

Upshur County Emergency Operations Plan Weather Emergencies Annex	
Weather Emergencies	Functional ANNEX M
Related Federal ESF #'s ESF # 2: Communications ESF # 5: Emergency Management ESF # 6: Mass Care Housing and Human Services ESF # 8: Public Health and Medical Services	Vulnerability Moderate

I. Introduction

Weather phenomenon is the cause of most natural disaster declarations. This annex will identify plan elements that should be referenced to prevent, prepare for, respond and recover from weather emergency events.

II. Flash Flooding

A. Situation:

1. Flash Flooding occurs when a large volume of rain falls over the same geographic area in a relatively short amount of time. The ensuing run off from higher to lower elevations can overflow streams and flood roadways and homes.
2. Risk to the county is moderate, with higher risk present in certain areas.
3. Flash flooding has historically caused damage in the region sufficient to cause:
 - a. Disaster declaration by the governor and/or the President of the United States.
 - b. Evacuation and permanent damage to residences.

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- c. Damage to places of business interrupting the ability to conduct work.
- d. Damage to roadways sufficient to render them impassible.
- e. Utility infrastructure outages from flood damage.
- f. Eventual river flooding.

B. Prevention:

- 1. Remove debris from streams, creeks and storm drains.
- 2. Improve drainage.
- 3. Introduce better flood warning systems.

C. Preparation:

- 1. The National Weather Service initiates warning procedures for weather events when the potential exists for such an event to create an emergency or disaster.
- 2. Elements of [Functional Annex C – Public Warning](#) can expedite and enhance early warning measures.
- 3. The Emergency Management Director will consult the Flood Plain Coordinator and appropriate mapping of flood prone areas to identify critical infrastructure and potential HAZMAT that might be susceptible to compromise due to flooding.

D. Response:

- 1. In the event that flooding extends beyond the “nuisance” level, threaten life and property, or 911 calls for service due to flooding threaten to overwhelm the 911 center, the Emergency Operations Center may be activated to coordinate response and recovery efforts.
- 2. Mutual aid agreements between fire departments allow water rescue crews to respond to assist other jurisdictions with water rescue operations.

3. The Emergency Operations Center shall document damage reports, including those received from the National Weather Service.

E. Recovery:

Short-term Recovery

Though the recovery process can be conceptualized as beginning with the cessation of life-saving efforts, actions to promote the short-term recovery process should be conducted concurrently with response operations. Short-term recovery is better characterized by its focus on restoring the most services, infrastructure, and other functions which are most vital to the community.

Long-term Recovery

Long-term recovery is characterized by its focus on restoring the community to normalcy. While many of the short-term processes may still be ongoing well into the long-term recovery period, they will begin to shift emphasis towards economic, structural, social, and economic sustainability.

Functional Annex's – include, but are not limited to:

1. [B – Communication](#)
2. [C – Notification and Warning](#)
3. [F – Sheltering and Mass Care](#)
4. [G – Health and Medical](#)
5. [J – Law Enforcement](#)
6. [K – Fire and Rescue](#)

III. River Flooding

A. Prevention:

1. Maintain waterways.
2. Clear debris and or blockages.
3. Clear waterway banks of debris that can become a blockage.

B. Preparation:

1. River flooding can be anticipated following significant flash flooding. Effect may be isolated.
2. The National Weather Service initiates warning procedures for weather events when the potential exists for such an event to create an emergency or disaster.
3. Elements of [Functional Annex C – Public Warning](#) can expedite and compliment early warning measures.
4. Evacuation of residents from areas prone to river flooding before flooding will reduce risk.
5. The Emergency Management Director will consult the Flood Plain Coordinator and river flood plain mapping to identify critical infrastructure and potential HAZMAT that might be susceptible to compromise due to flooding and coordinate any protective action.

C. Response:

1. In the event that flooding extends beyond the “nuisance” level, threatening life and property, or 911 calls for service due to flooding threaten to overwhelm the E 911 Emergency Communication Center, the Emergency Operations Center may be activated to coordinate response and recovery efforts.
2. Mutual aid agreements between fire departments allow water rescue crews to respond to assist our jurisdictions with boat water rescue operations.
3. Initial response efforts should concentrate on protection of life, then protection of critical infrastructure.

