

Foothills Regional Commission

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MCDOWELL COUNTY CONNECTIVITY REPORT

2025





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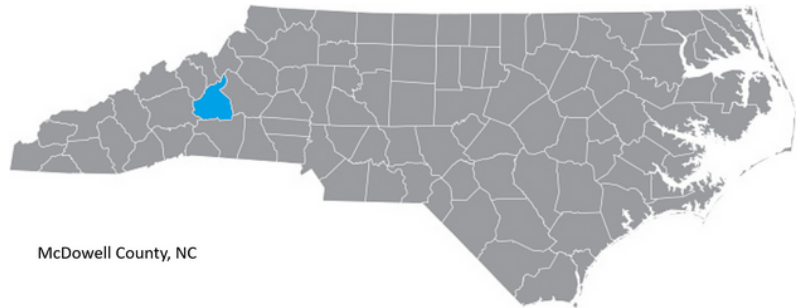
INTRODUCTION

McDowell County, located in Western North Carolina in the Appalachian Foothills, is home to approximately 45,000 people. Like many other rural communities, it has undergone a significant economic transition. In the 20th century, McDowell County thrived as a booming textile manufacturing hub, employing thousands of workers, much like its neighbor, Rutherford County.

Today, McDowell County is classified as a Tier 1 economically distressed county, ranking among the 40 most economically challenged counties in North Carolina. The county has a poverty rate of 14% and a child poverty rate of 22%.

As McDowell County navigates this period of economic transition, it is crucial to prioritize digital literacy, workforce skills, and access to devices to ensure that no one is left behind in the evolving economy.

Device access is another significant challenge in McDowell County, with approximately 16% of households lacking access to a computer device. Additionally, broadband affordability remains a major barrier. According to the NC Broadband Survey, most respondents reported paying over \$125 per month for internet service—an extraordinarily high cost for a county already classified as economically distressed.



McDowell County, NC

As a result, many households rely solely on cellular devices, depend on public facilities for internet access, or go without connectivity altogether.

This digital divide has placed McDowell County at a disadvantage compared to the rest of North Carolina, particularly in digital inclusion, digital literacy, broadband accessibility and affordability. Addressing these challenges is essential to ensuring that residents have the tools and opportunities needed to participate fully in today's digital economy.



OVERVIEW OF HELENE

On September 27, 2024, Hurricane Helene struck McDowell County and Western North Carolina, bringing far more devastation than anticipated. While residents expected strong winds and heavy rainfall, they were unprepared for the record-breaking flooding that followed.

The storm caused widespread damage, particularly in the town of Old Fort, where homes, infrastructure, farms, and businesses suffered severe losses. The full extent of Hurricane Helene's impact on McDowell County remains unclear, as recovery efforts continue. The long-term effects on the community, economy, and infrastructure are still being assessed, highlighting the urgent need for resilient rebuilding strategies and disaster preparedness initiatives.

The full impact of Hurricane Helene on McDowell County is still being assessed, but recovery efforts are well underway. Local leaders, organizations, and residents are working diligently to rebuild infrastructure, support businesses, and restore the community.

While the storm presented significant challenges, the county is actively implementing resilient rebuilding strategies and enhancing disaster preparedness to ensure a stronger, more prepared future.

However, continued support and investment in community resilience efforts are essential to further strengthen McDowell County's ability to withstand and recover from future disasters.

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GEOGRAPHIES/STREETS/LOCATIONS IMPACTED

The areas most disproportionately impacted by Hurricane Helene in were primarily in and around Old Fort. A small community bordering Buncombe County, Old Fort is home to approximately 800 residents and sits directly on the Catawba River, which led to severe flooding and extensive damage. Nearly 100 homes were destroyed, and the town's wastewater treatment plant was rendered inoperable due to the storm.

In addition to physical damage, broadband and cellular connectivity in Old Fort has been significantly disrupted, and access remains a challenge. However, as infrastructure is rebuilt, there is an opportunity to incorporate enhanced resiliency measures into broadband and telecommunications networks. Strengthening these systems is crucial to ensuring the community is not cut off from service in future emergencies.

