I. INTRODUCTION

A. PURPOSE

This appendix outlines the coordinating actions taken by the State Emergency Response Team (SERT) when a hurricane threatens North Carolina.

B. SCOPE

This appendix includes the anticipated actions of the Federal, State and local agencies, as well as private sector organizations.

II. SITUATION AND ASSUMPTIONS

A. SITUATION

Due to its geographic position, North Carolina can experience both direct and indirect impacts from tropical cyclones. There are several paths that a hurricane may take, all of which result in varying effects to North Carolina (Fig. 1). A “coastal track” (where the hurricane skirts the coastline) typically results in a threat of heavy rain, high winds and storm surge across portions of central and eastern North Carolina. A “gulf track” (when a hurricane makes landfall on the Gulf Coast and moves northward) often brings heavy rains and flooding to the western portion of the State. A “direct hit” can cause statewide damage from heavy rain, high winds and storm surge and often results in the most widespread impacts.
Although tropical cyclones can occur during any month of the year, they are most common during the official Atlantic Hurricane Season (June 1st through November 30th). The peak of hurricane season occurs from mid-August through mid-October, North Carolina’s climatologically favored period for tropical cyclones. The low lying nature of the coast, high number of inlets and sounds, and extensive coastal development makes North Carolina especially vulnerable to tropical cyclones.
North Carolina is home to one of the most hurricane prone coastlines in the country. On average a hurricane passes within 50 miles of the coast every 5-7 years (Fig. 2a). While major hurricanes are less common, on average North Carolina averages one passing within 50 miles of the coastline every 16-21 years (Fig. 2b). Impacts may still be felt if a hurricane makes landfall along an adjacent coastline. (National Hurricane Center)
B. ASSUMPTIONS

1. Statewide impacts from a dangerous tropical cyclone have occurred, resulting in widespread, significant effects across North Carolina.

2. Catastrophic damage from heavy rains, high winds and storm surge has occurred across a significant portion of North Carolina. Roads may be gone or impassable and many structures are severely or completely destroyed.

3. Farther inland, significant tree and some structural damage has occurred due to high winds. Roads here may also be impassable due to debris.

4. Much or all of the State has received excessive rainfall. Smaller rivers and streams will be flooding during and shortly after the storm, while larger rivers will experience major flooding in the days and weeks after the storm has passed. Dam failures will also occur. Sections of interstate and especially secondary roads will be blocked due to washouts and water on the roadway.

5. Flooding rains have caused animal waste ponds to overflow and sewage treatment facilities have failed. Drinking water will not be potable without boiling for weeks after landfall.

6. There are widespread and extensive power outages due to high winds knocking down power lines across a large area of the State. Due to the extent of power outages, some areas may not have electricity for days to weeks.

7. Emergency transportation of resources (inbound response and outbound disposal) may require permits, licenses, or exemptions.

8. Significant impacts from a tropical cyclone will require joint Federal, State and local efforts to perform initial damage/needs assessment information concerning the number, type and magnitude of incidents.

9. Weaker storms with less impact may only require the partial activation of this appendix and may involve coordination between NCEM and other supporting State agencies.
III. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. LEAD STATE AGENCY

1. NC DEPARTMENT OF PUBLIC SAFETY (NCDPS)

NORTH CAROLINA EMERGENCY MANAGEMENT (NCEM)

a. Support local government efforts through resource and technical assistance during emergencies.

b. Provide real-time projection and analysis of flooding impacts.

c. Coordinate State and Federal response and recovery activities.

d. Provide aerial imagery (video, photos, and photogrammetry) via unmanned aerial vehicles (UAVs).

B. SUPPORTING STATE AGENCIES

1. NC DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES (NCDA&CS)

a. Assess incident impact on food, agriculture, agribusiness, animals, and other areas regulated or supported by the mission of NCDA&CS.

b. Report disaster facts, loss records, response information and other impact data from the agriculture sector to Agriculture Incident Management Team (AgIMT) and, by way of the Liaison Officer, the SERT.

c. Protect the safety and security of the commercial food supply.

d. Respond to and mitigate animal and plant disease outbreaks or potential disease situations and pests.

e. Coordinate with Public Health officials and other partners to implement strategies for protecting public health and general welfare.

f. Formulate and coordinate public information, guidance, recommendations, and information through approved channels with appropriate partners to the SERT, industry leaders, agriculture producers, and the public.
g. Promote and implement actions and strategies that maintain consumer confidence for food and agriculture health and security.

h. Provide guidance for the safety and sheltering of companion animals.

i. Provide general and technical assistance to industries, partners, and other entities or persons, as requested, within the scope and mission of NCDA&CS and the ESF11 response.

