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**PURSUING A**

**RESILIENT  
VIRGINIA**

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# 1 UNDERSTANDING RESILIENCE

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Communities face increasing threats from extreme weather events and unpredictable climate patterns that exacerbate existing economic, environmental, health, and other social stresses. It is critical that communities identify, address, and prepare for these risks and challenges to survive, thrive, and become more resilient.

**Resilience is the ability to identify risks and challenges and build the capacity to maintain or rapidly regain functionality and vitality in the face of these chronic stressors or severe disturbances.**



To develop resilience solutions, communities need organized processes to incorporate climate data, socio-economic considerations and innovative solutions into their planning efforts. A Resilience Plan is one way to do this.

**Resilience plans provide a roadmap for communities to strengthen physical and societal infrastructure.**

A well-developed and implemented resilience plan will ensure that communities can continue to function and thrive in the face of short- and long-term challenges.

*In the short term, resiliency strategies can provide communities with tools for bouncing back more quickly from extreme weather or other high-impact events.*

*For the long term, resiliency planning provides communities with the ability to adapt and thrive despite changing environmental, social, and economic conditions.*

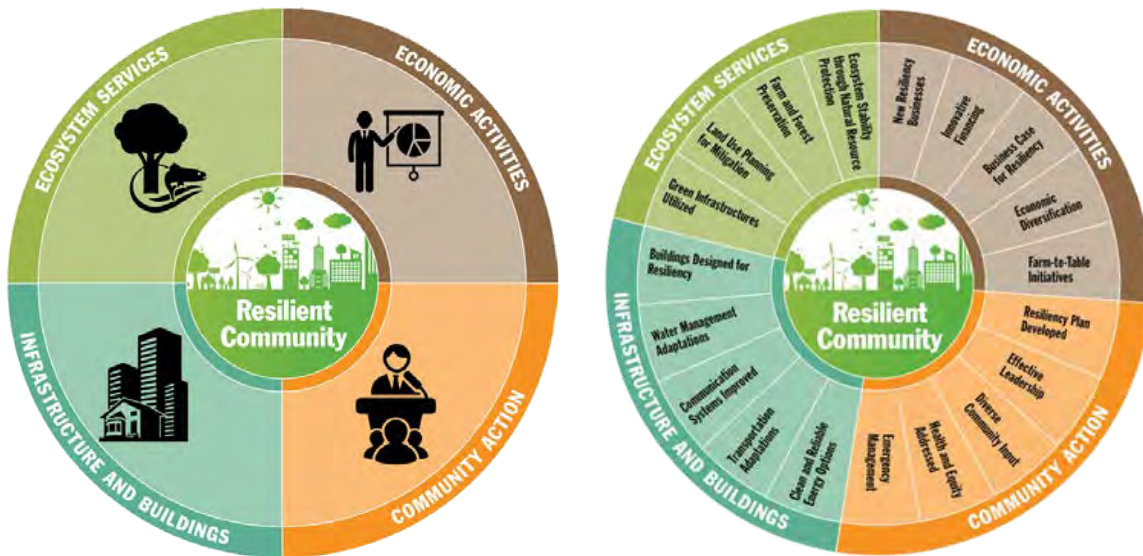


# 2

## ATTRIBUTES OF A RESILIENT COMMUNITY

Because each community is unique, there is no “one size fits all” solution for resilience. Resilience planning involves identifying a community’s individual strengths, and analyzing existing weaknesses in its ability to withstand natural and man-made disasters, public health challenges, and socio-economic stressors.

Resilient Virginia has identified four key resilience components that communities need to analyze for strengths and weaknesses — **Ecosystem Services, Economic Activities, Community Action, and Infrastructure and Buildings.**



Local governments, in consultation with community stakeholders, can identify and prioritize resilience solutions from these resilience components to help them formulate solutions. Solutions will be unique to each community, based on factors such as geography (coastal/urban/rural), socioeconomic factors, and stakeholder priorities.





# A DEEPER LOOK AT THE ATTRIBUTES OF A RESILIENT COMMUNITY



Ecosystems provide benefits and services that are essential to human survival including food, water, clean air, and building materials. Healthy ecosystems can help protect communities from the impacts of extreme events like flooding, heat, drought, and wildfire; as well as provide recreational and employment opportunities.

Communities must incorporate protection of ecosystem services into their land use and other plans in order to increase resilience. Green infrastructure, farm and forest preservation, land use, and natural resource protection are ecosystem service elements that communities should consider in their planning.

The health of a community's economy can be greatly impacted by disasters and other chronic stressors, so a holistic approach to resiliency must incorporate protections for businesses, employers, and employees and the infrastructure that supports them. Communities can weave resiliency goals in their Comprehensive Economic Development Strategies (CEDs); as well as aligning their CEDs with a region's Hazard Mitigation Plan.

