

Polk County, NC: Supporting Community Recovery Through Effective Communication

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Introduction

Hurricane Helene made landfall in North Carolina on September 27th, 2024, causing widespread flooding, landslides, and infrastructure damage across the state. Western North Carolina, including Polk County, a small, rural area on the South Carolina border, faced devastating impacts, as seen in Figure 1. With one confirmed death, loss of power and cell service, and entire communities cut off, the storm exposed the region's vulnerability. This case study explores the impacts of Hurricane Helene in Polk County and highlights how clear, timely communication from local officials supported emergency response and helped connect residents with critical resources throughout the recovery process.

Alignment with Rural Public Health Strategies

Polk County's communication strategy during and after Hurricane Helene aligned closely with evidence-based public health approaches to rural emergency preparedness. To address immediate disaster impacts, the county used a multi-platform communication system, with Everbridge Emergency Alerts playing a key role. This system enabled rapid updates, helping connect residents with critical resources as quickly as possible.

This strategy reflects principles from the Social and Behavior Change Communication for Emergency Preparedness Implementation Kit (I-Kit), which emphasizes coordinated, clear, and credible messaging to reduce confusion and panic in emergencies.

Polk County also followed guidance from the CDC's Crisis and Emergency Risk Communication (CERC) framework, delivering targeted, timely, and trusted messages. By providing straightforward and actionable updates, county officials helped reduce uncertainty and encouraged safe, informed decision-making during a highly stressful time.

Effects

In the immediate aftermath of Hurricane Helene, Polk County faced widespread devastation. Power was out countywide, cell service was extremely limited, and many roads were impassable, delaying emergency response. Air rescues were required to evacuate people stranded in remote, inaccessible areas. Landslides were an ongoing threat; one caused a second cell outage after service was briefly restored. A landslide also tragically killed one resident when it struck a home.

Entire communities were cut off, including the Pearson Falls area and Green River Cove, where nearly 40 homes were stranded and only accessible by foot, as seen in Figure 2.

While the county's public water infrastructure stayed intact, flooding and power outages severely impacted residents who relied on private wells for drinking water. On October 3, the county, supported by the National Guard, conducted aerial assessments, confirming that areas near rivers, creeks, and dams suffered the worst damage.

Government aid began arriving on October 2, nearly a week after the flooding began. Long-term impacts included damaged roads, storm debris, and public health issues such as contaminated wells and illness.

