

Kanawha Putnam Emergency Management Plan Hazard Identification Annex	
<h1>Weather Emergencies</h1> <p>Revised December 2015; Reviewed Annually</p>	<h1>B01</h1>
<b>Risk</b>  Moderate to High	<b>Vulnerability</b>  Moderate

## I. Introduction

Weather phenomenon is the cause of most natural disaster declarations in the metropolitan area. This annex will estimate the risk associated with any weather event and identify plan elements that should be brought to bear to prevent, prepare for, respond and recover from weather emergency events.

## II. Flash Flooding

### A. Situation

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

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

## B. Prevention

1. Detailed in the Kanawha County Flood Mitigation Plan and the Putnam County Flood Mitigation Plan

## 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 A01 – Public Warning](#) can expedite and enhance early warning measures.
3. Fire departments maintain the necessary assets and trained personnel to conduct swift water rescue of stranded citizens.
4. The Emergency Management Director will consult the appropriate Flood Mitigation Plan 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, threatening life and property, or 911 calls for service due to flooding threaten to overwhelm the 911 center, the Emergency Operations Center will be activated to coordinate response and recovery efforts.
2. Mutual aid agreements between fire departments allow boat crews to respond to assist other jurisdictions with boat rescue operations.
3. The Emergency Operations Center shall document damage reports, including those received from the National Weather Service.

E. Primary Functional Plans – include, but are not limited to:

1. [A01 – Public Warning](#)
2. [A03 – Communication](#)
3. [A04 – Evacuation](#)
4. [A07 – Mass Care](#)
5. [A08 – Health and Medical](#)
6. [A12 – Special Needs Population](#)
7. [A15 – Resource Management](#)
8. [A21 – Search and Rescue](#)
9. [A24 – Recovery](#)

F. Support Functional Plans – include, but are not limited to:

1. [A02 – Emergency Public Information](#)
2. [A08 – Health & Medical/Psych Care](#)
3. [A14 – Law Enforcement/Security](#)

G. Recovery

1. [Refer to A24 – Recovery](#) and [A25 – Mitigation](#)

### III. River Flooding

#### A. Situation

1. Four rivers are located within the metropolitan area: the Kanawha, Elk, Coal and Poca Rivers.
2. The area includes one major river, the Kanawha, utilized for commercial navigation.
3. Risk on the Kanawha and Elk Rivers is low due to flood control dams upstream.
4. Risk on Poca and Coal Rivers is low due to limited vulnerabilities.
5. A dam failure affecting either the Kanawha or Elk Rivers would create a significant disaster in Kanawha County.
6. For more information, refer to Flood Mitigation Plans

#### B. Prevention

1. Refer to Flood Mitigation Plan

#### C. 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 A01 – Public Warning](#) can expedite and compliment early warning measures.
4. Fire departments maintain the necessary assets and trained personnel to conduct swift water rescue of stranded citizens.

5. Evacuation of residents from areas prone to river flooding will reduce risk.
6. The Emergency Management Director will consult the appropriate Flood Mitigation Plan to identify critical infrastructure and potential HAZMAT that might be susceptible to compromise due to flooding and coordinate any protective action.
7. For additional information, refer to Flood Mitigation Plan

#### D. 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 911 center, the Emergency Operations Center will be activated to coordinate response and recovery efforts.
2. Mutual aid agreements between fire departments allow boat crews to respond to assist other jurisdictions with boat 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.

#### E. Primary Functional Plans – includes, but not limited to,

1. [A01 – Public Warning](#)
2. [A03 – Communication](#)
3. [A04 – Evacuation](#)
4. [A07 – Mass Care](#)
5. [A12 – Special Needs Population](#)
6. [A15 – Resource Management](#)
7. [A21 – Search and Rescue](#)

8. [A24 – Recovery](#)

F. Support Functional Plans – includes, but not limited to,

1. [A02 – Emergency Public Information](#)

2. [A08 – Health & Medical/Psych Care](#)

3. [A14 – Law Enforcement/Security](#)

G. Recovery

1. Refer to [A24 – Recovery](#) and [A25 – Mitigation](#)

## 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 [\[Functional Annex A01 – Public Warning\]](#) 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.
5. The ESD will insure that communications facility generators are fueled and in working order.
6. The ESD will consider billeting arrangements for EOC staff.

#### 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.
2. See [\[A24 – Recovery\]](#).

## 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 so-called 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 metropolitan area poses vulnerability.
7. The last tornado to affect Putnam and Kanawha Counties was in June, 1999, when a supercell created a confirmed F1 tornado. This storm caused minor damage to some structures and utility infrastructure.
8. Tornadoes and wind storms can occur in any month, but most frequently during the spring and early summer months.
9. The National Weather Service possesses the technology to observe potential, in-progress tornadic storms by the use of Doppler radar.
10. Tornadoes and microburst storms can occur with little, or no warning.
11. 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 [\[Functional Annex A01 – Public Warning\]](#) 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 by the ESD.
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 ESD 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

1. See [\[A-24 – Recovery\]](#)