Diversifying economic opportunities, bringing in new resiliency businesses, and focusing on farm-to-table programs are additional strategies that communities can use to become economically resilient.





Resiliency planning must incorporate, to the extent possible, the priorities of the entire community with a particular focus on the needs of the most vulnerable segments of the population. Therefore, planners must provide diverse ways for the community to engage in the planning process and engage all interested stakeholders including residents, business owners, community groups, community leaders, educational institutions, etc.

Stakeholders and community leaders must be properly informed about the risks they face, potential remedies, and funding opportunities; and then given the opportunity to provide feedback and ideas for potential solutions.

Design decisions for buildings and communities will significantly impact local and regional resilience. Designers, owners, and operators of residential, institutional, and commercial structures should strive to incorporate passive and active survivability concepts into new and renovated structures.

Community planners and developers should incorporate systems that will ensure continuity of operations in water management, transportation flow, energy service, and communication systems against a variety of risks.





# 3

## VIRGINIA'S VARIED APPROACHES TO RESILIENCE

Across the Commonwealth, stakeholders are working together to create strategies, policies, and programs to better adapt to climate, environmental, social, and economic challenges.





Milan \* New York City \* Quito  
 Melbourne \* Rome \* Thessaloniki  
 Rotterdam \* Athens \* Paris  
 Dakar \* Juarez \* Boston  
 Dallas \* Vejle \* Norfolk, Virginia  
 Medellin \* Bangkok \* Rio de  
 Janeiro \* Barcelona \* Los Angeles  
 Rome \* Chicago \* Da Nang  
 New Orleans \* Kigali \* Huangshi  
 Singapore \* Lisbon \* Mexico City  
 Cali \* Santiago de los Caballeros  
 Belgrade \* Ramallah \* Glasgow  
 Montreal \* Mandalay \* Accra  
 London \* El Paso \* Bangalore  
 Surat \* Jacksonville \* San Juan  
 Durban \* Sydney \* Pittsburgh  
 Amman \* Semarang \* Enugu  
 gre \* San Francisco  
 Santiago, Metropolitan  
 Ashkelon \* Wellington  
 Luis \* Toyama \* Byblos  
 Christchurch \* Tulsa  
 Oakland \* Bristol  
 Berkeley \* Boulder



Learn more

## Hampton Roads

Cities in Hampton Roads have identified infrastructure adaptation, land use planning, and social equity as critical resiliency components. For example, Norfolk’s Resilience Strategy has set three basic goals: 1) Design the Coastal Community of the Future; 2) Create Economic Opportunity by Advancing Efforts to Grow Existing & New Industry Sectors; and 3) Advance Initiatives to Connect Communities, Deconcentrate Poverty, and Strengthen Neighborhoods.

## RESILIENT CRITICAL INFRASTRUCTURE

A ROADMAP FOR NORTHERN VIRGINIA



Learn more

## Northern VA Regional Commission

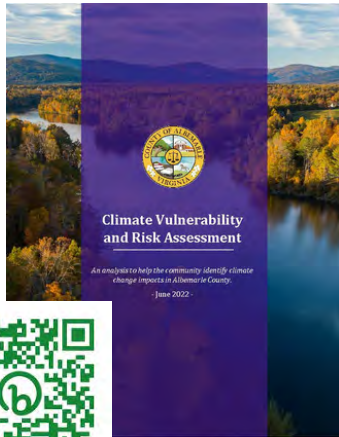
The Northern Virginia Regional Commission has brought together regional cities and counties to create a “Roadmap to Resiliency” that seeks to 1) Assess risks and vulnerabilities from stormwater and floods, sea level rise, and urban heat extremes; 2) Identify critical infrastructure, including buildings, energy systems, and civil infrastructure; and 3) Develop policy directions and project databases of potential mitigation/adaptation solutions.



Learn more

## Cumberland Plateau

In rural communities, resiliency plans need to address systemic economic stressors, such as the viability of agricultural enterprises in the face of environmental, climate, and market risks; health and educational challenges; and broadband connectivity, that are major ongoing challenges.



Learn more

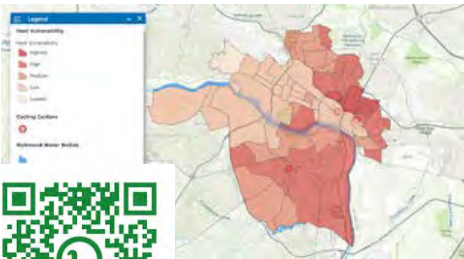
## **Albemarle County**

In June 2022, Albemarle County published their Climate Vulnerability and Risk Assessment report. The report analyzes primary hazards the county will face in the future, who and what will be most vulnerable to the hazards, and what risks will be most likely.

