

# VI. METEOROLOGICAL SUPPORT

The National Weather Service (NWS) and Henz Meteorological Services (HMS) will provide meteorological support to Arvada and Jefferson County. Following is the process by which NWS, HMS, Arvada and Jefferson County should coordinate, exchange information and gear up for potential flood situations:

- NWS and HMS conduct daily weather discussions as necessary to evaluate flood potentials. HMS will prepare daily heavy precipitation outlooks from April 15 through September 15. This product is available to all UDFCD Electronic Bulletin Board (EBB) users and may also be faxed to warning plan participants. When warranted, more detailed quantitative precipitation forecasts (QPF) and storm track predictions will be issued by HMS. Many NWS products are also available to EBB users including flood advisories, flash flood watches and flash flood warnings.
- When weather conditions are such that flash flood producing rains could develop, HMS will relay a MESSAGE 1 to Jefferson County Sheriff's Department Communications Center (JCC) by phone. JCC will forward the message by phone to Arvada and Jefferson County Emergency Management. A MESSAGE 1 that requires priority handling will be identified as a **RED FLAG** message. All RED FLAG messages affecting the Ralston Creek drainage basin will also be communicated directly to Arvada Police.
- NWS and HMS continue their weather discussion. If the flood potential increases one of the following actions will occur:
  - NWS will issue a Special Weather Statement through normal channels (NAWAS, weather wire, weather radio) and/or HMS will send a MESSAGE UPDATE to MESSAGE 1 (**RED FLAG** if warranted) to JCC; or
  - NWS will issue a Flash Flood Watch through normal channels (NAWAS, weather wire, weather radio) and HMS will send MESSAGE 2 to JCC; or
  - HMS will send a MESSAGE 2 to JCC indicating an increase in flood potential.

JCC will forward this message to Arvada Police, Arvada Fire Protection District, Fairmount Fire Protection District and Jefferson County Emergency Management. Arvada Police will be contacted directly by HMS when a RED FLAG message warrants immediate action on their part.

- Observers will be designated within each jurisdiction and consideration will be given toward activating the Arvada and Jefferson County EOCs.
- Regular coordination between NWS, HMS, JCC and Arvada will continue. Should the Arvada EOC be activated, HMS and NWS shall be notified immediately and regular coordination will include the EOC. HMS will re-direct communications to the Arvada EOC upon request by Arvada Police.
- When conditions warrant, NWS will issue a Flash Flood Warning through normal channels and HMS will send a MESSAGE 3 to JCC and Arvada Police or the EOC. HMS may issue a MESSAGE 3 prior to the issuance of a NWS warning if HMS feels that a life-threatening flood is imminent.
- Jefferson County, Arvada and fire districts will continue to monitor the situation and begin public dissemination of warnings when necessary. HMS will continue to send MESSAGE UPDATES as warranted.
- When the hazard has passed, HMS will send MESSAGE 4 to JCC and the Arvada EOC, if activated.

Throughout all of the above activities NWS and HMS will coordinate as necessary. It must be remembered that events may occur so rapidly that it may not be possible to carry out all of the above steps. Personnel on duty must be prepared for this possibility and must pick up the process as best they can.

The following page provides a brief description of each HMS message and their intended uses. Subsequent pages contain the standard message forms used by JCC and Arvada Police for documenting and relaying direct HMS communications. These message forms should be used to insure the rapid flow of information with minimum chance for error.

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## **URBAN DRAINAGE AND FLOOD CONTROL DISTRICT FLASH FLOOD PREDICTION PROGRAM (F2P2) MESSAGE FORMS**

The UDFCD F2P2 message forms on the following pages provide a fill-in-the-blank format for use by communications personnel. Descriptions of their intended uses are given below:

### **MESSAGE 1 (*Internal Alert*)**

This is an advisory message which is meant to inform key people that weather conditions are such that flood producing storms could develop later in the day. It will be issued by HMS after consultations with NWS. If HMS feels this weather advisory requires priority handling by the communications dispatcher, the message will be preceded with the statement: "THIS IS A RED FLAG MESSAGE."

### **MESSAGE 2 (*Flash Flood Watch*)**

This message indicates that a Flash Flood Watch has been issued by NWS and/or HMS feels the risk is high that a life-threatening flood may occur later in the day. HMS will add any additional information which is available. This message requires priority handling by the communications dispatcher.

