



UNIVERSITY *of* NEW HAMPSHIRE

**Hurricane and Severe Weather
Emergency Action Plan
March 2023 Update**

Revision History

Date	Revision description	Facility Representative
April 10, 2006	Updated Plan	Brad Manning
Dec 20, 2018	Updated Plan to include Severe Weather	Ronald P. O'Keefe
March 2023	Update UEG & EOC language and NWS recommendations	Ronald P. O'Keefe

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I. Introduction

In accordance with the requirements of the Occupational Safety and Health Administration and the campus Emergency Operations Plan (EOP), UNH has developed this Emergency Action Plan (EAP) for hurricanes and severe weather.

The hurricane and severe weather EAP is designed to provide planning information and procedures prior to and after a hurricane or severe weather event. This EAP is designed to work in conjunction with the UNH Emergency Operations Plan (EOP) and specific site Emergency Action Plans for evacuation and shelter-in-place procedures.

II. Definitions

Severe Weather Warning	An alert to cover a wide array of deteriorating conditions
Winter Storm Watch	A Winter Storm Watch is issued when there is the potential for significant and hazardous winter weather within 48 hours. It does not mean that significant and hazardous winter weather will occur...it only means it is possible.
Winter Storm Warning	A Winter Storm Warning is issued when a significant combination of hazardous winter weather is occurring or imminent. Significant and hazardous winter weather is defined as a combination of; 1) 6 inches or more of snow/sleet within a 12-hour period or 9 inches or more of snow/sleet within a 24-hour period AND/OR 2) Enough ice accumulation to cause minor damage to trees or power lines. AND/OR 3) a life threatening or damaging combination of snow and/or ice accumulation with wind
Blizzard Warning	A Blizzard Warning means that the following conditions are occurring or expected within the next 12 to 36 hours. 1) Snow and/or blowing snow reducing visibility to 1/4 mile or less for 3 hours or longer AND 2) Sustained winds of 35 mph or greater or frequent gusts to 35 mph or greater. There is no temperature requirement that must be met to achieve blizzard conditions.
Ice Storm Warning	¼ inch or more of mean radial ice accumulation. Ice accumulation in all directions.
Severe Thunderstorm/Tornado Watch	Local conditions favor the potential for severe thunderstorm and/or tornado development over the next 3-9 hours.
Severe Thunderstorm Warning	A severe thunderstorm by definition is a thunderstorm that produces one inch hail or larger in diameter and/or winds equal or

	exceed 58 miles an hour (damaging winds).
Tornado Warning	A tornado is a violently rotating column of air, pendant from a cumuliform cloud or underneath a cumuliform cloud, and often (but not always) visible as a funnel cloud.
Hurricane Season	June 1through November 30* *NOAA National Hurricane Center
Hurricane Watch	The first notification by the National Weather Service that a hurricane is a potential threat to a geographic region of the United States. Landfall is uncertain and broad geographic areas are alerted. It is normally given 36 hours before the storm is expected to strike.
Hurricane Warning	Notification by the National Weather Service, normally 24 hours before the storms is expected to strike; more accurate landfall is predicted, with narrower geographic boundaries.
Hurricane Shelters	Areas of refuge to be used in the event of a hurricane should be a substantial building with limited glass.
Tropical Storm	A tropical cyclone that has maximum sustained surface winds ranging from 39-73 mph. Can cause flooding and wind damage.

III. Hurricane Categories

Hurricanes are rated into five categories (Saffir/Simpson Hurricane Scale). They are characterized by their sustained winds with Category 1 being the least severe and Category 5 being the most severe. The following scale was developed to categorize hurricanes:

- **Category 1- Winds 74-95 mph (64-82 kt)** no real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery and falling trees. Also, potential for coastal flooding and minor pier damage. 1-3 foot storm surge.
- **Category 2- Winds 96-110 mph (83-95 kt)** some roofing material, door and window damage. Considerable damage to vegetation, mobile homes, etc. Flooding damages piers and small craft in unprotected moorings may break their moorings. 6-8 foot storm surge.
- **Category 3- Winds 111-129 mph (96-113 kt)** some structural damage to small residences and utility buildings, with a minor amount of failures. Mobile homes are destroyed. Flooding near the coast destroys smaller structures with larger structures damaged by floating debris. Terrain may be flooded well inland. 9-12 foot storm surge.
- **Category 4- Winds 130-156 mph (114-135 kt)** more extensive failures with some complete roof structure failure on small residences. Major erosion of beach areas. Terrain may be flooded well inland. 13-18 foot storm surge.
- **Category 5- Winds >157 mph (135 kt)** complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required. >18 foot storm surge.

