

Montgomery County Fire and Rescue Service

Flooding Pre-Deployment Guidelines

November 18, 2017

1.0 PURPOSE:

This document should be utilized to determine the criteria, staffing and resources required in pre-deploying water rescue assets needed to address expected flooding conditions resulting from any type of weather incident. This guide should be utilized in conjunction with communications with the DOC, Special Operations Assistant or Battalion Chief and the SWRT Team Leader.

It must be recognized that weather forecasting for the COG area is an imprecise science at best. This document is meant to be used as a guideline to be applied IF the decision to pre-deploy has been made. It is not meant to be taken as the sole resource for determining WHEN to pre-deploy.

2.0 APPLICABILITY:

All command level and SWRT personnel

3.0 DEFINITIONS:

3.1 Advisory: Highlights special weather conditions that are less serious than a warning. They are for events that may cause significant inconvenience, and if caution is not exercised, could lead to situations that may threaten life and/or property.

3.2 Flash Flood: Flooding that begins within 6 hours, and often within 3 hours, of the onset of heavy rainfall (or other cause).

The intensity of the rainfall, the location and distribution of the rainfall, the land use and topography, vegetation types and growth/density, soil type, and soil water-content all determine just how quickly the Flash Flooding may occur, and influence where it may occur.

Urban Areas are also prone to flooding in short time-spans and, sometimes, rainfall (from the same storm) over an

Flooding Pre-Deployment Guidelines

November 18, 2017

Page 2 of 5

urban area will cause flooding faster and more-severe than in the suburbs or countryside. The impervious surfaces in the urban areas do not allow water to infiltrate the ground, and the water runs off to the low spots very quickly.

3.3 Flood Warning: A release by the NWS to inform the public of flooding along larger streams in which there is a serious threat to life or property. A flood warning will usually contain river stage (level) forecasts.

3.4 Flood Watch: Issued to inform the public and cooperating agencies that current and developing hydro meteorological conditions are such that there is a threat of flooding, but the occurrence is neither certain nor imminent.

3.5 Warning: A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.

3.6 Watch: A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so those who need to set their plans in motion can do so.

4.0 PROCEDURE:

4.1 Objective Criteria for Consideration of Initiating Pre-Deployment:

- National Weather Service issues a **FLOOD WARNING**
- Predicted rainfall of **OVER 1" per hour**
- Predicted rainfall of **OVER ¾" – 1" per hour** for more than 1 hour

4.2 Additional Considerations for Initiating Pre-Deployment:

- Size of Storm
- Path, Speed and Expected Duration of Storm

Flooding Pre-Deployment Guidelines

November 18, 2017

Page 3 of 5

- River and Stream Levels (pre-Storm)
- Ground Saturation (pre-Storm)

****Note:** On average streams crest, approximately 1 hour after rainfall ceases**

4.3 Deployment Levels:

Level 1: May be implemented when NWS issues a Flood Warning with <2 hours notice or event is not expected to be Countywide.

1. Dedicate Company 30 for flooding operations
2. Pre-deploy to area(s) expected to be affected by storm.

****Note:** At Level 1, SWRT resources deployed may be placed as a married pair or separate units.

Level 2: May be implemented when NWS issues a Flood Warning affecting the entire County.

1. Dedicate Company 10 and Company 30 for flooding operations.
2. Pre-deploy resources with the goal to maintain Countywide coverage.

****Note:** At Level 2 and above, SWRT resources deployed may be placed and respond as individual units if ECC is operating under Condition Red.

Level 3: May be implemented when NWS issues a Flood Warning with >2 hours notice for event lasting longer than 6 hours.

1. All actions of Level 2.
2. Recall/hire SWRT personnel to staff Operational Boats at Stations 25, 29 and 31. These assets will be staffed as SwiftWater capable.
3. Staff a dedicated Swift Water Duty Officer.

Level 4: May be implemented when NWS issues major Flood Warning lasting >24 hours.

1. All actions of Level 3
2. Recall/hire OT to staff all reserve boats to Operational or SwiftWater level capabilities based on personnel availability. (BT710C, BT730C, BT771, BT771B)

Flooding Pre-Deployment Guidelines

November 18, 2017

Page 4 of 5

3. Place all remaining Operational Level boats in service using on-duty personnel.

Operational Boats are housed at Fire Stations 4,14, 25, 29, 31 and 40 and can be staffed and deployed as needed

4.4 Deployment locations:

- Batt 1: FS2 & FS12
- Batt 2: FS10, FS26
- Batt 3: FS31 & FS32, PSTA
- Batt 4: FS4, FS18 & FS25
- Batt 5: FS14, FS22 & FS34

4.5 Additional Considerations for SWRT Pre-Deployment:

- Timeframe for recall/OT hiring and assembly of SWRT personnel
- Timeframe to pre-deploy SWRT resources
- Pre-deployment location of SWRT's

**Note: This is to highlight the fact that determining where to pre-deploy units, recall/OT hiring, personnel arriving, receiving instructions and then moving up to the determined pre-deployment location takes time measured in hours not minutes.

4.6 Staffing Requirements:

- SwiftWater Rescue Team (SWRT) = (2) SwiftWater Boats.
- SwiftWater Boat (minimum staffing) = (1) SWBC and (1) SWBO
- SwiftWater Boat (desired staffing) = (1) SWBC and (2) SWBO

5.0 RESOURCES:

5.1 Internet Resources:

- [AccuWeather Pro](#)
- [National Weather Service](#) - Baltimore/Washington – Local Weather
- [NWS Glossary](#): Link to NWS Glossary of Terms

Flooding Pre-Deployment Guidelines

November 18, 2017

Page 5 of 5

- [Potomac River Level @ Little Falls](#) – Obtain current Potomac River Level
- [Weather Bug](#) - Mobile App has robust Lightning Tracking and Warnings

5.2 Known Flooding Locations in Montgomery County:

- [Complete Listing](#) – alphabetical list for entire County
- [Battalion 1](#)
- [Battalion 2](#)
- [Battalion 3](#)
- [Battalion 4](#)
- [Battalion 5](#)

