

After Action Report Outline for Hurricane Helene in Western NC

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Overview of the After-Action Report

This template is designed for affected counties to document region-specific experiences and responses to Hurricane Helene. Its purpose is to facilitate learning and continuous improvement by reviewing what went well, what didn't, and why, enabling necessary adjustments for future improvements in emergency preparedness systems.

General information about the incident, helpful examples, and thought provoking exercises are included in this template. Sections written in (RED TEXT) are provided for participants to input region-specific experiences. Please complete these sections as applicable to your county.

Executive Summary

Event Description

Hurricane Helene landed as a Category 4 storm in Florida on September 26, 2024, with 140 mph winds, causing catastrophic damage as it moved inland through Georgia, South Carolina, and North Carolina. In North Carolina, the storm brought record-breaking rainfall exceeding 30 inches in some areas, leading to severe flooding, landslides, and infrastructure destruction, particularly in mountainous regions. Over 100,000 homes were damaged, essential services were disrupted, and over 1,000 roads and bridges were destroyed, including major highways like I-40. Nearly 100 fatalities occurred in the state, with additional casualties and widespread displacement. Emergency responders faced challenges with blocked routes and communication failures, while the lack of flood insurance and rising construction costs complicated recovery efforts. Governor Roy Cooper declared a state of emergency, and federal aid was requested for 39 counties. Long-term recovery will require significant resources, resilience measures, and community rebuilding to address economic losses, public health impacts, and critical infrastructure damage.

Goals and Objectives

This section outlines the strategic goals and operational objectives guiding the disaster response and emergency management efforts following Hurricane Helene. The mission objectives were created using SMARTIE objectives (Strategic, Measurable, Ambitious, Realistic, Inclusive, and Equitable), ensuring a focused, clear, and adaptable approach to managing the crisis. The primary response objectives included protecting lives and property, ensuring public safety and security, coordinating disaster response and recovery efforts, restoring critical infrastructure and utilities, and coordinating the dissemination of accurate information to the public. Each objective is supported by example activities to provide the community with actionable steps during a life-altering emergency such as Hurricane Helene. Operational goals are evacuating the affected populations, establishing emergency shelters, restoring power and communications, conducting search and rescue operations, and providing essential services such as food, water, and medical care. These goals are accompanied by example activities that offer practical guidance to help individuals navigate the stressful environment of a major disaster.

Response Timeline

The response timeline is a critical component in documenting the effectiveness of emergency operations during and after Hurricane Helene. This section outlines the sequence of key events, including evacuation and rescue operations, the provision of health and medical services, and public information and communication efforts. The timeline will highlight both the successes of the emergency response and areas where improvements can be made for future disasters.

Response and Recovery Operations

Response and recovery operations are crucial in reflecting the reaction of the affected responders and community. Understanding the inputs and outputs of emergency response can identify all aspects relevant to emergency response, key successes, and opportunities for improvement. The section will specify the response in recovery efforts regarding:

- Evacuation and Rescue Operations
- Health and medical services
- Public information and communication

This section will provide the space for open-ended reflection on the operations involved in your organization's response to Hurricane Helene. This section's main objective is the management of response and recovery efforts. There are opportunities to describe improvements for future responses in later sections.

Coordination with Partner Agencies

This section describes the coordination with partner agencies that took place during Hurricane Helene. This involves federal, state, and local entities like FEMA, NCEM, and the National Guard. The Foodbank of Central and Eastern Carolina delivers meals and emergency kits, while the Disaster Distress Helpline provides emotional support. Applicants for disaster assistance could use DisasterAssistance.gov, the FEMA mobile app, or a hotline, and shelters could be accessed through FEMA. Issues arose with FEMA's coordination, including misconceptions about available assistance and appeals processes. NGOs like the Red Cross, Appalachia Service Project, and Convoy of Hope, alongside volunteer groups, provided shelter, repairs, and supplies. Infrastructure damage and power outages partially hindered effective communication and resource distribution. There is a table in this section with a list of these organizations to apply to and learn more about.

Key Successes

The key successes section is designed to determine what went well during the response to Hurricane Helene. Determining key successes is complicated due to ongoing issues and damage. It has been determined that the best way to measure success is by using the S.W.O.C. method, which lists strengths, weaknesses, opportunities, and challenges. The S.W.O.C components will be specifically applied to response efforts after/during Hurricane Helene. These components can be discussed in various ways such as focus groups, interviews with locals or key stakeholders, or surveys (online or mailed). There have been links attached within the document that give tips and advice on the construction of focus groups as well as tips on conducting interviews. Some examples of S.W.O.C components include:

- Strength: Timely response
- Weakness: Disorganized shelter management
- Opportunity: Volunteer efforts
- Challenges: Lack of cell service

There will be a template in this section which individuals can fill out to determine key success factors, as well as opinions on weaknesses which can help each community heal and grow accordingly to ensure the proper resources are prepared if an emergency were to ever occur again

Areas for Improvement

The "Areas for Improvement" portion of the after-action review for Hurricane Helene highlights several key areas of improvement to strengthen future disaster responses. The process begins with the team establishing rules and expectations to foster respectful and productive collaboration. Using a Think-Pair-Share exercise, participants identify and consolidate improvement areas based on prior discussions and a SWOC analysis, focusing on logistical challenges, communication issues, coordination, training, and infrastructure resilience. These challenges are then reframed into actionable "How Might We" (HMW) statements, encouraging innovative problem-solving. Ideas generated through this approach are prioritized using an Impact/Effort Matrix, with emphasis on high-impact, low-effort solutions (via a template such as this one),

while high-effort solutions are considered if resources and commitment allow. Finally, recommendations are documented in a structured table that outlines key concepts, specific areas for improvement, actionable strategies, and responsible organizations, ensuring a clear and actionable path to enhance emergency response efforts.