**During any strong tropical storm or hurricane, significant tree and vegetation damage is expected to occur. This will lead to extensive power outages after the storm.

IV. Shelters

If unable to leave your location, shelter in place at the below sites. When occupying a shelter location, stay away from windows and use interior rooms or interior fire rated stairwells.

Durham Campus buildings that may be used as shelters during severe weather include:

- Whittemore Center/Hamel Recreational Sports Facility
- Memorial Union Building
- Field House

UNH Manchester Shelter areas

- Rooms on second (main) floor of building (interior rooms preferred)

UNH School of Law

- Room 204

V. Severe Weather Preparedness

UNH has established emergency plans including an overall Emergency Operations Plan (EOP) and Emergency Action Plans (EAP) covering specific buildings and/or campuses. The UNH site specific EAP's also cover building evacuation, shelter-in-place, and other specific plans to prepare for and respond to emergencies. This Hurricane/Severe Weather EAP has been developed to work in conjunction with the EOP and site specific EAPs, with specific procedures that are necessary when the National Weather Service has indicated a Hurricane or Severe Weather Watch.

VI. Suspension of Services/Closing of Campus/Notification

The respective campus leadership in consultation with the UEG, the UNH Associate Vice President of Public Safety/Risk Management with consultation from the UNH Director of Emergency Management and National Weather Service severe weather threat projections will make the decision to close the campus.

All instructions such as canceling classes, closing of buildings, releasing of employees, special instructions and the relocation of students will be found in the following areas:

- Email- Via UNH ALERT System
- Phone/Text Message- Via UNH ALERT System
- Social Media
- UNH Web Site
- News Media (Internal & External)
- **Sign up for UNH ALERTS <http://alert.unh.edu>**

Students in University dormitories should notify the Department of Housing and Residential Life

if they plan to evacuate from campus. This notification will assist with the accountability and planning efforts.

72 Hours before Weather Event

- University Emergency Group to review current conditions and discuss general plans and readiness.
- Review Emergency Operations Plan, Integrated Contingency Plan, and Emergency Action Plans.
- Monitoring weather related media sources including but not limited to the National Weather Service, NOAA, FEMA, NH HSEM and NHBOEM.
- Determine available supplies of food, water and fuel.
- Check grounds and remove dead limbs, clean up loose debris and begin moving all loose equipment and materials.
- Make sure the UNH Police Department, Facilities Management, Hospitality Services and others have current telephone numbers for support responders such as water suppliers, emergency generator suppliers, fuel suppliers, food suppliers and others as needed. UNH Police and Office of Emergency Management will coordinate appropriate actions for USNH office, UNHM Facilities, UNH Law School.
- Hospitality Services will review inventory and ensure it can provide food and water for all students and essential staff for at least a 72 hour duration. UNHM and UNH School of Law will do so as appropriate.
- Jackson Estuarine Lab, Coastal Marine Lab, and Shoals Marine Lab monitor category classification of hurricane and review hurricane surge inundation maps. Check grounds and remove dead limbs, clean up loose debris, prop weakly rooted trees and begin moving all loose equipment and materials. Identify alternate space to move critical equipment, chemicals and supplies that could be damaged from possible storm surge flooding. Consider boarding of windows depending on conditions and the directional approach of the storm. Consult Emergency Management and Facilities Management for additional assistance.
- Shoals Marine Lab discuss evacuation process with UNH Police and Emergency Management.
- Make sure cellular telephones are fully charged.
- Make sure all storm drains are clear.
- Verify stock of sandbags and sand
- Verify stock of plastic sheeting
- Verify battery stock

48 Hours before Weather Event

- University Emergency Group monitors conditions and recommends actions to the President.
- Facilities Management initiates procedures to protect buildings at risk as identified in the Town of Durham/UNH Hazard Mitigation Plan. Procedures may include providing

sandbags and securing the building. USNH office, UNHM Facilities, UNH Law School staff will do the same.