4. The Emergency Operations Center will document damage to flooding, collected from the public, response personnel and the National Weather Service.

D. Recovery:

Short-term Recovery

Though the recovery process can be conceptualized as beginning with the cessation of life-saving efforts, actions to promote the short-term recovery process should be conducted concurrently with response operations. Short-term recovery is better characterized by its focus on restoring the most services, infrastructure, and other functions which are most vital to the community.

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Functional Annex's – includes, but not limited to,

1. [B – Communication](#)
2. [C – Notification and Warning](#)
3. [D– Public Information](#)
4. [E – Evacuation](#)
5. [F – Sheltering and Mass Care](#)
6. [G – Health and Medical](#)
7. [I – Damage Assessment](#)

IV. Winter Storm

A. Situation:

1. Winter storms can result in heavy snowfall and/or ice accumulation, causing travel difficulties and utility infrastructure failure.
2. The risk for a winter storm that causes a state-of-emergency declaration is moderate.
3. Winter storms generally cause temporary problems lasting a few days.
4. Large accumulations of wet snow can cause roofs and buildings to collapse.
5. Flooding can be a secondary event caused by melting snow.

B. Prevention:

1. WVDOH and city governments maintain equipment and supplies sufficient to clear blocked and icy roads.
2. Utility companies generally maintain infrastructure rights of way, reducing risk of damage.

C. Preparation:

1. The National Weather Service initiates warning procedures for weather events when the potential exists for such an event to create an emergency or disaster.
2. Elements of [Functional Annex C](#) – Public Warning, can expedite and enhance early warning measures.
3. Winter storms are usually predicted days in advance by the National Weather Service, providing an opportunity to conduct Public Warning.
4. Agencies tasked with clearing roadways and maintaining utilities will staff-up in the face of a significant storm.

D. Response:

1. Response may be delayed due to roadway blockages or icing.
2. Sheltering of the public may become necessary due to power failures.

E. Recovery:

1. Necessary recovery efforts will be minimal unless complicated by flooding.

V. Tornado/Wind Storm**A. Situation:**

1. Tornadoes and microburst wind storms can strike any part of the metropolitan area.
2. Tornadoes and microburst wind storms can cause damage to trees, structures, utility infrastructure and public safety communications facilities.
3. According to the National Weather Service, microburst wind storms, or straight-line winds, can cause damage to the same extent as a tornado.
4. These events pose a significant life safety threat to the public.
5. Damage from these events will be limited to the path of the storm and not likely to affect the entire metropolitan area.
6. The abundance of manufactured housing utilized in the area poses vulnerability.
7. Tornadoes and wind storms can occur in any month, but most frequently during the spring and early summer months.
8. The National Weather Service possesses the technology to observe potential, in-progress tornadic storms by the use of Doppler radar.
9. Tornadoes and microburst storms can occur with little, or no warning.

10. These storms move quickly, passing a given point within minutes.

B. Prevention:

1. Since these storms cannot be prevented, public education creates awareness that dangerous storms can, and do, occur.
2. The National Weather Service conducts public awareness campaigns and weather spotter classes to educate the public.
3. Identification of critical infrastructure can provoke measures to protect those assets from damage.

C. Preparation:

1. The National Weather Service initiates warning procedures for weather events when the potential exists for such an event to create an emergency or disaster.
2. Elements of [Functional Annex C](#) – Public Warning, can expedite and enhance early warning measures.
3. Since these storms occur quickly and with little, or no, warning, utilization of all available public warning assets should be carefully considered.
4. Public safety response personnel will be kept informed as to the status of dangerous storms and will take measures to protect themselves when such measures become necessary.

D. Response:

1. The county should anticipate that the 911 center will be overwhelmed with radio traffic and calls from the public as the storm passes.
2. Response personnel will, as necessary, take steps to protect themselves from the storm.
3. Debris removal assets will be needed immediately following the storm to clear blocked roadways.

4. The EOC will document all damage to its jurisdiction, including that information received by the National Weather Service.

E. Recovery:

Short-term Recovery

Though the recovery process can be conceptualized as beginning with the cessation of life-saving efforts, actions to promote the short-term recovery process should be conducted concurrently with response operations. Short-term recovery is better characterized by its focus on restoring the most services, infrastructure, and other functions which are most vital to the community.