### **MESSAGE 3 (*Flash Flood Warning*)**

This message indicates that a Flash Flood Warning has been issued by NWS and/or HMS feels that a life-threatening flood is imminent. Again, HMS will add any additional information which is available. This warning message requires priority handling by the communications dispatcher.

### **MESSAGE UPDATE**

This message will be used by HMS to update any of the previous messages, particularly in the event of a disagreement between HMS and NWS. For example, this message can be used to narrow a watch or warning area as more information becomes available or to provide more site specific data and direction during an event. If HMS feels this message requires priority handling by the communications dispatcher, the message will be preceded with the statement: "THIS IS A RED FLAG MESSAGE."

## MESSAGE 4 (*All Clear*)

This message cancels the flood potential status. This message is issued by HMS after consultation with NWS and other entities involved with direct HMS communications.

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## MESSAGE 1

*(Internal Alert)*

This is Henz Meteorological Services (HMS) meteorologist

*(name)*

Please prepare to fill in the blanks on UDFCD/F2P2 Form M-1 concerning the possibility of flooding later today.

We have determined that the potential for flooding exists for

—

from\_until\_.

Prime time for flooding is from\_until\_.

*(time) (time)*

The most likely areas to be impacted by flooding are *(check appropriate items)*:

Mountain Canyon Streams & Floodplains

Urban Streams & Floodplains

Urban Streets, Intersections & Low Lying Areas

Other (describe)

The potential risk to life and property is *(check appropriate item)*:

Low Moderate High

This message is not intended for public dissemination. Please pass this information along to affected emergency response organizations (police, fire, public works, etc.) within your area.

Also, please take appropriate actions to prepare for possible flooding.

Further information will be provided to you as it becomes available.

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## MESSAGE 2

*(Flash Flood Watch)*

This is Henz Meteorological Services (HMS) meteorologist

*(name)*

Please prepare to fill in the blanks on UDFCD/F2P2 Form M-2 concerning the threat of flash flooding later today.

Use message OPTION *(circle one)*: A B

OPTION A

The National Weather Service has issued a **Flash Flood Watch** for

—

—

—

, which

means that flash flooding is possible within the watch area.

This watch is valid from\_until\_.

*(time) (time)*

HMS concurs/disagrees *(circle one)* with the NWS watch and advises

—

OPTION B

HMS has determined that the possibility of a life-threatening flash flood exists for

—

—

—

from\_until\_.

*(time) (time)*

Please pass this information along to affected emergency response organizations (police, fire, public works, etc.) within your area.

Also, please take appropriate actions to prepare for possible flooding.

Further information will be provided to you as it becomes available.

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### MESSAGE 3

*(Flash Flood Warning)*

This is Henz Meteorological Services (HMS) meteorologist

*(name)*

Please prepare to fill in the blanks on UDFCD/F2P2 Form M-3 concerning an imminent flash flood.

Use message OPTION *(circle one)*: A B

OPTION A

The National Weather Service has issued a **Flash Flood Warning**

for

—

, which means that flash flooding is imminent or has been reported within the warning area.

This warning is valid from\_until\_.

*(time) (time)*

OPTION B

HMS has determined that an imminent danger of a life-threatening

flash flood exists for

—

—

—

from\_until\_.

*(time) (time)*

Please expedite this information to affected emergency response organizations (police, fire, public works, etc.) within your area.

Also, please take appropriate actions to deal with this flood threat and warn the public.

Further information will be provided to you as it becomes available.

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### MESSAGE UPDATE

This is Henz Meteorological Services(HMS) meteorologist

*(name)*

Please prepare to fill in the blanks on the UDFCD/F2P2 Form M-U concerning updated information on the threat of local flooding.

This is an update to Message(s)\_concerning possible flooding for\_.

HMS advises

Please pass this information along to the emergency response organizations you have previously notified.

Also, please take appropriate action in response to the current flood potential.

Further information will be provided to you as it becomes available.

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### MESSAGE 4

*(All Clear)*

This is Henz Meteorological Services(HMS) meteorologist

*(name)*

Please prepare to fill in the blanks on UDFCD/F2P2 Form M-4.

The potential for flooding in

has passed.

Message Number(s)\_are rescinded.

We will keep you advised of any changes.

Please pass this information along to the emergency response organizations you have previously notified.