- Libraries and the Art Gallery determines preparation for priority collections and exhibits.
- The University Information Line (603-862-0000) and University Homepage (www.unh.edu) and Emergency Webpage (www.unh.edu/emergency) should begin to provide Hurricane/Severe Weather plans and instructions.
- Ensure that athletic equipment, outdoor research equipment, trash and recyclable receptacles, benches and all other loose items that may become projectiles in high winds are appropriately secured.
- Ensure that contractors working on campus secure all equipment and materials from their site which may become projectiles in high winds.
- Make sure all essential vehicles are fully fueled, stocked and inspected.
- Turn off unnecessary lighting and appliances, secure windows, doors and shutters, locking when appropriate.
- Make sure all storm response equipment is inspected and ready for operation. This includes but is not limited to chainsaws, blowers, water pumps, tractors and portable generators.
- Jackson Estuarine Lab and Coastal Marine Lab continue to monitor category classification of hurricane and review hurricane surge inundation maps. Review procedures to secure fleet of boats and research vessels.
- Shoals Marine Lab initiates evacuation procedures.
- Housing and Residential Life begin notification to students regarding evacuation procedures, Shelter-in-Place locations and other details. UNHM, UNH School of Law communicates to all personnel and students evacuation procedures and other details/instructions as received from the UEG, UNH Security, and local emergency response agencies.
- Monitoring weather related media sources including but not limited to the National Weather Service, NOAA, FEMA, NH HSEM and NHBOEM. Attend any state level weather coordination calls.

36 Hours before Weather Event or 750 miles for Hurricane on tracking map

- Based on the category classification of the hurricane, the Senior Management Group and the University Emergency Group make decision for the evacuation of all students, faculty and non-essential staff and prepare to initiate Shelter-in-Place procedures.
- All University related functions are to be cancelled including classes, sporting events, lectures, and other functions if warranted (given conditions and warnings).
- News Bureau notifies the appropriate media of the UNH Hurricane Preparedness Plans.
- University departments initiate any specific departmental shut down procedures and begin evacuation of faculty and staff.
- Departments should back up computer data at this time by following University guidelines. For essential data that may be necessary during or immediately after the storm, contact Information Technology (862-4242) for specific recommendations.
- Unplug all office equipment including computers and store off the floor.

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- Protect books, valuables and equipment by covering with plastic sheeting.
- Close windows, lower all blinds/shades, close slats and draw curtains.
- Remove personal items that may become damaged since they are not covered by University Insurance.
- Research staff shall begin preparations of laboratory facilities by completing experiments, backing up computer data, storing materials and securing rooms.
- Research staff will begin to secure hazardous materials, including chemicals, biological agents and radioactive material.
- Animal Care staff will assess the needs of the animals and prepare for limited staffing until the storm has passed.
- Close non-essential offices and departments at this time.
- Jackson Estuarine Lab, Coastal Marine Lab initiate evacuation procedures.
- Monitoring weather related media sources including but not limited to the National Weather Service, NOAA, FEMA, NH HSEM and NHBOEM. Attend any state level weather coordination calls.

24 Hours before Weather Event or 500 miles as noted on Hurricane tracking map

- Evacuate buildings at risk as identified in the Town of Durham/UNH Hazard Mitigation Plan. Consider the shutdown of utilities in these buildings.
- Evacuate University Center @ UNHM, UNH Law sites.
- Facilities Management considers particular operational issues for the Central Heating and Power Plant, which will depend on storm specific information and other information.
- Facilities Management refuels all vehicles and continues securing equipment, assessing buildings and protecting properties from storm conditions.
- UNH Police helps verify that all non-essential personnel have evacuated the campus and unoccupied buildings have been secured.
- UNH Police/Emergency Management will ready the Emergency Operations Center.
- Student Life will communicate with students that they should plan to stay on campus if they have not already left.
- Consider reducing electrical load to capacity of Co-Gen plant and disconnecting from Eversource.
- Monitoring weather related media sources including but not limited to the National Weather Service, NOAA, FEMA, NH HSEM and NHBOEM. Attend any state level weather coordination calls

During Weather Event

- Open the Emergency Operations Center either partial or full depending on storm severity.
- It is essential that all remaining residents stay indoors during the storm for maximum protection, residents should report to their designated shelter.
- Residents should follow the instructions of University officials including UNH Police, Housing and Residential Life and the Durham Fire Department.
- In the event of power failure during the height of a hurricane, there will be no elevator

service. Do not attempt to travel between floors using elevators. First Aid and/or food service will be made available whenever the storm passes or when power is restored. Do not use candles during power outages due to the increased fire hazard.

- Do not attempt to open windows or doors to see what is happening outside.
- Report all accidents, injuries, broken windows or excessive water to the UNH Facilities Support Center at 862-1437.
- Telephone calls should be made only in case of emergency since non-emergency calls can overload the phone systems.

