

**SEVERE WINTER WEATHER OPERATIONS PLAN**

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**I. INTRODUCTION****A. PURPOSE**

This appendix describes the coordinating actions taken by the State Emergency Response Team (SERT) when severe winter weather threatens or affects North Carolina.

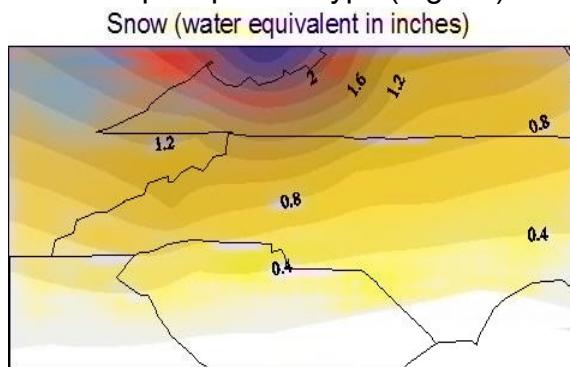
**B. SCOPE**

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 the geographic regions (Mountains, Piedmont and Coastal Plain), North Carolina experiences a myriad of precipitation types (rain, freezing rain, sleet, and snow) during a winter weather event.

The mountain region of North Carolina is often more prone to winter weather than any other region in the state. In this region, snow is typically the most dominant precipitation type (Fig. 1a). Valley areas typically receive 10-20" of



**Figure 1a:** Average liquid equivalent of snow per season. The Mountains receive the most snowfall. In the Piedmont and Coastal Plain, the highest snowfall totals are to the northwest, while the southeastern Coastal Plain of NC experiences the least amount of snowfall per season.  
(North Carolina State Climate Office)

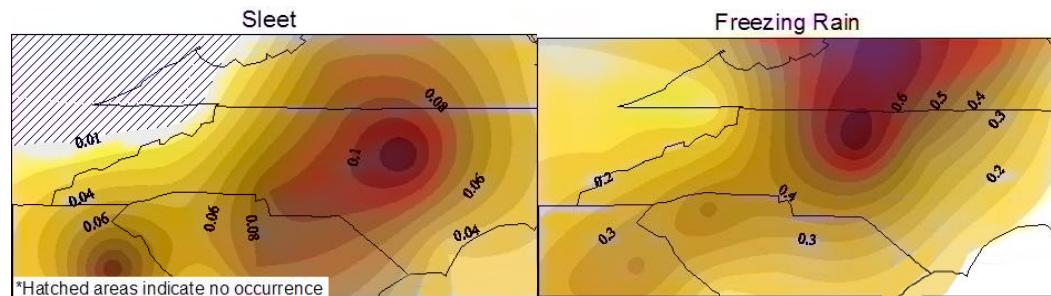
snowfall per season, while higher elevations on western facing slopes may receive 50-75". The Piedmont is the second most favored region for snowfall, averaging 5-10" of snow a year. The Coastal Plain is the least accustomed to winter weather with 5" or less of snowfall per season, often with several years passing where no measurable snow falls. The Piedmont and Coastal Plain are the most likely areas to experience sleet and freezing rain (Fig. 1b/1c).

Freezing rain, sleet and ice accumulations can cause problems across North Carolina. Ice accumulation of  $\frac{1}{4}$ " is considered significant and will occur every few years. Less commonly, catastrophic accumulations of freezing rain

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occur ( $\frac{1}{2}''$  -  $\frac{3}{4}''$ +) which result in significant damage to trees, powerlines and infrastructure. While rare, large accumulations of sleet ( $>1''$ ) are possible.



**Figure 1b (left), 1c (right):** Average liquid equivalent of freezing rain and sleet per season. While the Mountains and Coastal Plain typically experience sleet and freezing rain, the most prone area to those precipitation types is the Piedmont. (North Carolina State Climate Office)

Wintry precipitation is not the only hazard that a winter storm can bring to the state. During Nor'easters, strong winds occur along the coastline and contribute to coastal flooding. While rare, high winds and blowing snow in the mountains can create blizzard conditions, causing travel to be difficult if not impossible. Brutally cold temperatures may occur during and after a winter storm, making frostbite or hypothermia a concern for anyone outdoors or without heat.

## B. ASSUMPTIONS

1. Significant accumulations of winter weather will make travel difficult and dangerous. Ramps and bridges will be the most susceptible to icing.
2. Activation of this appendix may not occur during a typical winter weather event in the mountains; however, an equivalent event in the Piedmont or Coastal Plain may require activation.
3. Blowing snow will create visibilities near zero and may accumulate into drifts which could block roadways.
4. Brutally cold temperatures combined with strong winds will make hypothermia a danger to anyone outside.
5. Snow and ice accumulations will cause power outages for several days. Extensive damage to trees and powerlines may result.
6. Roadways may be blocked by debris and extensive clearing work may be required.

