

EXECUTIVE SUMMARY

The Central Shenandoah Hazard Mitigation Plan (CSHMP) identifies natural hazards and man-made threats affecting the region and establishes mitigation strategies to reduce their adverse impacts. Developed through a collaborative planning process, this multi-jurisdictional plan brought together stakeholders from across the region to build greater resilience.

The Central Shenandoah Planning District Commission (CSPDC) encompasses 21 jurisdictions in Virginia's historic Shenandoah Valley, covering 3,439 square miles. The region includes:

- **5 Counties:** Augusta, Bath, Highland, Rockbridge, and Rockingham
- **5 Cities:** Buena Vista, Harrisonburg, Lexington, Staunton, and Waynesboro
- **11 Incorporated Towns:** Bridgewater, Broadway, Craigsville, Dayton, Elkton, Glasgow, Goshen, Grottoes, Monterey, Mount Crawford, and Timberville
- **4 Special Districts:** James Madison University, Maury Service Authority, Bath County Service Authority, and Augusta Water

Bounded on the west by the Allegheny Mountains and on the east by the crest of the Blue Ridge Mountains, the Region is known for its scenic beauty and predominantly rural character. The region's mountainous terrain and karst topography present distinct hazard mitigation challenges that necessitate specialized planning and intervention.

PLANNING PROCESS

Originally adopted in 2005, this represents the plan's fourth comprehensive update, reflecting the region's ongoing commitment to proactive hazard mitigation. The plan update spanned nearly two years (summer 2024 through early spring 2026) and was comprised of three-phases:

- **Threat and Hazard Identification and Risk Assessment (THIRA):** Evaluated the region's vulnerability to natural and human-caused hazards and analyzed the potential impacts these hazards could have on the participating jurisdictions.

- **Capabilities Assessment:** Assessed the region's capacity to prepare for and respond to the threats and hazards identified in the THIRA to inform the feasibility of mitigation strategies and to identify opportunities for enhancing these capabilities.
- **Mitigation Strategy Development:** Identified actionable mitigation strategies at both the regional and local level that reduce risk to life and property from the hazards assessed in the THIRA.

This process was heavily informed by an extensive community engagement process that included:

- **Four steering committee meetings** engaging representatives from all 25 participating entities and regional organizations and partners.
- **Enhanced stakeholder engagement** through social media, traditional media, participation in regional coordination efforts, and **individual consultation meetings** with each locality and district.
- **Multiple surveys** including risk rating assessments, public input (458 responses), and National Flood Insurance Program (NFIP) evaluations.