EMERGENCY PROGRAMS DIVISION (OEP)

a. Coordinate on behalf of the Commissioner of Agriculture with NC Emergency Management on the Governor’s Executive Order declaring a State of Emergency and any transportation waivers.

b. Activate the AgIMT to manage and coordinate the overall food and agriculture response for the Department, partner and affiliate organizations, and agriculture stakeholders.

c. Collect and retain disaster facts, loss records, response information and other impact data to the agriculture sector from reliable sources.

d. Develop recovery strategies and reports and serve as NCDA&CS lead for recovery.

e. Provide SERT Liaison for the response to the Human Services Functional Group.

NORTH CAROLINA FOREST SERVICE (NCFS)

a. Assist local governments and NCDOT in road clearance operations to reestablish critical access post storm.

b. Provide personnel and equipment to construct foot bridges and other means of temporary access to reestablish critical access to isolated areas.

c. Provide personnel to support Incident Management Teams (IMTs).

d. Provide personnel and equipment to support logistical requirements of disaster such as but not limited to: bridge mats, high clearance volume pumps, as well as heavy equipment.
2. NC DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ)

DIVISION OF AIR QUALITY (DAQ)

a. Assist with facility outreach prior to storm impacts to prepare and mitigate potential hazardous materials releases as a result of the storm impacts.

b. Assist with response to high risk facilities who either fail to respond or require assistance to mitigate hazardous materials release.

DIVISION OF WATER RESOURCES (DWR)

a. Assist with facility outreach prior to storm impacts to prepare and mitigate potential hazardous materials releases as a result of the storm impacts.

b. Assist with response to high risk facilities who either fail to respond or require assistance to mitigate hazardous materials release.

DIVISION OF MARINE FISHERIES (DMF)

a. Render law enforcement assistance as requested such as force protection for deployed resources as well as provide support to other local and state law enforcement agencies.

b. Provide resources to facilitate land, sea and air transportation.

c. Provide personnel and equipment to support enforcement of waterway restrictions.

d. Provide personnel and equipment to support logistical requirements of disaster such as but not limited to: high volume pumps and heavy equipment.

DIVISION OF WASTE MANAGEMENT (DWM)

a. Identify procedures for storage of debris pending disposal.

b. If debris is determined to be hazardous, provide a vendor list to the responsible party for proper waste management.
c. Issue emergency permits for treatment, storage, disposal, and transportation of debris and associated clean-up activities.

d. Provide vendor list to responsible party to facilitate cost assessment for proper waste management.

e. Identify landfills that will accept contaminated solid waste and facilities/vendors that will accept and treat contaminated liquid waste.

DIVISION OF PARKS AND RECREATION (DPR)

a. Evacuation of State parks when threats exist to public safety.

b. Coordination with other law enforcement agencies.

c. Provide areas on park property for use as assembly or staging areas for equipment and personnel.

d. Provide transportation and communication within State park areas.

e. Determine access points and routes least likely to harm park facilities and advise SERT Leader of same.

f. Provide a liaison to SERT authorized to grant permission for response and cleanup activities as well as issue any required permits concerning State park facilities.

g. Provide liaison and carry out technical consultations with US National Park Service if a national park/seashore is threatened.

3. WILDLIFE RESOURCES COMMISSION

a. Provide personnel and equipment to support law enforcement as requested by the SERT.

b. Provide air, water, and land transportation as requested by the SERT.

c. Act as liaison between the SERT and interested environmental and conservation groups.

d. Provide personnel and equipment to support law enforcement of waterway restrictions.
e. Provide technical support and leadership to support identification and removal of abandoned vehicles.