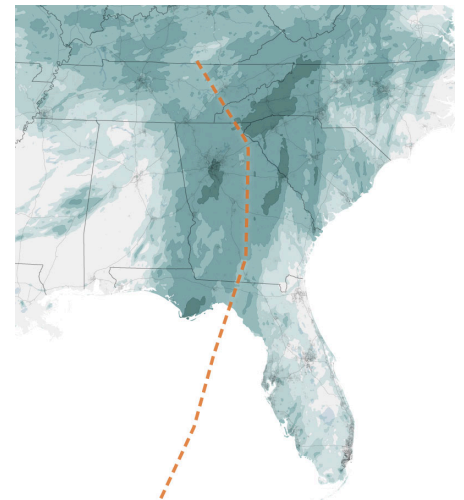
Lessons Learned

The lessons learned section is a critical component for team members to analyze what went wrong and what went well. Through this, team members can identify and discuss key takeaways to use in future disaster responses and action plans. Conducting activities with groups, such as a preparedness cycle activity, are helpful to identify strengths to continue replicating in the future. Activities and discussions are crucial for everyone to determine how the disaster was handled, how effective responses were, what was successful, and what needs improvement. The lessons learned section provides the team with an opportunity to openly discuss after-action responses and how they can better respond for the next event.

Event Description

Overall Description of Hurricane Helene

- **Formation**
 - Started on September 22 as a low-pressure system.
 - On September 24, 2024, Hurricane Helene was announced and was formed in the Western Caribbean Sea.
- **Landfall**
 - Helen made landfall near Perry, Florida, as a Category 4 hurricane with sustained winds of 140 mph. The hurricane landed at approximately 11:10 PM on Thursday, September 26th.
 - Midnight on Thursday, an hour after Helene's landfall in Florida, [Asheville Airport in North Carolina](#) had already seen more than 4 inches of rain.
- **Path**
 - [The hurricane moved](#) inland as a tropical storm across Georgia, South Carolina, and North Carolina.
 - Hurricane Helene stopped over Tennessee on September 27th after degenerating into a post-tropical cyclone.
- **Damage**
 - Helene caused widespread damage, including
 - **Fatalities:** More than 230 people died
 - **Property damage:** Property and infrastructure damage is estimated to be as high as \$200 billion. There is 53 billion in damages and recovery needs in North Carolina.
 - **Power outages:** More than 2 million Georgia and South Carolina homes lost power.
 - **Flooding:** Widespread flooding occurred in the southern Appalachians, with rivers surpassing their highest-ever crests. Our total rainfall in NC is over 218 inches among 12 counties' weather stations.
 - **Infrastructure damage:** The NOAA National Center for Environmental Information in Asheville, NC, shut down after losing internet and water. More than 160 water and sewer systems were affected. Over 6,000 miles of roads, bridges, and culverts were damaged.



County-Specific Description

Resources and Starting Points

- For more information on Hurricane Helene in your specific county, click this [LINK](#).
- NOTE: It may be helpful to complete this section after filling out other sections, as the details documented there may help jog your memory. Alternatively, you could start with a few key points now and continue adding to this section as you come across new details.

Incident Description: (YOUR COUNTY HERE), NC

- Initial Impact and Scope

- What areas within the county were most affected by the hurricane?
 - (ANSWER HERE)
- What were the initial observations regarding damage (e.g., residential areas, commercial properties, infrastructure)?
 - (ANSWER HERE)
- How severe was the damage in terms of structural integrity (e.g., total destruction, partial damage)?
 - (ANSWER HERE)

- Emergency Response

- How quickly were emergency services able to respond after the hurricane?
 - (ANSWER HERE)
- What challenges did first responders face during the immediate aftermath?
 - (ANSWER HERE)
- What resources were immediately available versus what resources were needed but delayed?
 - (ANSWER HERE)

- Public Safety and Health

- Were there any casualties or injuries reported? If so, what numbers and types?
 - (ANSWER HERE)
- What were the primary health and safety concerns for residents post-hurricane?
 - (ANSWER HERE)
- How did the hurricane impact hospitals, clinics, and public health facilities?
 - (ANSWER HERE)

- Infrastructure and Utilities

- How was transportation infrastructure (e.g., roads, bridges, railways) affected?
 - (ANSWER HERE)
- What was the status of utility services (e.g., electricity, water, sewage) in the immediate aftermath?
 - (ANSWER HERE)
- What measures were taken to restore essential services, and how long did restoration take?
 - (ANSWER HERE)

- Communication and Coordination

- What methods of communication were most effective during the hurricane (e.g., radio, emergency alerts)?
 - (ANSWER HERE)
- Were there any issues with coordination between county departments, state agencies, or neighboring counties?
 - (ANSWER HERE)
- How well-informed were residents during and after the hurricane?
 - (ANSWER HERE)

- Evacuation and Sheltering

- Were evacuation orders given in a timely manner, and how effective were they?
 - (ANSWER HERE)
- How many residents utilized public shelters, and what were those shelters' conditions and capacity?
 - (ANSWER HERE)

- What were the main issues in shelter management (e.g., overcrowding, supply shortages)?
 - (ANSWER HERE)
- **Economic and Community Impact**
 - What was the estimated economic loss to businesses, public spaces, and private property?
 - (ANSWER HERE)
 - How were schools, community centers, and other public facilities impacted?
 - (ANSWER HERE)
 - What specific community groups were disproportionately affected?
 - (ANSWER HERE)
- **Lessons Learned and Improvement Areas**
 - What went well in the county's response to the hurricane?
 - (ANSWER HERE)
 - What were the significant areas for improvement?
 - (ANSWER HERE)
 - What recommendations can be made for future hurricane preparedness and response?
 - (ANSWER HERE)
- **Key Challenges:**
 - What geographical challenges were faced (mountainous terrain leading to landslides)?
 - (ANSWER HERE)
 - Was there severe flooding (particularly in river valleys), and if so, where?
 - (ANSWER HERE)
 - What was the scope, if any, of power outages affecting communication and infrastructure?
 - (ANSWER HERE)
 - What kind of evacuation challenges, if any, were faced?
 - (ANSWER HERE)
- **Critical Infrastructure Damage:**
 - What roads, bridges, or other transportation infrastructure, if any, were damaged?
 - (ANSWER HERE)
 - What damages affected healthcare systems and facilities, if any?
 - (ANSWER HERE)
 - Was there damage to school system infrastructure?
 - (ANSWER HERE)