THREAT AND HAZARD IDENTIFICATION AND RISK ASSESSMENT

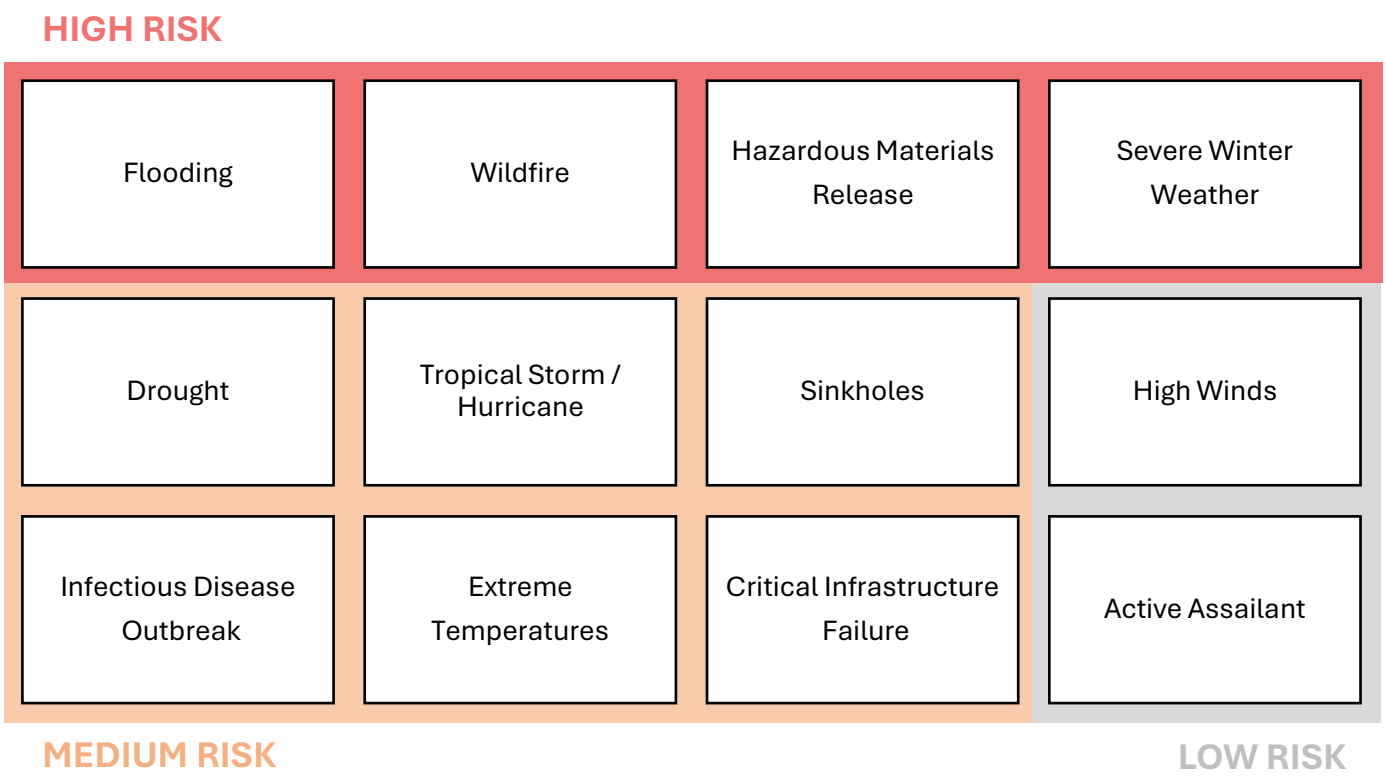
The Threat and Hazard Identification and Risk Assessment (THIRA) is a risk assessment process that helps communities determine the most likely and worst-case impacts of hazards to people, infrastructure, the environment, and the economy. The purpose of the THIRA is to identify hazards that have affected and/or could affect the region; profile hazard events to determine which areas and community assets are most vulnerable to damage; and estimate losses.

The CSPDC followed a five-step process to identify and assess risks:

1. **Hazard Identification:** The steering committee voted on the top 15 threats and hazards, which were consolidated into 12 final profiles.
2. **Hazard Description:** Comprehensive research documented probability, magnitude, and potential impacts of each identified threat and hazard.
3. **Critical Facilities Inventory:** Communities identified 1,719 critical facilities, categorized into eight lifeline categories.
4. **Risk Calculation:** Hazards were analyzed using the formula: Risk = Probability × Impact.
5. **Vulnerability Summary:** Each hazard was ranked as low, medium, or high risk.

The assessment incorporated multiple data sources, including historical event records, spatial risk mapping, loss estimation, and probability assessment based on recurrence intervals. Through this process, the steering committee and participating communities identified and ranked 12 priority hazards based on their probability of occurrence and potential impact to the region. The results are shown in following diagram.