4. **NC DEPARTMENT OF HEALTH AND HUMAN SERVICES (NCDHHS)**

**DIVISION OF PUBLIC HEALTH (DPH)**

a. Coordinate public health nurses to support local and state shelter requirements.

b. Monitoring health of shelter populations for potential infectious disease outbreaks.

c. Coordinate well water testing for contaminants to render safe to drink after flooding.

d. Work with state agencies and NCEM ESF 6/8 on the provision of emergency first aid to victims at shelters, mass care facilities, and fixed feeding sites with counties.

**DIVISION OF SOCIAL SERVICES (DSS)**

a. Coordinate efforts to provide emergency shelters, mass care facilities, feeding, water, and distribution of relief supplies for victims of a hurricane, emergency assistance, and disaster public assistance.

b. Coordination/facilitation of the provision of sheltering during a hurricane emergency/disaster event including persons with functional needs (sensory, physical, mental limitations, and non-English speaking) with counties.

c. Coordination/facilitation of the provision of relief efforts provided by volunteer organizations with the counties.

d. Work with state agencies and NCEM ESF 6/8 on the provision of mental health/crisis counseling to victims at shelters, mass care facilities, and fixed feeding sites with counties.

e. Ensure all DHHS Divisions are staffed for response, recovery and mitigation.

f. Ensure all DHHS Divisions are on standby and are ready to deploy Division resources.
g. Notify Sensory and Foreign Language Interpreter Staff of NC DHHS and NC DHHS interpreter contracts to be on stand by and ready to deploy if requested.

h. Support the American Red Cross and other agencies in shelter staffing at designated Red Cross Shelters.

i. Coordinate with the following agencies for resource services – Child Development and Early Education, Vocational Rehabilitation Services, Services for the Blind, Deaf and Hard of Hearing, Office of Economic Opportunity, Office of Rural Health, Medicaid, Aging and Adult Services, and Mental Health.

DIVISON OF AGING AND ADULT SERVICES (DAAS)

a. Communicate with area agencies on aging, local service providers, and counties on the exchange of information relevant to the needs and outcomes of the aging and disability populations.

b. Collaborate as requested with human services agencies to assist counties in meeting the needs of individuals needing functional support sheltering services.

c. Collaborate as requested with NCEM ESF 8, DHSR, and DPH for individuals needing medical support sheltering services.

DIVISON OF MENTAL HEALTH, DEVELOPMENTAL DISABILITIES AND SUBSTANCE ABUSE SERVICES (MHDDSAS)

a. Coordinate/facilitate the provision of mental health/crisis counseling to victims at shelters, mass care facilities, and fixed feeding sites with counties.

b. Coordinate distribution of Naloxone to shelters, mass care facilities, and fixed feeding sites with counties.

DIVISION OF HEALTH SERVICE REGULATION (DHSR)

OFFICE OF EMERGENCY MEDICAL SERVICES (OEMS)

a. Provide leadership in coordinating and integrating the overall State efforts that provide medical assistance to a disaster-affected area.
b. Coordinate and direct the activation and deployment of State resources of medical personnel, supplies, equipment, and pharmaceuticals with Public Health as needed.

c. Assist in the development of local capabilities for the on-site coordination of all emergency medical services needed for triage, treatment, transportations, tracking, and evacuation of the affected population with medical needs.

d. Establish and maintain the cooperation of the various State medical and related professional organizations in coordinating the shifting of Emergency Medical Services resources from unaffected areas to areas of need.

e. Coordinate with the SERT Military Support Branch to arrange for medical support from military partners.

f. Coordinate the evacuation of patients from the disaster area when evacuation is deemed necessary.

g. Coordinate the state medical sheltering response by implementing the State Medical Support Sheltering Plan.

5. **NC DEPARTMENT OF INSURANCE (NCDOI)**

**OFFICE OF STATE FIRE MARSHAL (OSFM)**

a. Coordinate firefighting assets to support local response efforts.

b. Coordinate restoration of firefighting services and protection post storm.

c. Coordinate personnel to support additional building inspection resources to augment local capabilities.