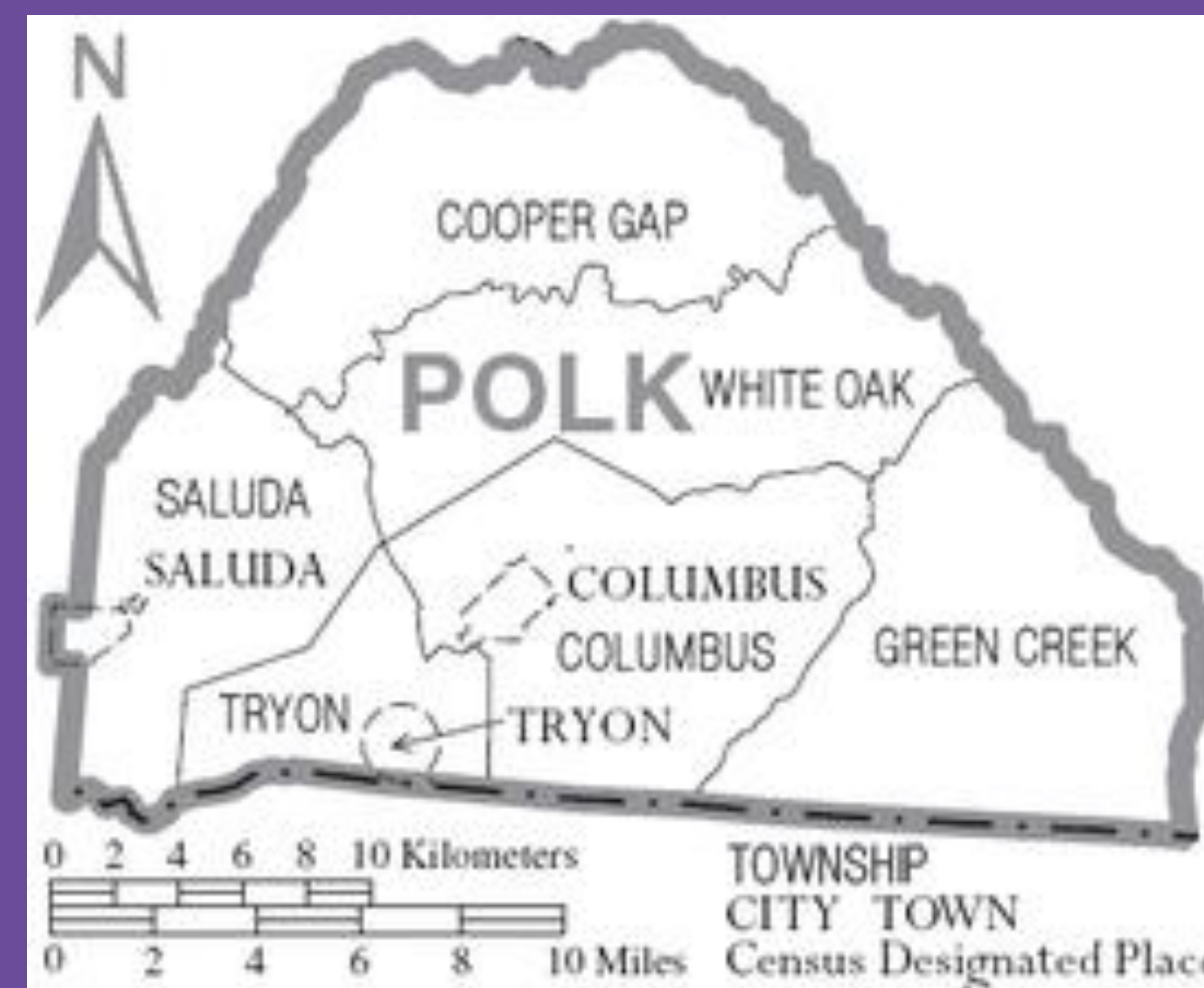
Emergency Management Structure

Polk County's emergency management is coordinated through the Emergency Management and Fire Marshal's Office, which oversees fire administration, inspections, investigations, and disaster response operations. Led by Emergency Management Director and Fire Marshal Bobby Arledge, with support from Assistant Fire Marshal Andrew Kegley, the office provides centralized leadership during emergencies and supports organizational coordination.



Figure 1. The North Pacolet River overflowed near Harmon Field during Hurricane Helene (Tryon Daily Bulletin, 2024).

Polk County's use of multi-platform communication reflected key public health principles and helped reduce harm during hurricane Helene.



Polk County Map¹



Link to full case study

Response and Recovery Efforts

Early Communication

Starting on September 25th, days before Hurricane Helene made landfall, Polk County officials began using Facebook to warn residents about expected flooding, wind, and tornado threats. The Polk County Local Government and Emergency Management/Fire Marshal pages shared frequent updates before, during, and after the storm. These platforms provided real-time guidance and became essential tools for keeping residents informed while Everbridge Alerts and the county website were rolled out for broader coordination.

Everbridge Alerts

The Everbridge Emergency Alert system allowed county officials to send real-time emergency messages via text, phone call, and email. With automatic enrollment for anyone in the 911 database, the system reached even those without internet access. Updates included severe weather alerts, flooding, road closures, and power outage notices, keeping residents informed as conditions evolved.

County Website as a Recovery Hub

Once internet and power were restored, Polk County's website became the primary hub for recovery information. A clearly marked "Helene Information & Updates" button on the homepage linked to critical tools and services, including forms to report damage to private roads and bridges, debris removal requests, FEMA disaster assistance applications, well disinfection kit requests, D-SNAP food benefit information, and road closure updates. These digital tools helped connect residents to vital aid and played a key role in supporting long-term recovery efforts.

On-the-Ground Support

By September 29th, a shelter was opened at Polk County High School, and supply distribution sites were active at town halls and schools across the county. A temporary health clinic run by Blue Ridge Health opened by October 3rd, and laundry services were made available at the high school. The Disaster Recovery Center (DRC) opened in Mill Spring on November 1st, providing in-person support for federal disaster aid applications, FEMA services, and low-interest SBA disaster loans for renters, homeowners, and businesses.

Community-Led Response

Volunteers and community members were vital to response efforts. Local kayakers navigated flooded areas to deliver food and conduct wellness checks. Restaurant owners donated meals, and neighbors distributed printed flyers with critical updates during cell service outages. This community-led action helped fill urgent gaps in access and demonstrated the power of local resilience during disaster recovery.

Conclusion

Polk County's response to Hurricane Helene shows how clear, timely communication can reduce harm, build trust, and connect residents to critical support. By using multi-platform alerts, the county website, and consistent messaging, officials helped make emergency and recovery resources more accessible. Aligned with public health frameworks like the I-Kit and CERC, this approach offers a valuable model for other rural communities preparing for future disasters. Communication wasn't just a part of the response; it was the thread that tied everything together.



Figure 2. Green River Cove Road was destroyed by historic flooding along the Green River near Saluda during Hurricane Helene (Willett, The News & Observer, 2024).