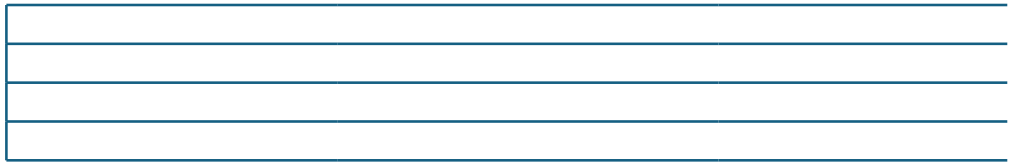
Community	Mitigation Technique	Action #
Buncombe County	Prevention	P-7
Buncombe County	Public Education and Awareness	PEA-2
Buncombe County	Public Education and Awareness	PEA-3
Buncombe County	Public Education and Awareness	PEA-4

Buncombe County	Emergency Services	ES-2
Buncombe County	Emergency Services	ES-3
Buncombe County	Emergency Services	ES-4
Buncombe County	Emergency Services	ES-5

Buncombe County	Emergency Services	ES-6
Buncombe County	Emergency Services	ES-7
Buncombe County	Property Protection	PP-9



Description	Hazard(s) Addresses
Implement a staffed post-disaster code enforcement program to inspect and document structure, bridges/culverts, and any additional development. Increase support for making Substantial Damage Determinations and ensuring compliance with the Buncombe County Flood Damage Prevention Ordinance.	Flooding, Hurricane and Coastal Hazards, Geological (Landslide)
Develop stand-alone, district specific Community Wildfire Protection Plans (CWPPs) to document each district's wildfire project, community characteristics, and infrastructure assets to develop a countywide wildfire mitigation strategy.	Wildfires
Implement a 40-month, countywide risk-reduction campaign to deliver tailored household mitigation guidance that strengthens preparedness and minimizes potential losses.	Flooding, Hurricane and Coastal Hazards, Tornadoes/Thunderstorms, Severe Winter Weather, Wildfires, Geological (Landslide)
Develop and launch a public, parcel-level Residential Wildfire Risk Database and web portal that consolidates hazard layers, structural ignitability, WUI boundaries, fuel conditions, and vulnerability overlays to empower homeowners and stakeholders with tailored mitigation guidance and decision-support tools.	Wildfires

Deploy portable landslide monitoring units integrated with the County's mass notification system and planned siren network to provide real-time detection and automated public warnings that enable timely evacuations and reduce loss of life and property.	Geological (Landslide)
Procure and deploy portable, easily fueled generators and supporting equipment to selected law enforcement, EMS, shelter, and emergency support facilities to ensure uninterrupted life-safety operations and services during extended outages.	All
Install permanent redundant power systems (backup generators, solar PV arrays, and battery storage with transfers and controls) at six critical facilities to ensure continuous emergency operations, communications, sheltering, and life-safety services during extended outages caused by storms, landslides, winter events, and other hazards.	All
Install strategically sited, real-time stream gauges to continuously monitor rainfall, streamflow, and soil moisture; the data will feed NC FIMAN, NWS, and the County EOC to improve the accuracy and speed of flood warnings.	Flooding

Install and integrate 72 modern sirens in locations prioritized based on hazard history, population density, and community input.	All
Install a network of advanced weather stations to deliver real-time local data (wind, rain, temperature, soil moisture, pressure) that integrates with NWS and the County EOC to improve forecasting, early warning, and emergency response.	Flooding, Hurricane and Coastal Hazards, Tornadoes/Thunderstorms
Purchase and install permanent water tanker truck hook ups at critical facilities throughout the County.	Flooding, Hurricane and Coastal Hazards, Geological (Landslide)

Relative Priority	Funding Sources	Responsible Party	Target Completion Date
High	HMGP	Buncombe County Emergency Management	2026
High	HMGP	Buncombe County Emergency Management	1-5 years
High	HMGP	County Emergency Services	2029
High	HMGP	Buncombe County Emergency Management	2027

	High	HMGP	Buncombe County Emergency Management	1-5 years
	High	HMGP	Buncombe County Emergency Management	2028
	High	HMGP	Buncombe County Emergency Management	2028
	High	HMGP	Buncombe County Emergency Management	2027

	High	HMGP	Buncombe County Emergency Management	2028
	High	HMGP	Buncombe County Emergency Management	2029
	High	HMGP	Buncombe County Emergency Management	2027