Objectives and Goals

Overview of Mission Objectives

- A **mission objective** is a statement that describes the detailed goals of operations. An effective objective uses a SMARTIE acronym, as listed below:
 - **STRATEGIC:** Reflects an important dimension of what your organization seeks to accomplish (programmatic or capacity-building priorities).
 - **MEASURABLE:** Includes standards by which reasonable people can agree on whether the goal has been met (by numbers or defined qualities).
 - **AMBITIOUS:** Challenging enough that achievement would mean significant progress—a “stretch” for the organization.
 - **REALISTIC:** Not so challenging as to indicate a lack of thought about resources, capacity, or execution; possible to track and worth the time and energy to do so.
 - **TIME-BOUND:** Includes a clear deadline.
 - **INCLUSIVE:** Brings traditionally marginalized people—particularly those most impacted—into processes, activities, and decision/policy-making in a way that shares power.

- **EQUITABLE:** Seeks to address systemic injustice, inequity, or oppression.
- For more information on developing mission objectives, click this [LINK](#).
- To see helpful examples of mission objectives, click this [LINK](#).

County-Specific Mission Objectives

- Please describe the mission objectives that were developed by your specific county during the Hurricane Helene response efforts. If other objectives were created that don't follow the mission objective guidelines, please describe them here as well.
 - (ANSWER HERE)
- If your county has not yet developed mission objectives, you are encouraged to create some to guide recovery efforts moving forward. Please describe them below.
 - (ANSWER HERE)

Overview of Response Objectives

- **Response objectives** outline the critical goals and activities necessary to protect lives and property, ensure public safety, and restore essential services during and after an emergency. These objectives address immediate needs and coordinate recovery efforts effectively. Below are examples of response objectives.
 - **Protecting Lives and Property**
 - Contact and prepare search and rescue teams.
 - Establish clear evacuation routes, avoiding landslide-prone areas.
 - Strengthen buildings and infrastructure to mitigate damages.
 - Improve drainage systems in high-risk flood zones.
 - Build diversion dams to help redirect water flow.
 - **Ensuring Public Safety and Security**
 - Set up shelters for displaced populations.
 - Implement an early alert system to warn of dangerous conditions.
 - Prepare for temporary emergency shelters and medical facilities.
 - **Coordinating Disaster Response and Recovery Efforts**
 - Establish a centralized communication hub.
 - Collaborate with FEMA, the National Guard, and other agencies for government assistance.
 - Deploy search and rescue teams to high-priority areas.
 - **Restoring Critical Infrastructure and Utilities**
 - Prioritize hospitals, healthcare facilities, water, power, and road restoration.
 - **Communicating with the Public**
 - Ensure clear, accurate, and concise dissemination of information during the response.
- For more information on developing response objectives, click this [LINK](#).

County-Specific Response Objectives

- Please describe the specific response objectives created by your county during the Hurricane Helene response efforts.
 - (ANSWER HERE)
- If your county has not yet developed response objectives, you are encouraged to create detailed response objectives addressing recovery efforts moving forward. Please describe these below.
 - (ANSWER HERE)

Overview of Operational Goals

- **Operational goals** are actionable steps designed to address immediate needs and guide the overall response during a disaster. These goals ensure coordination among teams, prioritize critical tasks, and support affected populations effectively. Examples of operational goals should be based on are described below.
 - **Evacuating affected populations**
 - Implement evacuation orders, ensuring safe transit for residents and coordination with local authorities to manage evacuation routes.
 - **Set Up Emergency Shelters**
 - Establish shelters equipped with essential supplies such as bedding, food, and medical kits to accommodate displaced populations.
 - **Restore Power and Communications**
 - Deploy linemen and electricians to repair power lines, set up emergency generators, and establish temporary communication systems.
 - **Conduct search and rescue operations**
 - Mobilize search and rescue teams with specialized equipment to locate and assist individuals in affected areas.
 - **Provide food, water, and medical support**
 - Distribute emergency food and water supplies and set up temporary medical facilities to deliver urgent healthcare services.
 - *For more information on operational goals, click this [LINK](#).*

County-Specific Operational Goals

- Please describe the specific operational goals created by your county during the Hurricane Helene response efforts.
 - (ANSWER HERE)
- If your county has not yet developed operational goals, you are encouraged to create some to guide recovery efforts moving forward. Please describe them below.
 - (ANSWER HERE)

Response Timeline

- A **response timeline** is a chronological record of key actions taken before, during, and after a disaster. It helps document response efforts throughout an emergency situation. A well-documented timeline provides insight into what worked well and identifies areas for improvement, aiding future preparedness and recovery plans.
- Please record your region-specific response timelines for Hurricane Helene in the indicated spaces below. Entries should include specific actions, dates, and details to provide a clear picture of the sequence of events during the response effort.

County-Specific Response Timeline

Please note that the timeframes of these recovery phases may overlap, as recovery efforts often occur simultaneously rather than sequentially.

- **Immediate response, evacuation orders, and shelter setup**
 - **Timeframe:** From (INSERT START DATE) to (INSERT END DATE).