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7. Disruption of electricity for extended periods of time may affect water and sewer treatment plants, potentially making water unpotable without boiling after the storm.
8. Road closures in coastal areas may occur due to coastal flooding from high winds.
9. The NC Department of Transportation Division of Highways will follow their snow clearing policy for state-maintained bridges and highways.
10. Emergency transportation of resources may require permits, licenses, or exemptions.
11. Less-impactful winter storms may only require 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 and coordinate state and federal response and recovery activities.

**B. SUPPORTING STATE AGENCIES**

**1. NC DEPARTMENT OF AGRICULTURE & 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 to the agriculture sector to the Agriculture Incident Management Team (AgIMT) and the SERT.

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- c. 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.
- d. Provide guidance for the safety and sheltering of companion animals.
- e. Provide general and technical assistance to industries, partners, and other entities or persons within the scope and mission of NCDA&CS and the food and agriculture response.
- f. Promote and implement actions and strategies that maintain consumer confidence for food and agriculture health and security.

**EMERGENCY PROGRAMS DIVISION**

- a. Activate the AgIMT to manage and coordinate the overall food and agriculture response from the department, partner and affiliate organizations, and agriculture stakeholders.
- b. Collect and retain disaster facts, loss records, response information and other impact data to the agriculture sector from reliable sources.
- c. Develop recovery strategies and reports and serve as NCDA&CS lead for recovery.
- d. Provide a SERT Liaison for the food and agriculture response to the Human Services Branch.

**NORTH CAROLINA FOREST SERVICE (NCFS)**

- a. Provide chainsaw crews to aid in road clearance.
- b. Provide air and land transportation for responders when access to the incident is limited.
- c. Organize emergency feeding for responders.
- d. Support operations by acting as Field Observers, Line Locators or guides in forest areas.

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### **2. NC DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ)**

#### **DIVISION OF MARINE FISHERIES (DMF)**

##### **NORTH CAROLINA MARINE PATROL**

- a. Render law enforcement assistance.
- b. Provide land, sea, and air transportation.
- c. Provide aircraft and crew for surveillance/reconnaissance.
- d. Provide watercraft and crews to support enforcement of USCG-initiated restrictions on waterway use.

#### **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.

### **3. NC WILDLIFE RESOURCES COMMISSION (NCWRC)**

#### **LAW ENFORCEMENT DIVISION**

- a. Render law enforcement assistance.
- b. Provide air, water, and land transportation.
- c. Act as liaison between the SERT and interested environmental and conservation groups.

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### **4. NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES (NCDNCR)**

#### **DIVISION OF PARKS AND RECREATION (NC STATE PARKS)**

- 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 the SERT Leader of same.
- f. Provide a liaison to the 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.

### **5. 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; provide consultation and maintain communication with deployed public health nurses.
- b. Coordinate release of health and safety guidance and recommendations within affected communities i.e. use of generators and carbon monoxide poisoning, avoid contaminated water, etc.
- c. Monitor health of shelter populations for potential infectious disease outbreaks and provide mitigation recommendations where appropriate.

#### **DIVISION OF SOCIAL SERVICES (DSS)**

- a. Coordinate with mass care support agencies to support local sheltering operations.

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- b. Obtain personnel rosters, sheltering listings, and number of shelter managers from county departments of social services responding in affected jurisdictions.
- c. Provide technical assistance, when requested, to county departments of social services in organizing resources to provide food and water requirements for shelter population.
- d. Provide technical assistance, when requested, to county departments of social services in organizing transportation of food from identified warehouses to mass care feeding sites.
- e. Track and report the status of shelter operations.
- f. Coordinate with partners to answer questions from county departments of social services about accessibility in shelters.
- g. Coordinate all requests for spoken language and American Sign Language interpreters.

### **DIVISION OF AGING AND ADULT SERVICES (DAAS)**

- a. Promote the exchange of technical and statistical information relevant to needs and outcomes of older adults and adults with access and functional needs from NCEM to area agencies on aging and county health and human services departments.
- b. Collaborate with human services agencies to assist counties in meeting the needs of individuals needing functional support sheltering services.
- c. Collaborate with ESF-8, DHSR, and DPH for individuals needing medical support sheltering services.

### **DIVISION OF MENTAL HEALTH, DEVELOPMENTAL DISABILITIES AND SUBSTANCE USE SERVICES (MHDDSS)**

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

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### **DIVISION OF HEALTH SERVICE REGULATION (DHSR)**

#### **NORTH CAROLINA OFFICE OF EMERGENCY MEDICAL SERVICES (NCOEMS)**

- 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, pharmaceuticals, and assets.
- c. Assist in the development of local capabilities for the coordination of all healthcare services needed for triage, treatment, transportation, tracking, and evacuation of the affected population with medical concerns.
- d. Establish and maintain the cooperation of the various state medical and related professional organizations in coordinating the shifting of healthcare service resources from unaffected areas to areas of need.
- e. Coordinate with the SERT Military Support Branch to arrange for medical support from military installations.
- f. Coordinate the healthcare services for state-operated shelters by implementing the Healthcare Services in Shelters annex.

#### **6. 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 for damage assessments.

#### **7. NC DEPARTMENT OF TRANSPORTATION (NCDOT)**

##### **DIVISION OF HIGHWAYS (DOH)**

- a. Monitor and report on road conditions.
- b. Coordinate with NCSHP on immediate tow activation.