6. **NC DEPARTMENT OF TRANSPORTATION (NCDOT)**

**DIVISION OF HIGHWAYS (DOH)**

a. Erect and maintain such signs, lights, barricades or other traffic control devices as deemed appropriate to maintain or control traffic along the affected routes or detour routes.

b. Remove sand/soil debris from State-maintained right of ways.
c. Provide SERT partners lists of contractors/suppliers to assist in the cleanup efforts of sites outside the State-maintained right of way.

d. When directed by NCEM, the Division of Highways will develop, let, and administer contracts for the removal of debris from private roads. Such contracts will be pre-approved by NCEM prior to advertisement and award.

FERRY DIVISION

a. Coordinate with USCG the movement of ferries through affected waterways.

b. Provide transportation to emergency personal and equipment as needed.

c. Assist in the evacuation of the affected population.

7. NC DEPARTMENT OF PUBLIC SAFETY (NC DPS)

NORTH CAROLINA NATIONAL GUARD (NCNG)

a. Provide trained military police for traffic control.

b. Provide security at established shelters.

c. Provide military forces to assist local law enforcement in the emergency area for security, control of entrance to and exit from disaster area, and protection of people and crowd control.

d. Provide a Rapid Reaction Force specially trained for response to public disturbances and riots.

e. Provide military forces to assist local and State resources in rescues and evacuations as needed.

f. Provide NCNG mission capable packages as requested through NCEM.

g. Provide transportation support.

CIVIL AIR PATROL (CAP)

a. Support and participate in aerial reconnaissance to assess damage
immediately after the hurricane strikes.

b. Provide personnel and equipment to support air and ground transportation.

c. Provide personnel to provide logistical support to SEOC activation.

d. Aerial Reconnaissance Teams (ART) will collect quick visual evidence of hurricane damage to allow optimum deployment and distribution of State resources during the hurricane recovery period.

STATE HIGHWAY PATROL (SHP)

a. Coordinate traffic control measures and isolation of the impacted area as needed.

b. Regulate motor vehicle traffic where indicated.

c. Provide communications support.

8. UTILITY PROVIDERS

a. Provide decision makers with up-to-date power outage information and expected restoration times.

b. Provide support as needed to other utilities if able.

c. Restore electrical power to residences and business.

d. Repair and restore any downed power lines and/or transformers.

C. SUPPORTING FEDERAL AGENCIES

1. US ARMY CORPS OF ENGINEERS (USACE)

a. Support immediate lifesaving and life safety emergency response priorities.

b. Sustain lives with critical commodities, temporary emergency power and other needs.

c. Initiate recovery efforts by assessing and restoring critical infrastructure.
2. US ENVIRONMENTAL PROTECTION AGENCY (EPA)
   
a. Provide personnel and equipment to support hazardous materials assessment and response in coordination with DEQ as well as the United States Coast Guard (USCG).

3. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
   
a. Provide response resources at the request of the SERT Leader.

b. Provide financial support for damages to property.

c. Educate State and local officials to inform of the recovery assistance available and how to apply for it.

d. Monitor recovery process to ensure the timely delivery of eligible assistance and compliance with the law and regulations.

e. Provide immediate and critical storm information for decision making through the Hurricane Liaison Team (HLT).

4. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

   NATIONAL HURRICANE CENTER (NHC)
   
a. Issue advisories on the location, strength and movement of tropical storms or hurricanes.

b. Provide track and intensity guidance on tropical cyclones up to 120 hours in advance.

c. Provide detailed storm surge inundation information and maps for the coastline.

d. Issue tropical storm and hurricane watches and warnings, as well as storm surge watches and warnings.

   NATIONAL WEATHER SERVICE (NWS)
   
a. Provide detailed forecast information, such as wind speed and direction, rainfall amount, etc., for locations across the State.
b. Issue watches and warnings associated with effects from the tropical cyclone such as winds, floods, tornadoes, etc.

c. Participate in conference calls to provide situational awareness and forecast updates.

d. Coordinate with the Southeast River Forecast Center to provide forecasts of riverine flooding.

WEATHER PREDICTION CENTER (WPC)

a. Provide rainfall total forecasts up to 7 days in advance.

b. Outline areas that are likely to experience rainfall that will exceed flash flood guidance up to 3 days in advance.

c. Issue Mesoscale Precipitation Discussions outlining where flooding rains may occur during the next several hours.