- (INSERT # OF EVACUATION ORDERS) Evacuation orders were sent out and received by (INSERT # OF RESIDENTS) residents of (INSERT NAME OF) county at (INSERT TIME AND DAY).
- (INSERT # OF SHELTERS) shelters were set up, and residents were notified of the shelter's location and capacity by (INSERT TIME AND DAY).
- First responders were (ABLE/UNABLE) to receive and respond to emergency calls on these dates: (INSERT TIME PERIOD).
 - If there were issues with receiving calls, please describe them here. Additional details can be included in the "Response and Recovery Operations" section.
 - (ANSWER HERE)
- Updates and information were posted to a publicly accessible online platform (INSERT # OF HOURS) hours after landfall.
 - Describe which platform this was, how long updates were provided, and if it is still in use.
 - (ANSWER HERE)
- (INSERT ADDITIONAL IMMEDIATE RESPONSE, EVACUATION ORDERS, AND SHELTER SETUP EFFORTS)
- **Search and rescue operations and flood response**
 - **Timeframe: From (INSERT START DATE) to (INSERT END DATE).**
 - (INSERT # OF TEAMS) search and rescue teams were deployed to (INSERT # OF LOCATIONS) different locations.
 - (INSERT # OF PEOPLE) individuals were recovered, and (INSERT # OF PEOPLE) remain missing.
 - (INSERT # OF TEAMS) teams assessed flood-related damages.
 - (INSERT # OF TEAMS) restoration teams cleared mud and debris from roads.
 - (INSERT ADDITIONAL SEARCH AND RESCUE OPERATIONS AND FLOOD RESPONSE EFFORTS)
- **Power restoration, supply distribution, and initial damage assessments**
 - **Timeframe: From (INSERT START DATE) to (INSERT END DATE).**
 - (INSERT # OF LINEMEN/ELECTRICIANS) linemen and electricians set up emergency generators, prioritizing shelters and healthcare institutions. Afterward, they repaired power lines to restore power across the community.
 - (INSERT # OF CENTERS) donation centers were established for the collection and distribution of supplies.
 - (INSERT # OF SHELTERS) medical shelters were established to provide immediate care for those in need.
 - (INSERT # OF TEAMS) teams conducted detailed assessments of flood-related damages.
 - (INSERT ADDITIONAL POWER RESTORATION, SUPPLY DISTRIBUTION, AND INITIAL DAMAGE ASSESSMENT EFFORTS)
- **Extended community recovery efforts**
 - **Timeframe: From (INSERT START DATE) to (INSERT END DATE).**
 - (INSERT # OF MEALS) meals were distributed to affected individuals through local food programs.
 - Restoration teams such as (INSERT NAMES OF TEAMS) were deployed to clear mud, debris, and fallen trees from major roads and repair houses and structures.
 - (INSERT # OF HOMES) homes were inspected for structural safety, and (INSERT # OF PROPERTIES) were marked for repairs.
 - (INSERT # OF WATER SYSTEMS) water systems were tested and restored to ensure safe drinking water.
 - (INSERT ESTIMATE OF # OF VOLUNTEERS) volunteers assisted in distributing supplies and coordinating cleanup efforts.
 - (INSERT ADDITIONAL COMMUNITY RECOVERY EFFORTS)

Response and Recovery Operations

Evacuation and Rescue Operations

- Please fill in the following template to guide the documentation of your county's specific evacuation and response operations.
 - There are (INSERT #) residents in (NAME) county (INSERT MOST RECENT STATISTICS). An evacuation order was established at (TIME) on (DATE) in (NAME) county and came into effect on (INSERT TIME AND DATE).
 - An estimated (INSERT #) people were evacuated for Hurricane Helene in (COUNTY NAME) county.
- Please describe whether this evacuation was mandatory or not. If it was mandatory, please describe the populations required to evacuate (certain residential areas, population groups, etc.) *If you have any information on warnings established before an evacuation order, please insert it below as well.*
 - (ANSWER HERE)
- Please provide a detailed description of the evacuation, including who assisted with evacuations (i.e., law enforcement, fire, EMS, national guard, etc.), the number of teams deployed, and describe (if able) the proportion of first responders from each organization concerning the total number of evacuees (ex. # of National Guard evacuations/# of total evacuations). Also describe the types of evacuations performed (ex. swift water rescue).
 - (ANSWER HERE)
- Please describe any issues that arose during the evacuation, including traffic, loss of power and service, lack of communal transportation, etc. Furthermore, describe the geography of the county regarding evacuation ability (what are routes commonly used to evacuate, where can one evacuate to, etc.).
 - (ANSWER HERE)

Health and Medical Services

- Please fill in the following templates to guide the documentation of your county's specific temporary housing efforts.
 - There have been, in total, (INSERT #) temporary housing shelters that have opened up for hurricane relief.
 - *Please list (if able) the dates of shelter opening and closing for **each** shelter in your county using the template below, and add rows as necessary.*
 - *Add more rows if applicable.*

Temporary Housing Location (include address)	Open Date	Close Date (or active)	Total # of people served
(NAME AND ADDRESS)	(DATE)	(DATE OR "ACTIVE")	(NUMBER)

- Please fill in the following templates to guide the documentation of your county's specific point of distribution (POD) efforts.
 - There have been, in total, (INSERT #) POD areas that have opened up for hurricane relief.
 - *Please list (if able) the dates of center opening and closing for **each** shelter in your county using the template below, and add rows as necessary. Furthermore, please provide what was distributed at each center.*
 - *Add more rows if applicable.*

POD Location (include address)	Open Date	Close Date (or active)	Detailed description of supplies distributed (include breakdown of supply distribution and quantities)
(NAME AND ADDRESS)	(DATE)	(DATE OR "ACTIVE")	(DESCRIPTION)

- Please fill in the following templates to guide the documentation of your county's medical center resources.
 - (INSERT #) of medical centers were identified in hurricane response efforts.
 - Please describe (if able) the number of medical centers already existing before Hurricane Helene and those established for hurricane response efforts. If there is information on the number of staff who responded to the hurricane at each location, please include that as well. However, that information is not mandatory.
 - Add more rows if applicable.