The Town of Marion, located just east of Old Fort and home to approximately 7,500 residents, was also severely impacted by Hurricane Helene. The storm forced the temporary shutdown of Baxter Healthcare, one of McDowell County's largest employers, leading to mass layoffs. As a result, unemployment in McDowell County rose above 5% in October 2024, adding further economic strain.

Many bridges were also destroyed, further isolating residents and cutting off access to broadband and cellular services in an area that already struggled with connectivity. For many, the loss of critical infrastructure not only disrupted daily life but also delayed emergency response efforts and communication during recovery.

Beyond Old Fort and Marion, the rest of McDowell County also suffered widespread infrastructure damage. Utility poles were destroyed, and power and broadband lines were downed across the region, causing prolonged outages. These disruptions led to significant delays in power restoration and broadband access.

Even months after the storm, some areas still lack broadband service, with no clear timeline for full restoration. This underscores the urgent need for stronger, more resilient infrastructure to prevent prolonged disconnections in future disasters.

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STRATEGIES TO BUILD RESILIENCE

McDowell County is committed to strengthening its infrastructure and digital resilience as part of ongoing rebuilding efforts following Hurricane Helene. These efforts focus on infrastructure and digital skills.

The storm exposed major vulnerabilities, highlighting the urgent need for improvements. As the county rebuilds utility lines, sewer systems, and water infrastructure, integrating broadband access and resiliency is essential. Repairs to sewer and water systems present a unique opportunity to lay fiber alongside these utilities, expanding broadband reach while modernizing infrastructure. Additionally, embedding advanced monitoring technology in water and sewer lines will help detect leaks, breaks, and system failures, creating a more resilient network.

While utility-based fiber expansion is a priority, overhead broadband infrastructure remains essential, particularly in Western North Carolina's rugged terrain. However, the storm underscored a major issue: most homes and businesses in McDowell County rely on a single internet provider. When this provider experiences extended outages, sometimes lasting weeks, residents and businesses are left without internet access, forcing them to consider relocation, costly alternatives, or going without service.

Addressing the lack of provider diversity and broadband redundancy is critical to

ensuring long-term connectivity and economic stability.

This reinforces the importance of broadband competition, ensuring redundancy, better service, and competitive pricing. Greater competition can reduce outages and build a more resilient digital infrastructure.

Beyond infrastructure, digital skills development is another critical investment area. Following Hurricane Helene, the McDowell County library system stepped up, functioning as digital navigators assisting thousands of residents. Library staff helped citizens apply for Individual Assistance, ensuring access to recovery resources. In support, FRC provided tablets, expanding digital access.

While invaluable, these efforts are not a sustainable long-term solution. A dedicated digital navigator program is needed to help residents develop technology skills and navigate online services. Investing in staffing and digital literacy programs is crucial as McDowell County rebuilds. However, as a Tier 1 economically distressed county, securing local funding remains a challenge.