5. UNITED STATES COAST GUARD (USCG)

a. Provide personnel and equipment to support hazardous materials assessment and response.

b. Provide search and rescue air assets.

IV. CONCEPT OF OPERATIONS

A. GENERAL

When an event is expected to have limited impacts, the State EOC will remain at a partial activation with only key SERT agencies. Upon a greater threat to the State, all SERT agencies will report to the EOC for a full-scale activation. NCEM Branch Offices become Regional Coordination Centers (RCCs) which serve as a control center for the distribution of information and resources in the RCC’s area.

These RCCs are staffed by various agencies and local emergency managers which are most likely coming from a Branch Office that is not expected to receive direct impacts. They may also be staffed with members from Incident Management Teams (IMTs) if the NCEM Operations Section Chief and/or RCC Incident Commander sees fit.
HURREVAC provides a graphical plot of the National Hurricane Center Forecast Advisory to assist government officials in making various evacuation decisions.

If not obtained through HURREVAC, information on tropical cyclone intensity, forecast track, wind speed and direction, as well as storm surge inundation information will be accessed through the National Hurricane Center website. Coordination and communication with the National Hurricane Center will be accomplished via phone or video call and will be arranged by the FEMA Hurricane Liaison Team.

The National Weather Service will be used as the official source of weather information. The NWS offices provide guidance to emergency managers through briefings, conference calls, and webinars to achieve consistency between the forecast and emergency management response.

B. RESPONSE ACTIONS

The change in activation levels will be highly dependent upon the observed threat and expected impact. The following are general guidelines that may support a change in activation level. For information on staffing and general responses associated with an activation level, please refer to the North Carolina Emergency Operations Basic Plan.

1. PRE-LANDFALL

   a. **Level 4 Activation**: If the NHC begins issuing advisories on a tropical storm or depression that does not pose an immediate threat but may impact the State, the SERT Leader may elevate the activation to Level 4. A public information dissemination plan begins at this level. SERT agencies will be directed to prepare the State EOC if needed.

   b. **Level 3 Activation**: If the NHC is issuing advisories and the system is becoming more of a threat, (approximately 3-6 days or 800-1000 miles out), the SERT Leader may elevate the activation to Level 3. Depending on the threat level, partial or full EOC activation may begin. Risk Counties, the SERT Leader, and the Operations Section Chief should consider activation of the Coastal Region Evacuation and Sheltering Guide (CRES-SOG). State EOC staff will be responsible for preparing and delivering briefings for key State officials. Should the SERT Leader see fit, Incident Management Teams (IMTs) will be sent to counties and RCCs to assist with planning. SERT assets will consider relocation and prestaging of key resources and personnel near the disaster area.
At this activation level the State EOC will be responsible for publishing situation reports and incident actions plans for the next 24-hour operational period. The State EOC will use conference calls as the primary mechanism for coordinating State emergency management officials with other State agencies and local governments. The SERT Leader will determine a schedule to place these calls, or they may be managed at the NCEM Field Branch level/RCC. For more information on the role of the SERT Leader and others in the conference call, please refer EOC SOG.

The calls will focus on creating action plans for oceanfront counties and communities as well as counties along predefined evacuation corridors. More specifically, calls will include the following:

1. County EOC activation
2. State of Emergency declarations
3. Public information news releases
4. Evacuation route traffic control points and staffing responsibilities
5. Evacuation order issuance
6. Shelter locations and support needs
7. Modified evacuation routes
8. Variable message board placement
9. Ferry operations
10. Identification of unmet needs

In most cases, local government officials will be ultimately be responsible for actual implementation of the action plans.

Viability of the action plan will be determined through consulting between the SERT Leader, the Secretary of Public Safety and the Governor. The SERT Leader may determine that an action plan may need improvement, in which case the plan will be revised under the joint coordination of the State EOC, the county team leader, the RCC Incident Commander, and the SERT Leader. County and Branch Offices are also responsible for providing regular operational plan updates to State EOC. The updates should address the current status of the operation plan and its action strategies. The State EOC staff is responsible for providing these updates to the SERT Leader.