Medical Center (include address)	Open Date (if established for hurricane response)	Close Date (or active)	Organizations that established medical centers (i.e., FEMA, non-profits, etc.)	# of personnel identified in response
(NAME AND ADDRESS)	(DATE)	(DATE OR "ACTIVE")	(NAMES)	(NUMBER)

- Please describe any events that caused or could have potentially caused health concerns (water main breaks, power outages, etc.). If you have data on how many hurricane-related illnesses and injuries in your county, please list that here. If these issues have been resolved, please list them here. If not, please provide (if able) a rough estimate of when a resolution could be reasonably accomplished.
 - (ANSWER HERE)
- What was your organization's response to health events? What was managed well? What are some opportunities for improvement? Please list, if able, at least one example of effective response efforts and at least one example where there is an opportunity for improvement.
 - (ANSWER HERE)

Public Information and Communication

- Provide a detailed description of communication strategies. Was your team proactive and consistent in communication? What communication strategies were used to provide information (how are you distributing news, what social media platforms are you utilizing, did you post physical news anywhere (ex. fire and police stations), did you have any media partners):
 - (ANSWER HERE)
- Reflect the reception of communications that took place and the community response due to public information released. In your opinion, provide how you believe the general community responded to the communication that took place?
 - (ANSWER HERE)

Coordination with Partner Agencies

- This section outlines the coordination efforts with federal, state, local, and non-governmental agencies during Hurricane Helene's response. Multiple agencies played key roles in providing disaster relief, from federal organizations like FEMA and the National Guard to local health departments and volunteer organizations.
 - **Federal, State, and Local Coordination**
 - FEMA, NCEM, and local governments coordinated disaster response efforts, but there were issues with FEMA's communication and misunderstandings about the scope of aid, such as the \$750 emergency assistance, which was not the only support available.
 - **Non-Governmental Organizations (NGO) and Private Sector Involvement**
 - NGOs like the Red Cross and volunteer groups provided shelter, food, emotional support, and helped restore power and clear debris, working alongside federal and state agencies.
 - **Interagency Collaboration**
 - Collaboration between agencies is important for efficient disaster response, but regional challenges, such as damaged infrastructure and poor communication, made coordination difficult in some regions affected by Hurricane Helene.
- Please complete the table below outlining which partner agencies were present in your community and describe their role and contributions

Type of Organization	Organization	Details of Scope	Links	Present in your county?	Description of their role and contributions
Federal	Federal Emergency Management Agency (FEMA):	Key Functions: Provides individual assistance, public assistance, and hazard mitigation grants; deploys Urban Search and Rescue (USAR) teams and Incident Management Assistance Teams (IMAT).	<u>FEMA</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
Federal	U.S Coast Guard (USCG)	Responsible for search and rescue operations, as well as ensuring maritime safety. Assistance: -Conducts search and rescue missions during hurricanes, particularly in flooded areas and at sea. -Helps with the evacuation of people from	<u>USCG</u>	YES/NO	(DETAILS HERE IF APPLICABLE)

		<p>flooded or isolated areas.</p> <p>-Provides safety advisories and assists in managing hazardous materials or oil spills caused by the hurricane</p>			
Federal	The Disaster Distress Helpline	Available for those who are experiencing emotional distress from the hurricane. They can be called or texted through their hotline and offer counseling services 24 hours a day, 7 days a week. You can contact the hotline without providing identifying information.	<u>Disaster Distress Helpline</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
State	North Carolina Emergency Management (NCEM)	NCEM coordinates with local governments, federal agencies, and other organizations to provide immediate disaster relief during emergencies, including shelter, food, and medical aid. After hurricanes, NCEM helps local communities with recovery operations, providing funding, resources, and support for rebuilding efforts.	<u>NCEM website</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
State	The Foodbank of Central and Eastern Carolina	Provides meals, supplies, and emergency kits to families and individuals in the 25 affected counties. Volunteers and staff are available to drop off meals and supplies. They can be contacted through their hotline.	<u>The Foodbank of Central and Eastern Carolina</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
Local	Appalachian Medical Reserve Corps	This corps is composed of Appalachian volunteers with educated health and safety backgrounds. They help those who are hurt	<u>Appalachian Medical Reserve Corps</u>	YES/NO	(DETAILS HERE IF APPLICABLE)

		or displaced or find those who are missing. They are mainly in action in rural areas that were hit hard by the hurricane.			
Local	Health Departments	Local health departments, like the Polk County Health Department, are key in providing emergency medical services, distributing water and food, and managing disease control efforts after hurricanes.	<u>Polk County Health Department</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
NGO or private sector	The Footprint Project	It is a nonprofit organization of volunteers that partners with a local solar power energy company to deliver a solar power generator, 6 panels, a volt battery, and an AC inverter. So far, the Footprint Project has served over 33 sites.	<u>Footprint Project</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
NGO or private sector	Red Cross	Ensures the safety of those impacted by Hurricane Helene. They provide shelter, food, emotional support, and critical relief items. The Red Cross also works individually with survivors to help them plan their recovery.	<u>The Red Cross</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
NGO or private sector	The Samaritans Purse	Volunteers working with Samaritan's Purse assist homeowners and help with debris cleanup, mud outs, and roof tarping.	<u>The Samaritan's Purse</u>	YES/NO	(DETAILS HERE IF APPLICABLE)

NGO or private sector	The Salvation Army	The Salvation Army provides emergency shelter, food, and medical services, as well as long-term recovery efforts like housing and financial aid for displaced families.	<u>The Salvation Army</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
NGO or private sector	The Convoy of Hope	The convoy of hope is a faith-based organization driven by disaster relief, feeding children initiatives, and community outreach. They have given over 3 million pounds of supplies to sixty communities impacted. They turn churches and auditoriums into disaster relief shelters for those who are displaced by the storm.	<u>The Convoy of Hope</u>	YES/NO	(DETAILS HERE IF APPLICABLE)
NGO or private sector	Appalachia Service Project (ASP)	ASP brings together volunteers, including youth groups and adults, to work on homes by making necessary repairs such as replacing roofs, installing new floors, repairing plumbing, and upgrading heating systems. The organization works closely with local communities, using a combination of volunteer labor and donations to provide these services at no cost to the families they assist.	<u>The Appalachia Service Project</u>	YES/NO	(DETAILS HERE IF APPLICABLE)

Key Successes

S.W.O.T./S.W.O.C. Analyses: What They Are and How to Use Them

- [S.W.O.T. analysis](#) is a strategic planning technique that provides assessment tools. While traditional S.W.O.T. analysis assesses strengths, weaknesses, opportunities, and threats, it has been reframed to

S.W.O.C to address the specific needs of Western, NC. This approach reframes threats as challenges, emphasizing the measures taken to overcome them. Below are detailed descriptions of the components with relevant examples.

