently flood.
Hazard (s):	Flood
Lead Party Responsible:	EMS, VDOT
Estimated Cost:	\$10,000
Funding Method:	406 Public Assistance Program (following a disaster), Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant, All Hazards Emergency Operations Planning Grant
Implementation Schedule:	3-5 years
Priority:	Low

LLD1 Mitigation Action: Louisa County	
Goal:	Information and Data Development
Action Item Description:	Track and map space available for pets at local SPCA and other animal shelters.
Hazard (s):	Multiple
Lead Party Responsible:	Planning Department, EMS
Estimated Cost:	Staff Time and Resources
Funding Method:	N/A
Implementation Schedule:	1-5 years
Priority:	Low

LLHM1 Mitigation Action: Town of Louisa	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development - Planning
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-2 years
Priority:	High

LLMM1 Mitigation Action: Town of Louisa	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses have clear address signs that are visible during snowstorms
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

LLI1 Mitigation Action: Town of Louisa	
Goal:	Infrastructure and Buildings
Action Item Description:	Bury utilities underground in Town of Louisa
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	Unknown
Funding Method:	Community Development Block Grant, Pre-hazard mitigation funds
Implementation Schedule:	5+ Years
Priority:	Low

LMHM1 Mitigation Action: Town of Mineral	
Goal:	Mitigation Capacity
Action Item Description:	Incorporate hazard mitigation plan into community plans
Hazard (s):	Multiple
Lead Party Responsible:	Department of Community Development - Planning
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	1-2 years
Priority:	High

LMMM1 Mitigation Action: Town of Mineral	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses have clear address signs that are visible during snowstorms
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

LMLI1 Mitigation Action: Town of Mineral	
Goal:	Infrastructure and Buildings
Action Item Description:	Bury utilities underground in Town of Mineral
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	Unknown
Funding Method:	Community Development Block Grant, Pre-hazard mitigation funds
Implementation Schedule:	5+ Years
Priority:	Moderate

NH11 Mitigation Action: Nelson County	
Goal:	Infrastructure and Buildings
Action Item Description:	Install backup generators in shelters and critical facilities.
Hazard (s):	Multiple
Lead Party Responsible:	County Administrator
Estimated Cost:	\$5,000-\$15,000/generator
Funding Method:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant, All Hazards Emergency Operations Planning Grant
Implementation Schedule:	1-5 Years
Priority:	High

NHM1 Mitigation Action: Nelson County	
Goal:	Mitigation Capacity
Action Item Description:	Continue and expand use of the citizen alert system.
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$5,000
Funding Method:	General Revenue
Implementation Schedule:	Ongoing
Priority:	High

NHM2 Mitigation Action: Nelson County	
Goal:	Mitigation Capacity
Action Item Description:	Provide training for building inspectors and code officials on mitigation techniques and hazard-resistant building.
Hazard (s):	Multiple
Lead Party Responsible:	Department of Public Works
Estimated Cost:	\$10,000
Funding Method:	Hazard Mitigation Grant Program, General Revenue
Implementation Schedule:	1-3 years
Priority:	High

NHM3 Mitigation Action: Nelson County	
Goal:	Mitigation Capacity
Action Item Description:	Conduct Community Emergency Response Team (CERT) classes to equip individuals and groups to assist in the event of a disaster
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator
Estimated Cost:	\$10,000
Funding Method:	FEMA Community Emergency Response Teams, FEMA Emergency Management Performance Grant
Implementation Schedule:	Ongoing
Priority:	High

NME1 Mitigation Action: Nelson County	
Goal:	Education and Outreach
Action Item Description:	Conduct FireWise workshops.
Hazard (s):	Wildfire
Lead Party Responsible:	Virginia Department of Forestry, Emergency Services Coordinator
Estimated Cost:	\$2,000
Funding Method:	Virginia FireWise Grant, General Revenue
Implementation Schedule:	2-5 years
Priority:	Moderate

NME2 Mitigation Action: Nelson County	
Goal:	Education and Outreach
Action Item Description:	Provide educational instruction and materials to school age youth and their teachers on proper procedures for responding to natural disasters
Hazard (s):	Multiple
Lead Party Responsible:	Emergency Services Coordinator, Public Schools
Estimated Cost:	\$5,000
Funding Method:	General Revenue
Implementation Schedule:	3-5 Years
Priority:	Moderate

NMI1 Mitigation Action: Nelson County	
Goal:	Infrastructure and Buildings
Action Item Description:	Investigate safety and maintenance of roads in private communities.
Hazard (s):	Multiple
Lead Party Responsible:	Public Works, Emergency Management
Estimated Cost:	Staff Time and Resources
Funding Method:	N/A
Implementation Schedule:	2-5 years
Priority:	Moderate

NMM1 Mitigation Action: Nelson County	
Goal:	Mitigation Capacity
Action Item Description:	Ensure all houses have clear address signs that are visible during snowstorms
Hazard (s):	Winter Storms, Multiple
Lead Party Responsible:	Town Manager
Estimated Cost:	None
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Moderate

NLE1 Mitigation Action: Nelson County	
Goal:	Education and Outreach
Action Item Description:	Ensure that all homeowners and businesses located in areas prone to landslides are aware of the risks and appropriate responses to an event
Hazard (s):	Landslides
Lead Party Responsible:	Planning Department
Estimated Cost:	Staff Time
Funding Method:	N/A
Implementation Schedule:	Ongoing
Priority:	Low

NLI2 Mitigation Action: Nelson County	
Goal:	Infrastructure and Building
Action Item Description:	Maintain and add more fire rings in camping areas for controlled fires.
Hazard (s):	Multiple
Lead Party Responsible:	Albemarle Recreation Department, Private Campground Owners, National Park Service
Estimated Cost:	\$50,000
Funding Method:	General Revenue, Hazard Mitigation Grant Program
Implementation Schedule:	5+ years
Priority:	Low