FINAL THREAT AND HAZARD RISK RANKINGS



CAPABILITIES ASSESSMENT

The capabilities assessment evaluated existing plans, policies, programs, and staff capacity across the region:

- **Plans and Policies:** All 21 localities participate in the National Flood Insurance Program (NFIP) and maintain emergency operations plans. Most jurisdictions have comprehensive land use plans, capital improvement plans, and wildfire protection plans. However, participation in programs like the NFIP Community Rating System remains limited (only the Town of Bridgewater participates).
- **Codes and Regulations:** All communities adopt and enforce the Virginia Uniform Statewide Building Code and floodplain management ordinances. Many jurisdictions collect stormwater utility fees to support infrastructure improvements.
- **Staff Capacity:** Cities and counties generally maintain dedicated staff for community development, engineering, public works, and emergency management. Towns rely heavily on county resources, with staff fulfilling multiple roles.
- **Expansion Potential:** While capacity varies significantly by jurisdiction size, all localities face similar challenges including limited resources for proactive hazard mitigation. Regional coordination through the CSPDC offers potential solutions for standardized materials, coordinated training, and shared technical expertise.

MITIGATION GOALS AND ACTIONS

The plan establishes a two-tiered mitigation framework with regional goals supported by local actions:

REGIONAL GOALS

1	**Economic Resilience and Protection:** Bolster the regional economy by reducing hazard impacts on economic sectors and critical business infrastructure.
2	**Housing and Neighborhood Protection:** Protect residential properties and prioritize vulnerable neighborhoods and housing populations.
3	**Environmental Stewardship and Natural Hazard Mitigation:** Restore and enhance natural systems' hazard mitigation functions while protecting environmental resources.
4	**Resilient Public Infrastructure:** Ensure high-quality, resilient infrastructure that maintains essential services before, during, and after hazard events.
5	**Public Health and Safety Enhancement:** Promote public health and safety by reducing hazard-related risks and ensuring effective emergency response.
6	**Collaboration and Innovation:** Collaborate across jurisdictions and sectors to improve resilience through innovative approaches.

LOCAL ACTION ITEMS

Each participating locality and special district developed customized mitigation action tables prioritizing specific projects based on local needs, capacity, timeline, and available funding. All mitigation actions fall into four categories:

- **Local Planning and Regulations:** Examples include zoning ordinances, development review, building codes, and capital improvement programs.
- **Structure and Infrastructure Projects:** Examples include acquisitions, elevations, retrofits, underground utilities, and floodwalls.
- **Natural Systems Protection:** Examples include green infrastructure, stream restoration, land conservation, and forest management.
- **Education and Awareness Programs:** Examples include public outreach, training, real estate disclosure, and emergency preparedness.

These mitigation steps establish a strategic roadmap guiding each jurisdiction's efforts to build resilience against the natural and human-caused hazards that pose the most significant risks to their communities.

PLAN IMPLEMENTATION AND MAINTENANCE

The CSHMP is a dynamic document designed to evolve through ongoing implementation and updates. The following components provide a framework for implementing and maintaining the Plan.

- **Adoption:** Following FEMA approval, all 25 participants will adopt the plan through official resolutions.
- **Local Implementation:** Jurisdictions will integrate mitigation strategies into comprehensive plans, zoning ordinances, capital improvement programs, emergency operations plans, and disaster recovery plans. Implementation capacity varies by jurisdiction size and resources.
- **Regional Implementation:** The CSPDC will implement regional strategies, provide technical assistance, coordinate multi-jurisdictional projects, monitor funding opportunities, and facilitate plan maintenance.
- **Monitoring and Maintenance:** The CSHMP Steering Committee will conduct annual reviews evaluating action implementation status, identifying obstacles, and tracking progress. A comprehensive update will occur every five years, with interim revisions as needed for regulatory changes, disasters, or significant vulnerability shifts.
- **Public Participation:** The adopted plan will be accessible through websites, libraries, and government offices. The CSPDC will facilitate ongoing public input through surveys, open houses, workshops, and feedback mechanisms.

CONCLUSION

This update represents a collaborative commitment to building regional resilience. By proactively identifying risks and implementing mitigation strategies, the region aims to protect lives, property, infrastructure, and economic assets while preserving the natural beauty, agricultural heritage, and historic character that define the Central Shenandoah Valley. Through coordinated regional action and local implementation, the plan establishes a roadmap for creating safer, stronger communities prepared to face future challenges and maintain eligibility for critical federal mitigation assistance.