- **Identify strengths:** what did your community excel with during, before, or after Hurricane Helene?
 - Examples: Timely response, timely evacuation of vulnerable people, early notification of community members, strong communication within and between federal, state, and local agencies, effective supply distribution, fast restoration of power and utilities, and effective shelter management.
- **Identify weaknesses:** what could your community improve to better outcomes for any future catastrophic event?
 - Examples: Delayed response, delayed evacuation of vulnerable people, slow restoration of power and utilities, delayed notification of community members, weak or difficult communication within and between federal, state, and local agencies, supply distribution challenges, weak disaster response infrastructure, disorganized shelter management.
- **Identify opportunities:** What favorable external factors gave your community an advantage during the disaster? What lessons did your community learn from other communities? What opportunities were available for community involvement in the disaster response?
 - Examples: Volunteer efforts and local support, sharing resources, opportunities for technology use (social media, GIS mapping, drones), access to 4 wheelers/ mules/horses)
- **Identify challenges:** What challenges were faced and how were they avoided? What unique challenges did your community face and how did you overcome them? How could these challenges be avoided in the future? What could be done to be better prepared?
 - Examples: The housing crisis, individual displacement, water and electricity infrastructure damage, road damage, Flood zones, food accessibility, access to medical care, road access to the community (rural communities), lack of service (emergency notifications), misinformation, politics

How to collect information for S.W.O.C. analysis

- In order to discuss S.W.O.C. analysis with community members, activities should be created to engage individuals in group discussions. These discussions should include diverse groups of the population with a wide range of experiences related to Hurricane Helene in order to gather accurate and comprehensive information.
- Below are examples of potential activities
 - Focus group discussions
 - Interviews with local residents
 - Mailed surveys/ online surveys
 - Interviews with key stakeholders (community leaders, store owners, local politicians)
 - Formal and informal discussions with incident command system individuals.
- *For more information on conducting focus groups, click this [LINK](#).*
- *For more information on conducting interviews, click this [LINK](#).*

S.W.O.C. Analysis Template

- After information has been gathered using various methods, responses should be compiled and organized into a comprehensive S.W.O.C. analysis.
- Below is a template for a S.W.O.C. analysis for Hurricane Helene. Please highlight all examples that apply to your specific county and write in any other relevant examples based on your regional experience.

Element	Examples (highlight all that apply)	Write in any other examples based on regional experience
Strengths	<p>Timely response</p> <p>Timely evacuation of vulnerable people</p> <p>Early notification of community members</p> <p>Strong communication within and between federal, state, and local agencies.</p> <p>Effective supply distribution</p> <p>Fast restoration of power and utilities, effective shelter management</p>	(ADDITIONAL STRENGTHS HERE)
Weaknesses	<p>Delayed response</p> <p>Delayed evacuation of vulnerable people</p> <p>Slow restoration of power and utilities delayed notification of community members</p> <p>Weak or difficult communication within and between federal, state, and local agencies</p> <p>Supply distribution challenges</p> <p>Weak disaster response infrastructure</p> <p>Disorganized shelter management.</p>	(ADDITIONAL WEAKNESSES HERE)

Opportunities	<p>Volunteer efforts and local support</p> <p>Sharing resources</p> <p>Opportunities for technology use (social media, GIS mapping, drones),</p> <p>Access to 4-wheelers/ mules/horses</p>	<p>(ADDITIONAL OPPORTUNITIES HERE)</p>
Challenges	<p>Housing crisis</p> <p>Individual displacement</p> <p>Water and electricity infrastructure damage</p> <p>Road damage</p> <p>Flood zones</p> <p>Food inaccessibility</p> <p>Lack of access to medical care</p> <p>Road access to community issues (rural communities)</p> <p>Lack of service (emergency notifications)</p> <p>Misinformation/politics</p>	<p>(ADDITIONAL CHALLENGES HERE)</p>

Key Successes Summary

- After completing the S.W.O.C. analysis, collect relevant answers from each section and use the template sentences below to summarize the main successes, weaknesses, opportunities, and challenges. Add additional summarizing sentences as needed to describe the unique experiences of your county.
 - **Evacuation and Response Successes:**
 - The main successes related to evacuation and response in (INSERT COUNTY) were (INSERT SUCCESSES).
 - **Communication and Coordination Successes:**
 - The main successes related to communication and coordination in (INSERT COUNTY) were (INSERT SUCCESSES).
 - **Resource Distribution and Management Successes:**
 - The main successes related to resource distribution and management in (INSERT COUNTY) were (INSERT SUCCESSES).
 - **Community Engagement and Support Successes:**
 - The main successes related to community engagement and support in (INSERT COUNTY) were (INSERT SUCCESSES).
 - **Additional Successes:**
 - Additional successes seen in (INSERT COUNTY) include (INSERT SUCCESSES).