## **City of Richmond**

### *Climate Equity Index*

Differences in social vulnerability across Richmond mean that the city's resilience plan didn't work equally well for all neighborhoods. To enhance their plan, the city worked with partners to develop the Climate Equity Index to document neighborhood vulnerability to climate impacts.



Learn more

### *Environmental Justice Data Project*

The Environmental Justice Data Project is using data and community engagement to shed light on climate justice issues and accelerate resiliency funding opportunities in the City of Richmond.

## **City of Lynchburg**



Learn more at [ResilientVirginia.org](https://ResilientVirginia.org)

In Lynchburg, flood occurrences, water contamination, and extreme temperature have been identified as current hazards which, due to climate change, will likely be exacerbated. Led by Resilient Virginia, the Lynchburg Rising project engaged historically disinvested neighborhoods in the City, which are disproportionately impacted by these hazards, to better understand their risks and to develop community capacity to address them. This project built on existing sustainability and resilience work being conducted in Lynchburg.





## Town of Blacksburg

When Blacksburg’s new Sustainability Manager realized that climate change is more than just sea level rise, she led her inland city toward climate resilience by developing a climate vulnerability assessment.



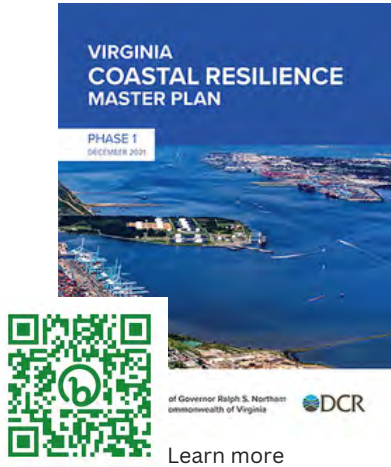
## City of Roanoke

Cities across the Commonwealth are participating in Heat Island Mapping Campaigns to better understand the needs of the community, look at the effect of heat on the built environment, and identify where expanding tree canopy would provide the greatest benefit to social and environmental conditions.



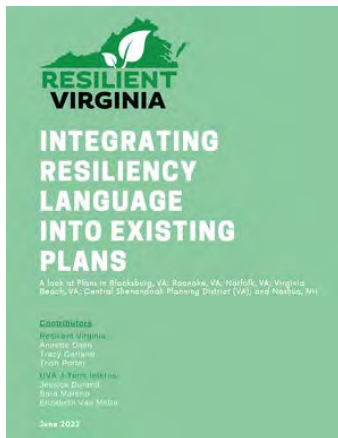
## Fairfax County

Fairfax County is already facing serious and costly challenges due to climate change. These changes are projected to continue, amplifying vulnerabilities for community members, infrastructure, public services, and natural systems. The good news is that Fairfax County is taking action to address both the cause and the effects of climate change. A previous plan, the Community-Wide Energy and Climate Action Plan (CECAP), focused on the cause, aiming to reduce the county’s contributions to the global greenhouse gas emissions that feed into climate change. Resilient Fairfax, focuses on the effects, helping the county adapt and become more resilient to the changing conditions they experience locally.



## Virginia's Coastal Master Resilience Plan

The Virginia Coastal Resilience Master Plan, published in December 2021, is a call to action for Virginia. With almost 6 million residents (70% of the Commonwealth's population) residing in coastal areas, it is important that we plan for climate migration, sea level rise, flooding, and increasing severe weather patterns.



## Integrating Resiliency Language into Existing Plans

Communities across Virginia are integrating resiliency language into existing Comprehensive Plans, Hazard Mitigation Plans, and Master Plans. Resilient Virginia partnered with students from UVA EI in January 2022 to perform a case study on how communities are doing this.

Learn more at [ResilientVirginia.org](https://ResilientVirginia.org)



# 4

## WORKING TOGETHER FOR RESILIENCE

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### The Role of Community Members and Leaders

Developing equitable resilience solutions requires the direct participation of impacted communities in the development and implementation of the solutions and policy decisions that directly impact them. With assistance from third-party facilitators, collaboration amongst community members, community-based organizations, and local governments can accelerate the implementation of resilience solutions while increasing the viability of the solutions.

*Community Members:* Participate – individually or as a group; Start neighborhood groups; Engage with Community Based Organizations.

*Community Based Organizations:* Cultivate community capacity to participate; Make sure community members are informed, consulted, and involved.

*Government Staff and Elected Officials:* Based on community feedback, facilitate changes in policies, programs, and systems to increase equitable resilience solutions and decrease disproportionate harms.

*External Facilitators:* Cultivate the conditions for collaboration between community members, community based organizations, and local government; Assess and document progress toward goals and community solutions.