VII. Activation of the EOC and UEG

Under the UNH Emergency Operations Plan (EOP) when a level 4 or 5 emergency has been declared, the UNH Chief of Police/ AVP for Public Safety and Risk Management or his/her designee shall immediately notify members of the UEG to report to the designated EOC location.

Phased EOC Opening

Certain incidents may not require the full opening of the EOC. In these instances any ESF group that are needed to support the incident will be notified and will be instructed where and when to arrive and what the incident is. Additional information may be presented if available.

Virtual SMG-UEG-EOC Operations

There may be instances where a virtual opening of the EOC is advised. If this occurs, UEG members will be invited to participate via a virtual meeting platform such as Zoom or Microsoft Teams.

VIII. Hurricane/Severe Weather Procedures

Facilities Management hurricane procedures:

- All essential personnel report to supervisors for team assignments.
- Director of Operations should obtain a block of Purchase Order numbers or initiate other process to ensure that services of outside contractors can begin immediately after storm. Facilities will track all work and reconcile with USNH Purchasing when that office resumes business. UNHM Facilities will do the same from UNHM Business Office.
- Make final checks of roofs for loose debris. Clear roof drains.
- Open air vents leading to roofs to equalize pressure during storm.
- Consider taping windows adjacent to Shelter-In-Place locations to prevent personal injury from shattered glass. Consider boarding of windows for more

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vulnerable buildings depending on conditions such as the directional approach of the storm.

- Issue plastic sheeting and other protective materials as requested and deemed appropriate.

UNH Police Procedures:

- UNH Police personnel reports to Operations Captain for assignments.
- Begin inspection of campus and help with evacuation of non-essential personnel.
- Secure unoccupied buildings if building evacuation occurs.
- Check status of the Child Study and Development Center on campus.

UNH Continuing Education Summer Session and Youth Camp Procedures:

- Reviews status of programs and plans for camp attendees.
- Consider changing plans with incoming camps.

Student Preparation Procedures:

- Off-campus students should prepare some snack items and water as part of their preparations. Hospitality Services will have food and water at the Dining Halls for students and essential staff.
- Each student should provide his or her own flashlight to be used during a power failure. Do not use candles or other flame type lighting **under any circumstances**.
- Students who have cars on campus should set the emergency brake, close all windows and leave in the designated parking area until after the storm. All private and UNH vehicles should be parked away from trees.
- Students who have access to bathtubs should clean the tub and fill it halfway with water. If the water supply is cut off, the water in the tub may be used for flushing toilets or for washing. Do not drink this water.
- When emergency shelter is provided, students should bring the following items to their temporary assigned living area:
 - ✓ Bedding and pillow
 - ✓ One small bag with clothing, etc...
 - ✓ Needed medications, glasses, etc...
 - ✓ Non-perishable food items
 - ✓ Small toiletry bag

IX. Resumption of Service/Recovery

Following the lifting of the SEVERE WEATHER WARNING status, essential staff in Facilities Management and UNH Police will assess and advise the University Emergency Group and Senior

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Management Group which buildings and facilities can be used safely for classes and other purposes. Recommendations for repair work or building closings will also be made.

The President, upon recommendations from the UEG/CEG, will issue necessary directives and instructions concerning the resumption of classes and the use of University buildings and facilities.

Facilities Management and UNH Police will include the following as priorities following the storm:

- Conduct a campus wide damage assessment.
- Ensure access to Health and Wellness, Emergency Shelters and the University Emergency Operation Center.
- Assist Durham Public Works in clearing roads to allow the movement of Emergency Vehicles including EMS, Fire and Police. UNHM & UNH Law Facilities will clear UNH property as appropriate.
- Stage water pickups and prepare emergency supplies for rapid distribution.
- Check roof drains to ensure that none are clogged when wind conditions permit.
- Clear storm drains and catch basins
- Inspect roofs, doors and exteriors of buildings for security and loose material.
- Secure campus buildings from unauthorized access and looting.

The Department of Housing and Residential Life will assist with relocating students back to residence halls. Deans will be available to support students during the process of reopening the University. Information will be communicated through direct emails, the UNH website and local radio and television stations. UNHM will communicate reopening steps to personnel and students. UNH Security will work with Manchester and Concord Police and Fire Departments to coordinate appropriate activities.

UNH Storm Information Line- (603)-862-0000