Long-term Recovery

Long-term recovery is characterized by its focus on restoring the community to normalcy. While many of the short-term processes may still be ongoing well into the long-term recovery period, they will begin to shift emphasis towards economic, structural, social, and economic sustainability.

VI. Extreme Heat

F. Situation:

1. Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.
2. Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children, and those who are sick or overweight are more likely to succumb to extreme heat.

F. Preparation:

1. Elements of [Functional Annex C](#) – Public Warning, can expedite and enhance early warning measures.

2. Install window air conditioners snugly; insulate if necessary.
3. Public safety response personnel will be kept informed as to the status of dangerous heat and will take measures to protect themselves when such measures become necessary.
4. The county should anticipate that the 911 center will be overwhelmed with radio traffic and calls from the public as the heat emergency increases.
5. Electric power may be susceptible to damage and, at the same time, be most essential for recovery from the effects of an extreme heat emergency.
6. Certain citizens will be vulnerable to heat exhaustion and heat stroke during heat emergencies.

G. Prevention:

Elderly persons, small children, chronically ill and individuals with physical disabilities/limitations. Included are also those persons on certain medications or drugs (especially tranquilizers and anticholinergics), and persons with weight and alcohol problems are particularly susceptible to heat reactions, especially during heat waves in areas where a moderate climate usually prevails.

1. **Slow Down.** Strenuous activities should be reduced, eliminated or rescheduled to the coolest time of the day. Individuals at risk should stay in the coolest available place not necessarily indoors.
2. **Dress for Summer.** Lightweight, light-colored clothing reflects heat and sunlight, and helps your body maintain normal temperatures.
3. **Drink plenty of water or other non- alcoholic beverages.** Your body needs water to keep cool. Drink plenty of fluids even if you don't feel thirsty. People who (1) have epilepsy or heart, kidney, or liver disease, (2) are on fluid restrictive diets or (3) have a problem with fluid retention should consult a physician before increasing their consumption of fluids.
4. **Do not take salt tablets unless specified by physician.** Persons on salt restrictive diets should consult a physician before increasing their salt intake.

5. **Spend more time in air-conditioned places.** Air conditioning in homes and other buildings markedly reduces the danger from the heat. If you cannot afford an air conditioner, spending some time each day (during hot weather) in an air-conditioned environment affords some protection.
6. **Do not get too much sun.** Sunburn makes the job of heat dissipation that much more difficult.
7. **HEAT STROKE IS A SEVERE MEDICAL EMERGENCY. SUMMON EMERGENCY MEDICAL ASSISTANCE OR GET THE VICTIM TO A HOSPITAL IMMEDIATELY. DELAY CAN BE FATAL.** (ex) person stops sweating completely, has a seizure or altered mental status. These are indicators of this event.

H. Response:

1. Elements of [Functional Annex C](#) – Public Warning, can expedite and enhance early warning measures.
2. The county should anticipate that the 911 center will be overwhelmed with radio traffic and calls from the public as the heat emergency increases.
3. Public safety response personnel will be kept informed as to the status of dangerous heat and will take measures to protect themselves when such measures become necessary.
4. During prolonged heat emergencies Upshur County Emergency Operations center will be activated with appropriate number of personnel.
5. During prolonged extreme heat emergencies, the Upshur County Office of Emergency Management will open cooling stations throughout the county.

I. Recovery:

- Recovery should be limited once the Heat Emergency has concluded.

VII. Extreme Cold

G. Situation:

1. One of the gravest dangers of winter weather is wind chill. The wind chill is based on the rate of heat loss from exposed skin by combined effects of wind and cold. As the wind increases, heat is carried away from the body at an accelerated rate, driving down the body temperature. Animals are also affected by wind chill.

J. Preparation:

1. Elements of [Functional Annex C](#) – Public Warning, can expedite and enhance early warning measures.
2. Limit the time outside on extremely cold days.
3. Stock emergency supplies (blankets, fire extinguisher, first aid kit, flashlight, battery powered radio, extra batteries, manual can opener), as well as several days' supply of canned/prepared foods, medications, and extra drinking water in case your pipes freeze.
4. Use care when heating your home with a fireplace, wood stove, or space heater, and make sure you have a functioning smoke detector and carbon monoxide detector.
5. During especially cold weather or a power outage, check daily on elderly neighbors and relatives who live alone.

