



Why Impact-based Warnings?

- Every year the National Weather Service issues more than 4,000 flash flood warnings with a range of impacts on lives and livelihoods.
- Flash flood impacts are relatively broad and are difficult to define objectively as infrastructure, population and other factors of local environmental conditions vary across the country.
- Public perception is that the NWS over-alerts Flash Flood Warnings.

The Change

- The Impact-Based Warning format provides information on “hazard”, “source” and “impact”. It also aligns Flash Flood Warnings with other short-fused warning formats introduced in 2018.
- Allows for a better characterization of the flood threat and impact through the use of “Base”, “Considerable” and “Catastrophic” damage tags.

Outcome

The goal is to improve the public response to Flash Flood Warnings by

- Providing easily readable information
- Motivate proper response to warnings by better distinguishing situational urgency
- Communicate recommended actions/precautions more concisely
- Issue Wireless Emergency Alerts (WEA) on mobile devices only for flash flood events that require immediate life-saving action

A flash flood is flooding that occurs over a short time span, where water is observed in areas beyond its normal confines, especially over what is typically dry land.





Impact-based warnings contain hazard, source, impact information and additional damage threat tags. On the right is a sample impact-based warning.

Hazard, Source and Impact Information

Each Flash Flood Warning (FFW) will contain individual lines that clearly state hazard, source and impact information.



Tags

Tags will appear at the bottom of FFWs and in Flash Flood Statements (FFSs) which provide supplemental information on active FFWs.

The National Weather Service in the Quad Cities has issued a

* Flash Flood Warning for...
Northern Jackson County in east central Iowa...
Dubuque County in northeast Iowa...
This includes the city of Dubuque...
Jo Daviess County in northwest Illinois...
This includes the city of Galena...

* Until 415 AM CDT Thursday.

* At 707 PM CDT, local law reported flash flooding from a strong thunderstorm with very heavy rain over eastern Dubuque County and western Jo Daviess County. Rainfall rates of a half inch in 20 to 30 minutes have been observed.

HAZARD...Life-threatening flash flooding caused by heavy rain.

SOURCE...Law enforcement and observed rainfall.

IMPACT...Unusual and life threatening flash flooding of creeks and streams, urban areas, highways, streets and underpasses.

* Some locations that will experience flooding include...
Centralia, Warren, Scales Mound, Menominee, East Dubuque, Council Hill, Apple River, Sherrill, Sageville, Rickardsville, New Vienna, Luxemburg, Holy Cross, Dyersville, Durango, Bankston, Balltown and Asbury.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

This is an extremely dangerous and life-threatening situation. Do not attempt to travel unless you are fleeing an area subject to flooding.

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LAT...LON 4265 9073 4263 9070 4251 9063 4251 9003
4250 8993 4220 8992 4220 9030 4229 9067
4230 9112 4264 9112 4265 9091 4268 9088

FLASH FLOOD...OBSERVED
FLASH FLOOD DAMAGE THREAT...CONSIDERABLE
EXPECTED RAINFALL...1-2 INCHES PER HOUR

Flash Flood Damage Threat Tag	Explanation
"Base" (No tag)	Used most of the time, when flash flood impact damage is possible
CONSIDERABLE*	Use rarely, when there are indications flash flooding capable of unusual severity or impact is imminent or ongoing and urgent action is needed to protect lives and property.
CATASTROPHIC*+	Use exceedingly rarely, when a flash flood risk to life and catastrophic damage is occurring or is imminent, and floodwaters have risen or will rise to levels rarely if ever seen.
Flash Flooding Source Information Tag	
FLASH FLOOD... RADAR INDICATED	Evidence on radar and near storm environment is supportive, but no confirmation
FLASH FLOOD... OBSERVED	Flash flood impacts confirmed by trained spotters, law enforcement, media, other credible human observers, etc.
Flash Flooding Causative Event Tag	
EXPECTED RAINFALL... [###.## INCHES PER HOUR] [## INCHES IN ## MINUTES]	Use to identify rainfall rate leading to potential or observed flash flooding, including rain falling on a burn scar.
[DAM OR LEVEE] FAILURE... [IMMINENT OR OCCURRING]	Use to provide additional information about the status of the failing dam or levee, whether it is "imminent" or "occurring".

*Category utilized for a Wireless Emergency Alert (WEA)

+Catastrophic equates to a headline and additional language for a "Flash Flood Emergency".