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- c. Coordinate mission assignments with NCEM and NCNG for hot spot team deployment.
- d. Erect and maintain signs, lights, barricades, or other traffic control devices as deemed appropriate to maintain or control traffic along the affected state-maintained or detour routes.
- e. Conduct anti-icing and de-icing operations across the state based on forecasted weather, traffic, and road conditions with the primary responsibility to clear interstates and four-lane divided primary routes essential for interstate and regional traffic movement.
- f. Incident Management Assistance Patrol (IMAP) to support quick clearance of incidents and immediately towing disabled or abandoned vehicles so they are not creating hazards for emergency responders or impeding snow and ice removal efforts.

### 8. NC DEPARTMENT OF PUBLIC SAFETY (NCDPS)

#### NORTH CAROLINA NATIONAL GUARD (NCNG)

- a. Assist with debris clearance from roadways.
- b. Provide shelter support as needed.
- c. Provide transportation assets to assist NCSHP, DOT, and local agencies in road clearance as well as to transport resources.
- d. Provide emergency personnel, support fire, rescue and emergency medical response.

### 9. NC STATE HIGHWAY PATROL (NCSHP)

- a. Coordinate control measures and isolation of the impacted area as needed.
- b. Regulate motor vehicle traffic where indicated.
- c. Provide communications support.
- d. Assist with movement of resources in coordination with other state partners, as needed.

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### **10. 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. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)**

##### **NATIONAL WEATHER SERVICE (NWS)**

- a. Provide detailed forecast information such as temperature, snowfall and freezing rain accumulations, etc. for locations across the state.
- b. Issue watches and warnings associated with the effects of a winter storm including winter storm warning, winter storm watch, winter weather advisory, etc.
- c. Participate in conference calls to provide situational awareness and forecast updates.

##### **WEATHER PREDICTION CENTER (WPC)**

- a. Provide potential winter storms impacts via Winter Storm Severity Index (WSSI) and Probabilistic Winter Storm Severity Index (WSSI-P).
- b. Outline areas that are most likely to receive impacts from any wintry precipitation via Winter Precipitation Guidance.

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### **IV. CONCEPT OF OPERATIONS**

#### **A. GENERAL**

When an incident is expected to have limited impacts, the State EOC may elevate from Normal Operations to an Enhanced Watch with NCEM or SERT Functional Leads meeting daily. NCEM or SERT Functional Leads will notify SERT partners of the potential of severe winter weather. Upon a greater threat to the state, necessary SERT agencies will report to the State EOC for a SERT activation.

#### **B. RESPONSE ACTIONS**

##### **1. INITIAL**

The change from daily operations to an Enhanced Watch and/or to a SERT Activation of the State EOC is 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, please refer to the NCEOP Basic Plan.

The SERT Leader may decide to elevate the State EOC to an Enhanced Watch if:

- a. There is the threat of significant accumulation of snow, sleet, or ice within 3-7 days;
- b. A Winter Weather Advisory has been issued for minor accumulation of snow, sleet, or ice;
- c. A Nor'easter could bring coastal impacts; or
- d. If an extended period of very cold temperatures is possible.

During an Enhanced Watch, NCEM or SERT Functional Leads will notify SERT agency representatives of the potential winter weather hazard threats and possible SERT Activation of the State EOC. The SERT Leader may decide to elevate the State EOC to a SERT Activation if:

- a. Confidence is increasing that significant accumulation of snow, sleet or ice is expected;
- b. Major traffic problems, power outages or shelter openings are expected or occurring;

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- c. A Nor'easter has impacted the state causing flooding, road closures and damages to structures; or
- d. Numerous state resources have been requested.

During a SERT Activation, all necessary SERT agencies will be activated in the State EOC and RCC(s). Movement of supplies before and after the storm will be directed by the SERT Leader and the Logistics Section. Shelters will be opened in the affected region, as necessary. If needed, the Deputy General Counsel may assist the NC Governor's Office in drafting a State of Emergency Proclamation to be forwarded to the Governor for signature.

## 2. CONTINUING

If state resources are overwhelmed and additional assets are needed, mutual aid agreements between neighboring states may be employed. This will be largely dependent on the disaster's effect to the neighboring state. As conditions improve, ongoing efforts will include, but are not limited to:

- Plowing of roadways by DOT to remove snow, sleet and ice accumulations;
- Treating of problem areas with salt, sand and brine;
- Restoration of electricity and other utilities if they were lost; and
- Removal of debris from roadways.

In the event of a major ice storm, there will likely be widespread and extensive damage to trees, powerlines and possibly structures. In this case, it may be weeks after the snow and ice accumulations melt before normal operations resume. Ongoing efforts will include, but are not limited to:

- Continued utility restoration; and
- Repairs to buildings or infrastructure that may have been damaged by ice accumulations.

## V. REFERENCES

- A. Chapter 166A of the North Carolina General Statutes, North Carolina Emergency Management Act, as amended.
- B. Winter Storm Hotspot Concept of Operations