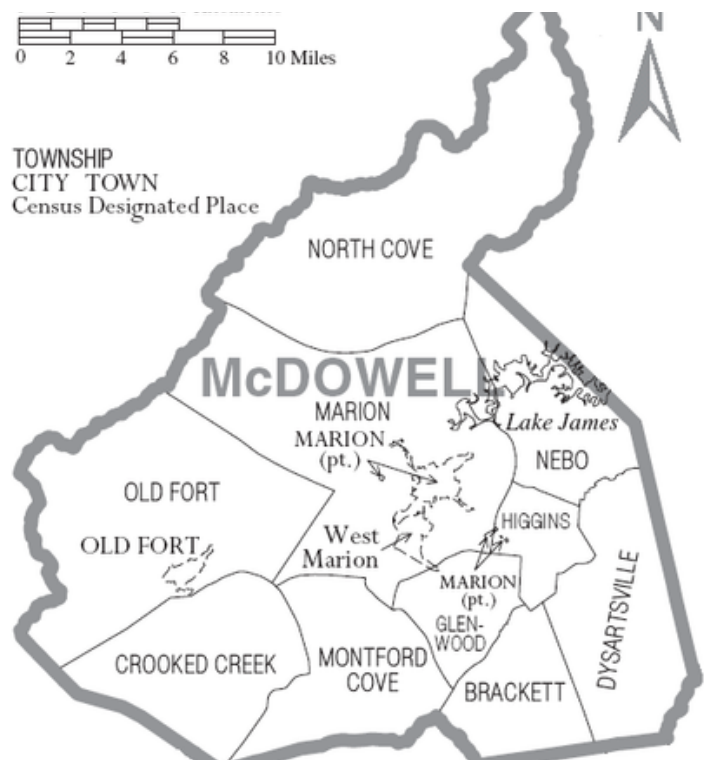
The greatest need is external funding to expand digital training programs within local governments, educational institutions, and nonprofits. By increasing digital literacy, residents will be better equipped to thrive in a digital world and support the county's recovery.

STRATEGIES TO BUILD RESILIENCE CONT.

The most important long-term strategy is securing additional funding to expand local capacity for developing and coordinating digital literacy programs across institutions. Due to limited funding and programming, McDowell County is still determining the most effective strategies to engage residents, making some experimentation necessary to identify what works best for the community.

Another major gap is device access. Given McDowell County's economic challenges, obtaining affordable devices can be difficult, particularly for seniors and low-income residents. There is a significant need for an organization dedicated to providing affordable devices within the community. This effort should be led by an independently operated nonprofit, as the county lacks the capacity to manage an affordable device program directly.

The most effective funding approach would be to provide seed money to establish this nonprofit, ensuring it can effectively serve community needs. Alternatively, funding could support expanding services through a partnership with Through the Trees in Brevard.



HELENE BARRIERS TO DIGITAL OPPORTUNITY AND INFRASTRUCTURE

Hurricane Helene exposed and worsened digital equity challenges in McDowell County. Widespread power and internet outages forced residents to rely on overloaded cellphone towers, which struggled to support the surge in users without broadband. Connect McDowell, a local nonprofit that advocates for broadband in McDowell County, has since unified the community around expanding broadband resources and network redundancy to prevent future disruptions.

The storm also deepened the digital device gap. Many residents lost devices to flooding and cannot afford replacements, increasing the demand for affordable device programs at a time when resources remain scarce.

McDowell County's digital literacy strategy is primarily education-based, with support available through libraries and McDowell County Schools focusing on student education.

Additionally, Foothills Regional Commission, in partnership with Land of Sky, was recommended for an NTIA Digital Equity Competitive Grant to fund a digital literacy instructor for the region's five senior centers. However, uncertainty around the federal program raises concerns about whether this funding will continue. If the program is discontinued, Foothills may seek alternative funding to sustain this essential service and expand digital literacy efforts to reach more residents.



This grant alone would not address digital literacy needs across all populations or solve the ongoing device access gap, highlighting the need for broader investments and solutions to ensure digital equity for all McDowell County residents.

Hurricane Helene devastated McDowell County's infrastructure, destroying wastewater treatment plants, sewer systems, roads, and bridges, while also toppling electrical and broadband poles and cutting service lines. The county aims to employ a dig-once strategy in reconstruction, maximizing efficiency and cost savings while fostering collaboration with towns, Foothills Regional Commission, and local nonprofits.

Rebuilding will take years and require significant funding and cooperation for full recovery. Hurricane Helene is the most expensive disaster in North Carolina's history and is projected to be the costliest in U.S. history.



ACKNOWLEDGEMENTS

In addition to those involved in the creation of this plan, the following entities have been identified as partners essential to advancing the established goals. This is not an exhaustive list of partners, but an initial cohort of key players.

- Connect Humanity
- Reid Consulting Group
- Breaking Point Solutions



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