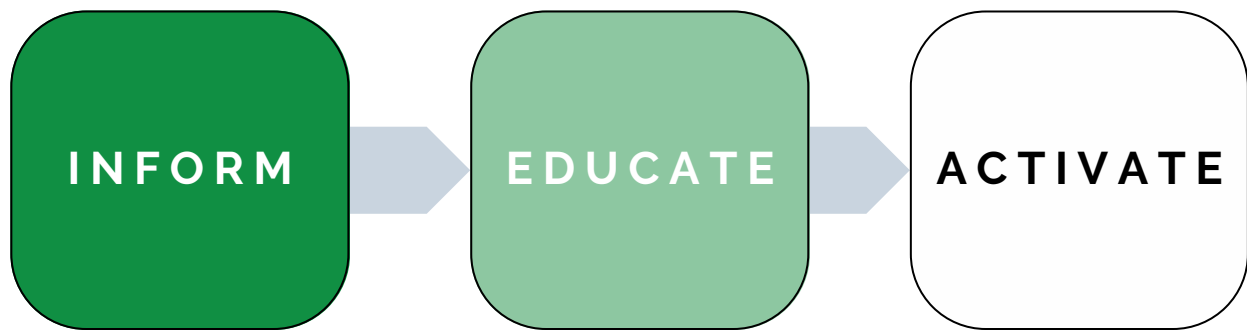
For a deeper dive on Collaborative Governance, check out "From Community Engagement to Ownership" from the Urban Sustainability Directors Network



## Resilient Virginia's Role

Resilient Virginia is a nonprofit organization intent on moving resiliency initiatives forward at both the state and local levels by taking an educational and action-oriented approach. Our organizational goals are:

- To **inform** diverse community representatives around the Commonwealth about natural, climate-related, and man-made challenges;
- To **educate** key groups about models for community resilience planning; and
- To **activate** these communities to engage in resilience plan development.



Resilient Virginia acts as a source of the latest and most relevant information about resilience through a number of initiatives, outlined below.



### *Resource Hub*

Our Resilient Virginia Resource Hub is a library of curated and categorized resources that cover multiple aspects of resilience and are published by reputable sources. Visit the Resource Hub at [ResilientVirginia.org/resource-hub/](https://ResilientVirginia.org/resource-hub/)



### *Newsletters and Articles*

Resilient Virginia's articles, publications, member briefs, and quarterly newsletters are a source of up-to-date information on local, state, national, and international resiliency efforts covering a broad range of topics – from energy to infrastructure to economic development. Sign-up to receive our quarterly newsletter.





### *Topic Experts*

Resilient Virginia staff serve as topic experts on a variety of advisory groups throughout the state, including Virginia Department of Conservation and Recreation's Flood Resilience Outreach Strategy Plan NGO advisory group, Virginia Department of Transportation Environmental Stakeholders Engagement Group, MARISA's Year 8 Advisory Committee, and the Tree Roundtable Virginia Strategy Session. We are able to provide insight into the public's resiliency needs and wants based on our Listening Sessions, surveys, and on-going communication with Virginia communities.



### *Workshops, Trainings, and Conferences*

Through workshops and training, including the Resiliency Academy series, Resilient Virginia provides local governments and community organizations with information on high-priority, high-impact resiliency strategies. Through our biennial conferences, Resilient Virginia highlights case studies, provides peer-to-peer learning opportunities, and identifies new challenges and opportunities, thus accelerating implementation of innovative practical and policy resiliency solutions.



### *Partnering with Higher Education to Build Workforce Capacity*

Resilient Virginia partners with universities and colleges around the state to train the next generation of resiliency leaders and build workforce capacity. We do this through:

- Highlighting resiliency research initiatives;
- Providing student internship opportunities;
- Supervising graduate level group projects;
- Participating in classroom panel discussions; and
- Working one-on-one with students.



### *Resilient Virginia Collaborative Alliance*

The Resilient Virginia Collaborative Alliance (RVCA) will empower regional stakeholders to collaborate, share resources and tools, and significantly bolster the process of resiliency planning in communities located in Central and Southwest Virginia.



### *Community Outreach and Engagement*

Resilient Virginia works directly with communities to

- Identify and address risks and challenges;
- Build community leadership and empower community members to get involved in developing resilience solutions; and
- Gather risk assessment data to provide to government entities.

We do this through:

- Providing a safe and open space for discussion;
- Providing risk assessment data to participants;
- Listening and recording stakeholder issues; and
- Focusing on equitable solutions.

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## ***Our Values***

*Resilient Virginia supports the concept that healthy, equitable, economically sound communities are the building blocks for a strong, resilient statewide economy.*

*Resilient Virginia supports the idea that an informed and aware public is the best foundation through which to build societal resilience.*

*Resilient Virginia recognizes that environmental resources provide the natural capital that is the critical foundation for our communities' successful functioning.*

*Resilient Virginia sees innovation, diversity, and system redundancy as means to greater adaptive capability and risk minimization when facing natural and man-made challenges, whether extreme events or ongoing stressors.*

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***Learn more***

**ResilientVirginia.org**