Since communication with neighboring States is vital, the SERT Leader will host an interstate information conference call with the Virginia Department of Emergency Management (VDEM) and the South Carolina Emergency Management Division (SCEMD).
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c. **Level 2 Activation:** Once the threat to North Carolina is imminent (e.g. A Tropical Storm/Hurricane watch or warning has been issued for NC and Coastal Waters), the SERT Leader may elevate the State EOC to Activation Level 2 and proceed to fully activate the SERT.

At this stage, coastal counties are recommended to initiate voluntary and/or mandatory evacuations of their populations based on projected storm surge, wind, and flood threats. Upon a gubernatorial declaration of a State of Emergency, the SERT Leader or the Operations Section Chief have the authority to activate the CRES-SOG should the request not already been made by any Risk County. This activation will be delegated to the RCCs for the coordination of risk-host county shelter and evacuation activities and resource support.

The SERT Leader will prepare a State of Disaster Proclamation for the Governor as well as a request for Federal disaster assistance. The SERT Leader is also responsible for directing the assembly of supplies and equipment to support the RCCs and counties in preparation for deployment. Additionally, the SERT Leader will request co-location of a Federal Coordinating Officer (FCO) and an Incident Management Assistance Team (IMAT). If the threat warrants, FEMA staff will arrive at the EOC prior to landfall, and the SERT Leader will elevate the State EOC to Activation Level 1.

2. **POST-LANDFALL**

A hurricane or tropical storm has hit the coast, made landfall and tracked into North Carolina, or a nearby State has been hit and is requesting mutual aid. The SERT director will direct the State EOC to Activation Level 1.

a. The Branch Office(s)/RCCs will begin to evaluate the disaster impact and establish priorities related to life, property and the environment at risk. The Field Branch Manager/RCC Incident Commander will coordinate the establishment of priorities with the SERT Leader and/or the Operations Section Chief to ensure consistency between the State EOC and the Branch Offices(s). The State EOC should prepare to receive additional staff from FEMA, the Army Corps of Engineers, and other Federal and volunteer agencies. At the direction of the Operations Section Chief, the State EOC staff assigns inventory and dispatches resources to the Branch Office(s) in support of response activities.

b. Once weather conditions allow, the Civil Air Patrol ARTs and Risk Management will begin an aerial reconnaissance of the disaster area
as soon as the weather conditions allow. ARTs will coordinate their efforts with the FEMA. The State EOC determines priorities for immediate assistance using damage reports from the counties and ART information.

c. If State resources are overwhelmed and additional assets are needed, mutual aid agreements between neighboring States will be implemented. This will be largely dependent on the disaster effect on the neighboring States. Some mutual aid agreements may be implemented prior to landfall, if the threat warrants.

d. When the SERT Leader determines that immediate needs are met, the State EOC and RCCs will demobilize reestablishing as a Branch Office. The Joint Field Office (JFO) manages all long-term recovery actions and operates until all priority recovery activities are accomplished.

C. RECOVERY ACTIONS

1. INITIAL

a. If State resources are overwhelmed and additional recovery assets are needed, mutual aid agreements between neighboring States will be implemented. This will be largely dependent on the disasters effect on the neighboring States.

b. Initial recovery efforts will begin once tropical cyclone conditions have subsided and it is deemed safe to venture outside.

c. The JFO coordinates State and Federal recovery actions and programs that support the overall recovery process. These may include Public Assistance, Individual Assistance, and Hazard Mitigation grants.

2. CONTINUING

a. Many recovery efforts may not be started until conditions improve, sometimes weeks after the tropical cyclone has passed. Ongoing recovery efforts will include, but are not limited to:

- Clearing debris and making any temporary repairs to roadways to ensure access to affected areas
- Restoring utilities in affected areas
- Continuing to perform flood control measures in flooded areas
- Continuing to operate shelters and move supplies as needed to support those affected by the hurricane
V. REFERENCES

A. Chapter 166A of the North Carolina General Statutes, North Carolina Emergency Management Act, as amended

B. Chapter 130A of the North Carolina General Statutes, Public Health

C. The Coastal Region Evacuation and Shelter Standing Operating Guide

D. State Medical Support Sheltering Plan