Areas for Improvement

- This section provides clear steps for participants to identify areas of improvement, develop actionable plans, and take meaningful steps forward. By setting rules, brainstorming solutions, and prioritizing ideas, this document will guide participants to work collaboratively to address challenges. Exercises like the Problem Statement, How Might We (HMW) ideation, and Impact/Effort Matrix will guide teams toward practical solutions and sustainable improvements. Please complete the outlined exercises, modifying them as necessary to fit your unique situation. Exercises are designed to be completed in-person but can easily be modified to be completed using other mediums.

Step 1. Setting Rules and Expectations

- The following exercises will guide you through quality improvement and design thinking tools to discuss, prioritize, and establish areas of improvement.
- This will require you as a team to use difficult language to facilitate change.
- Take the time as a team to create up to five rules and expectations to ensure respect and a positive work environment as you work through the exercises.


1. (RULE / EXPECTATION HERE) _____
2. (RULE / EXPECTATION HERE) _____
3. (RULE / EXPECTATION HERE) _____
4. (RULE / EXPECTATION HERE) _____
5. (RULE / EXPECTATION HERE) _____

Step 2. Identifying and Prioritizing Areas of Improvement

- The following Think, Pair, Share exercise will guide participants through identifying areas of improvement. The supplies needed are pens and sticky notes.
 - **THINK! (5 min)**
 - Distribute sticky notes to participants
 - Prompt: Write down at least three areas of improvement based on the SWOC analysis and previous discussion on the sticky notes.
 - Note: Areas of improvement could entail things that went wrong, things that could be improved, or anything else that could be improved upon the next time an emergency occurs. It is more than acceptable to use negative language here.
 - **PAIR! (5-7 min)**
 - Pair up with the person sitting next to you and discuss your areas of improvement.
 - Do you have any of the same areas of improvement? What about the different areas of improvement?
 - Consolidate any repeats to one sticky note if applicable, or write down any new areas of improvement on another sticky note.
 - **SHARE! (10-20 min)**
 - Place the sticky notes on a wall. Have the facilitator of the group talk through each of the sticky notes.
 - What are the common concepts underlying your areas of improvement? Group the areas of improvement into those common concepts on the wall.
- Here are examples of potential key concepts for this activity:
 - **Logistical Challenges:**
 - Delays in resource delivery (food, water, medical supplies)
 - Breakdown of supply chains in rural areas
 - **Communication Issues:**
 - Inconsistent communication between agencies
 - Delays in public warning systems or confusion during evacuation orders
 - Ineffective communication with the public
 - **Coordination and Planning:**
 - Lack of clarity on roles/responsibilities between federal and state responders
 - Insufficient pre-disaster planning for rural, mountainous regions
 - **Training and Staffing:**
 - Inadequate training for local responders for such a large-scale disaster
 - Need for more staff during peak response times
 - **Infrastructure Resilience:**
 - Vulnerability of roads and bridges to landslides
 - Lack of redundant power systems for hospitals and emergency centers

Step 3. Developing Goals, Strategies, and an Action Plan

- This step involves the “How Might We” (HMW) method. HMW is a design thinking method that allows participants to reframe and open up their problem statements for efficient, targeted, and innovative ideation sessions to help solve challenges.
- *For more information on conducting interviews, click this [LINK](#).*
- The image below outlines the basis of the HMW formula.




“How Might We” Formula

How Might We + Intended Action
(as an action verb) + **For** + Potential User
(as the subject) + **So That** + Desired Outcome

For example:

- How might we **provide healthier meals** for **teenagers** so that **they stay away from junk food**?



- Use the following steps to create a HMW. Work through specific problem statements developed during the Think, Pair, Share exercise from step 2.
 - **HMW STEPS:**
 1. Clearly define the problem or challenge with a concise problem statement to capture the core of the problem. This sets the foundation for HMW questions.
 2. Break down the problem statement into its key components.
 3. Choose an action verb that prompts action and exploration.
 4. Insert the subject relevant to the challenge or problem.
 5. Add a provocative element to encourage creative and fresh thinking.
 6. Generate several HMW questions by varying the action verbs, subjects, and provocative elements.
 7. Review and prioritize the HMW questions based on their relevance and potential impact. Clarify the language as needed.
 8. Test HMW questions within the design team or with stakeholders. Iterate based on feedback and insights—explore variations of HMW questions, such as "In what ways might we..." or other creative prompts.
 9. Develop follow-up questions to deepen understanding and guide the ideation process.
- If needed, reference the following examples of HMW statements for Hurricane Helene:
 - **“How might we increase water accessibility for residents without water in ____ county so that residents can drink clean water, take showers, and self-sustain post-disaster”**
 - **“How might we enhance communication for people in ____ county so that those who need to evacuate are informed promptly”**
- Next, complete the following exercise to engage in idea ideation based on the HMW statements.
 1. Given our new “How might we statements” take 5 minutes to brainstorm and write down as many ideas or recommendations you might have to achieve these goals.
 2. Share sticky note ideas with the group and display them on a wall. Now move to the impact/effort matrix exercise to figure out which ideas/recommendations to include in the after-action report.

Step 4. Taking and Sustaining Action

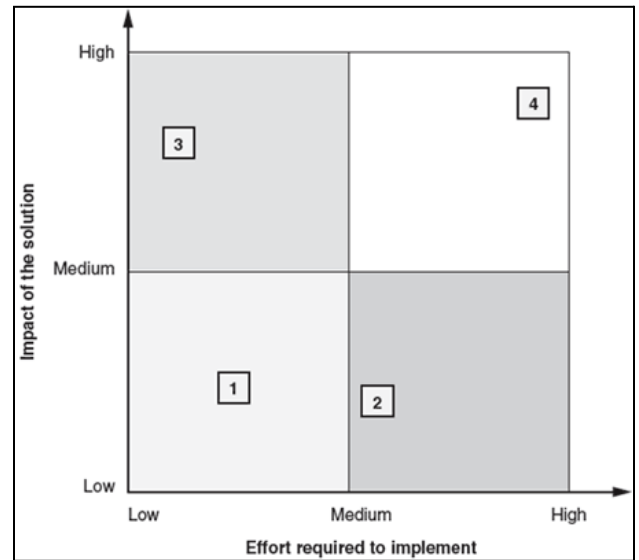
- This step involves utilizing an “impact/effort matrix” to prioritize solutions based on their potential impact and the effort required for implementation.
- For more information on impact/effort matrices, click this [LINK](#).
- Follow the steps below to complete the impact/effort matrix.
 1. Create an impact/effort matrix (2x2) diagram as shown below.
 2. Go one by one with each sticky note, and facilitate where each idea falls on the matrix.