2025 Action Implementation Status
New action for 2025. Hurricane Helene brought a staggering 13.98 inches of rain, leading to widespread landslides and damage to homes, businesses, and infrastructure throughout the county. The Buncombe County Planning and Development Department, already facing limited resources, has been further strained by the influx of flood permit reviews, field inspections, substantial damage assessments, and appeals. Recovery efforts are ongoing, focusing on compliance with the Buncombe County Flood Damage Prevention Ordinance. This project would support securing resources to be deployed in the field to ensure post-disaster repairs and rebuilding are in compliance with local ordinances and regulations.
New action for 2025. The County faces escalating wildfire risk due to its diverse landscapes, expanding development, and growth of the wildland-urban interface (WUI). The county contains 19 fire districts, but the majority of residents lack access to practical, household-level wildfire risk information. Without consistent, accessible tools, homeowners and communities are unable to adequately identify their level of risk, take cost-effective mitigation measures, or prepare for wildfire emergencies.
New action for 2025. The County faces multiple and overlapping natural hazards including flooding, hurricanes and severe storms, and wildfires that threaten the safety, health, and economic stability of its residents. These hazards are increasing in both frequency and severity due to emerging weather patterns. While the County has made important strides in infrastructure investment and planning, there remains a critical gap in public knowledge of household-level mitigation measures. Without a strong outreach and education effort, residents will continue to face preventable damages, losses, and fatalities.
New action for 2025. The County faces escalating wildfire risk due to its diverse landscapes, expanding development, and growth of the wildland-urban interface (WUI). The county contains 19 fire districts, but the majority of residents lack access to practical, household-level wildfire risk information. Without consistent, accessible tools, homeowners and communities are unable to adequately identify their level of risk, take cost-effective mitigation measures, or prepare for wildfire emergencies.

New action for 2025. The County's distinctive topographical features and geographic characteristics increase its vulnerability to landslides. Historically, the region has experienced numerous storm-induced slope failures. In 2004, Tropical Storm Frances delivered 18 inches of precipitation, resulting in extensive flooding across nearly all valley communities and causing over $13 million in localized damages. In 2005, landslides impacted critical infrastructure, including the Broad River Volunteer Fire Department. More recently, Hurricane Michael in 2018 and Tropical Storm Fred in 2021 contributed to increased flooding, slope destabilization, and prolonged recovery efforts. However, the most severe event to date was Hurricane Helene in 2024, which dropped up to 30 inches of rain over four days, primarily affecting mountainous areas. This event initiated over 2,200 documented landslides throughout the region, with more than 1,100 affecting Buncombe County alone.

New action for 2025. The County's mountainous geography and dependence on overhead power distribution lines make its infrastructure especially vulnerable to damage from high winds, heavy rainfall, snow, ice, and saturated soils. The cumulative effect of these hazards is that Buncombe County experiences both frequent smaller outages and catastrophic long-duration outages. Each type of hazard, whether large-scale hurricane or localized thunderstorm, has the potential to cut power to critical facilities at the very moment when residents depend on them for life safety, shelter, and emergency coordination.

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New action for 2025. The County is highly susceptible to flooding. Existing stream gauges are limited in number and spatial coverage, resulting in delayed flood warnings, reduced situational awareness, and suboptimal emergency response. This gap is especially harmful to socially vulnerable residents, who often have limited access to transportation, communication, and recovery resources.

New action for 2025. The County's existing outdoor warning sirens are relics from the former Civil Defense system. These units are heavily outdated, non-functional, and provide no reliable coverage. Socially vulnerable populations, including low-income households, elderly residents, people with disabilities, and households without vehicles or smartphones face the greatest risks when alert systems fail. FEMA's Community Resilience Challenges Index (CRCI) identifies these populations as disproportionately impacted during disasters, underscoring the urgency of addressing communication gaps.

New action for 2025. The County's weather monitoring capabilities are insufficient. The current network of stations is sparse, fails to cover remote and mountainous terrain, and is not fully integrated with modern data-sharing platforms. These limitations delay hazard detection, hinder forecasting accuracy, and restrict emergency managers' ability to provide timely, actionable warnings to residents.

New action for 2025. Water supply and sanitation were among the most pressing issues following Helene. Asheville's three-plant water system was designed with built-in redundancy, but Helene destroyed that safety net. The North Fork plant normally supplies about 80% of the county's drinking water, the William DeBruhl plant provides approximately 15%, and the Mills River plant contributes about 5%. When the hurricane hit, floodwater scoured and destroyed the transmission mains from both North Fork and DeBruhl, while the Mills River facility was physically isolated by washed-out roads. For the first time in modern history, all three plants were simultaneously compromised, creating a near-total system collapse. This loss of redundancy eliminated the utility's ability to shift production between sources, leaving communities with no fallback.

HMGP Project
Post-Disaster Code Enforcement (HMGP 5%)
Development of Community Wildfire Protection Plans for Buncombe County Fire Districts
Buncombe County Risk Reduction Campaign
Buncombe County Residential Wildfire Risk Database

Buncombe County Landslide Monitoring Project
Buncombe County Portable Generator Project for Critical Facilities
Buncombe County Redundant Power Project for Critical Facilities
Buncombe County 22 Stream Gauges Project

Buncombe County Warning Sirens Project
Buncombe County Weather Stations Project
Buncombe County Water Resilience Project for Critical Facilities