K. Response:

1. Elements of [Functional Annex C](#) – Public Warning, can expedite and enhance early warning measures.
2. The county should anticipate that the 911 center will be overwhelmed with radio traffic and calls from the public as the extreme cold emergency increases.

3. Public safety response personnel will be kept informed as to the status of dangerous cold and will take measures to protect themselves when such measures become necessary.
4. During prolonged cold emergencies Upshur County Emergency Operations center will be activated with appropriate number of personnel.
5. During prolonged extreme cold emergencies, the Upshur County Office of Emergency Management will open warming stations throughout the county.
6. During prolonged cold emergencies the Upshur County Emergency Manager will coordinate with area Fire Departments to evacuate the elderly and handicap citizens affected to warming stations.

L. Recovery:

- Recovery should be limited once the extreme cold event has concluded.

Terms and Definitions

1. **Excessive Heat Outlook:** When the potential exists for an excessive heat event in the next 3 to 7 days. An outlook is used to indicate that a heat event may develop. It is intended to provide information to those who need considerable lead time to prepare for the event, such as public utilities, emergency management and public health.
2. **Excessive Heat Watch:** Conditions favorable for an excessive heat event to meet/exceed heat warning criteria in the next 12 to 48 hours.
3. **Heat Advisory:** Heat index of 105°F daytime and/or 80°F nighttime.
4. **Excessive Heat Warning:** Heat Index at least 115°F for 3 hours or more, with minimum nighttime heat index at or above 80°F or based on the heat health watch warning system.
5. **Winter Storm Outlook:** Issued prior to a Winter Storm Watch. The outlook is given when forecasters believe winter storm conditions are possible and are

usually issued 48 to 60 hours in advance of a winter storm. Tornadoes and microburst storms can occur with little, or no warning.

6. **Winter Storm Watch:** Alerts the public to the possibility of a blizzard, heavy snow, freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 36 hours before the beginning of a Winter Storm.
7. **Winter Storm Warning:** Issued when a combination of heavy snow, heavy freezing rain, or heavy sleet is expected. Winter Storm Warnings are usually issued six to 24 hours before the event is expected to begin.
8. **Freeze Watch:** Conditions are favorable for a freeze event to meet or exceed Freeze Warning criteria in the next 12 to 48 hours.
9. **Freeze Warning:** Any time minimum temperature is expected to be $\leq 28^{\circ}\text{F}$ for a minimum of two consecutive hours at two or more locations within the zone.
10. **Wind Chill Advisory:** Issued when wind chill temperatures are expected to be between 20 below and 34 degrees below zero.
11. **Wind Chill Warning:** Issued when wind chill temperatures are expected to be less than 34 degrees below zero.
12. **Flash flood Watch:** Issued when conditions are favorable for flash flooding it does not mean flash flooding will occur but it is possible.
13. **Flash Flood Warning:** Issued when flash flooding is occurring.
14. **Flood Watch:** Issued when conditions are favorable for flooding.
15. **Flood Warning:** Issued when flooding is imminent or occurring.
16. **River Flood Watch:** Issued when river flooding is possible at one or more forecast points along a river.
17. **River Flood Warning:** Issued when river flooding is occurring or imminent at one or more forecast points along a river.
18. **Wind Advisory:** Issued when the following conditions are expected, sustained winds of 31 to 39 mph for an hour or more or wind gusts of 46 to 57 mph for any duration.

19. **Extreme Wind Warning:** Issued for surface winds of 100 knots (115 MPH) or greater associated with non-convective, downslope, derecho (NOT associated with a tornado), or sustained hurricane winds are expected to occur within one hour.
20. **Severe Thunderstorm Watch:** Issued when severe thunderstorms are possible in and near the watch area. It does not mean that they will occur. It only means they are possible.
21. **Severe Thunderstorm Warning:** Issued when severe thunderstorms are possible in and near the watch area. It does not mean that they will occur. It only means they are possible.
22. **Tornado Watch:** Issued when severe thunderstorms and tornadoes are possible in and near the watch area. It does not mean that they will occur. It only means they are possible.
23. **Tornado Warning:** issued when a tornado is imminent. When a tornado warning is issued, seek safe shelter immediately.

H. REFERENCES

- National Weather Service
- Weather.gov
- FEMA.gov