Upper left: These represent the best solutions – low effort and high reward. The team should place the highest priority on ideas in this quadrant.

Upper right: These are great solutions, but they require a higher level of effort. Teams should only pursue these solutions if the business is fully committed to sticking with completing the hard work involved over the long haul.

Lower left: While these solutions take little effort, they should only get attention once more rewarding solutions are addressed.

Lower right: Solutions that fall in those grid quadrants should not become priorities. Teams should instead determine whether they are worth doing at all.



For a digital version of the impact/effort matrix click this [LINK](#).

- Next, place any recommendations in the upper left quadrant and upper right quadrant into the table below.
 - Example responses are provided.
 - Add more rows if applicable.

Key concept	Area for Improvement	Recommendations	Responsible Organization
Example: Communication Issues	Example: Ineffective public communication on the severity of Hurricane Helene	Example: <ul style="list-style-type: none"> Ensure national news coverage is alerting effective regions of the severity of storms Have EMS/police do a drive-by alarm to alert people to evacuate 	Example: EMS, Police
(YOUR RESPONSE HERE)	(YOUR RESPONSE HERE)	(YOUR RESPONSE HERE)	(YOUR RESPONSE HERE)
(YOUR RESPONSE HERE)	(YOUR RESPONSE HERE)	(YOUR RESPONSE HERE)	(YOUR RESPONSE HERE)

Lessons Learned

General Overview

- The purpose of this section is to bring response team members together to productively analyze and enhance emergency management plans and procedures. Assessing communities' infrastructure and incorporation of a protection plan, addressing flood barriers, landslide mitigation, and storm-proofing critical facilities. Vulnerable areas and areas for improvement should be discussed.
- Below are important areas to consider when discussing lessons learned.
 - **Pre-disaster planning:**
 - Importance of tailored evacuation plans for rural areas
 - Community education on flood risks and disaster preparedness
 - Evaluate and upgrade communications equipment to ensure that they are properly working (landlines, two-way radios, etc.)
 - **Conducting preparedness activities:**
 - **Preparedness cycle activity**
 - This includes planning, organizing and equipping, training, conducting an exercise, evaluation, and improvement.
 - **Disaster drills**
 - These should involve relevant emergency response individuals.
 - **Assessing preparedness activities:**
 - After-action review
 - This should include discussions of individuals' experiences with the activities.
 - Questions should be asked to gauge the effectiveness of the activity and to analyze what was learned.
 - Example questions: "What did we set out to do? What actually happened? Why did it happen? What can we do differently next time?"

County-Specific Lessons Learned

- **Using information gathered throughout this after-action report, participants should discuss the major lessons learned throughout the experience of Hurricane Helene.**
 - Answer the following questions in regards to the hurricane response with your county's specific experiences in mind.
 - What did we set out to do?
 - What actually happened?
 - Why did it happen?
 - What can we do differently next time?
- **Answer the following questions based on your answers above and throughout the rest of the after-action report.**
 - **Preparedness:**
 - What were the main preparedness objectives for our county prior to Hurricane Helene?
 - (ANSWER HERE)
 - What preparedness actions or plans were most effective in our county?
 - (ANSWER HERE)
 - Which aspects of our county's preparedness plan were lacking or needed improvement?
 - (ANSWER HERE)
 - How can our county improve community education and engagement on flood risks and evacuation plans?

- (ANSWER HERE)
- What specific improvements should be made to our county's communication systems before the next disaster?
 - (ANSWER HERE)
- **Response:**
 - What were the primary goals of our county's response to Hurricane Helene, and were they met?
 - (ANSWER HERE)
 - How well did our county coordinate with local, state, and federal agencies during the hurricane response?
 - (ANSWER HERE)
 - What challenges did our county face in mobilizing resources during the response?
 - (ANSWER HERE)
 - What role did local emergency response teams play, and were there any gaps in staffing or training?
 - (ANSWER HERE)
 - How did our county handle evacuation efforts, and what can be done to improve evacuation planning for the future?
 - (ANSWER HERE)
- **Post-Disaster (Recovery & Improvement):**
 - After the hurricane, what improvements should be made to disaster drills and exercises in our county?
 - (ANSWER HERE)
 - What was the most effective part of our recovery efforts, and what can we build on in the future?
 - (ANSWER HERE)
 - How can our county improve post-disaster communication to ensure residents stay informed and safe during future emergencies?
 - (ANSWER HERE)
 - What steps should be taken to enhance the resilience of our county's infrastructure in future disasters?
 - (ANSWER HERE)

Conclusion

- **Overall Response Assessment:**
 - The response to Hurricane Helene was largely successful in saving lives and mitigating the disaster's impacts, but improvements in logistics, coordination, and infrastructure resilience are necessary for future events.
 - (INSERT ADDITIONAL COUNTY-SPECIFIC STATEMENT REGARDING OVERALL RESPONSE ASSESSMENT)
- **Next Steps:**
 - Implement recommended training programs
 - Upgrade critical infrastructure
 - Improve pre-disaster planning and communication strategies
 - Conduct follow-up assessments and community outreach
 - (INSERT ADDITIONAL COUNTY-SPECIFIC NEXT STEPS)
- **Concluding Thoughts:**
 - Please fill out a brief summary of your thoughts, opinions, or concerns you faced with the completion of this After Action Report.
 - (ANSWER HERE)