

Example #3 – Combined Defined Area/Point-Based Flood Warning: Initial Issuance.

Heavy rainfall occurs over the Raccoon River basin in Iowa and the Des Moines WFO issues a flood warning product which combines a defined area flood warning for the entire basin with a six point-based flood warnings for each forecast point in the basin.

WGUS43 KDMX 091530
FLWDMX

Bulletin - Immediate Broadcast Requested
Flood Message
National Weather Service Des Moines, IA
1030 am CDT Wed May 9 2012

IAC001-009-025-027-049-073-077-079-121-151-153-161-100330-
/O.NEW.KDMX.FA.W.0011.120509T1530Z-120513T1500Z/
/00000.0.ER.000000T0000Z.000000T0000Z.000000T0000Z.OO/
1030 am EDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for rivers and small streams in...
The Raccoon River basin below the Sac County/Buena Vista County line downstream to the confluence with the Des Moines River in Des Moines This includes the North Raccoon, Middle Raccoon, South Raccoon, and Raccoon Rivers and their small stream tributaries in Greene County and portions of Polk, Dallas, Madison, Adair, Guthrie, Audubon, Carroll, Sac, Calhoun, Hamilton, and Pocahontas Counties in Iowa.
- * Until 10:00 am Sunday
- * At 10:30 am CDT, Weather Service radar and several ground reports indicated over 3 inches of rain had fallen over much of the upper Raccoon River basin, with 1-2 inches in lower parts of the basin closer to Des Moines. An additional 1 or 2 inches are likely throughout the day. As a result, high water levels can be expected in small streams until Thursday morning. These flood waters will work their way down the Raccoon River system, with the river falling below flood stage in the Des Moines area on Sunday morning.
- * Locations at high risk of flooding in small streams include Carroll, Lake City, Adaza, Beaver, Lanesboro, and Churdan.

A flood warning means that flooding is imminent or has been reported. If flooding is observed, act quickly. Do not stay in areas subject to flooding when water begins rising. Never drive cars, trucks or sport utility vehicles through flooded areas. The water may be too deep to allow for safe passage.

LAT...LON nnnn nnnn

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IAC073-100330-
/O.NEW.KDMX.FL.W.0010.1230509T2130Z-1230510T2130Z/
/EFWI4.2.ER.120509T2130Z.120510T0330Z.120510T2130Z.NO/
1030 am CDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for
The North Raccoon River near Jefferson.
- * Until Thursday afternoon.
- * At 9:00 am CDT Wednesday the stage was 15.0 feet...an increase of 7.0 feet since 9:00 am yesterday morning.
- * No flooding is occurring and moderate flooding is forecast.
- * Flood stage is 19.0 feet.
- * Forecast...the river will crest at 20.5 feet this evening.
- * Impact...at 19.0 feet, water floods low areas of the Raccoon River Bible Camp. Residents along the river have water entering into their yards. At 20.0 feet, the Raccoon River Bible Camp north of Scranton is affected. 3500 acres of agricultural land is flooded in Greene County. At 21.0 feet, buildings at the Raccoon River Bible Camp flood. Homes along the river may experience flooding.

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IAC049-100330-
/O.NEW.KDMX.FL.W.0011.1230510T0030Z-1230511T0030Z/
/EFWI4.2.ER.120510T0030Z.120510T0630Z.120511T0030Z.NO/
1030 am CDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for
The North Raccoon River near Perry.
- * Until Thursday afternoon.
- * At 9:00 am CDT Wednesday the stage was 12.0 feet...an increase of 7.0 feet since 9:00 am yesterday morning.
- * No flooding is occurring and moderate flooding is forecast.
- * Flood stage is 15.0 feet.
- * Forecast...the river will crest at 17.5 feet this evening.
- * Impact... at 15.0 feet, farmland begins to flood in the vicinity of Perry. At 16.0 feet, 180th Lane west of Minburn is affected by flood waters. At 16.5 feet, 125th Trail North of Dawson and West of P46 is affected. At 17.0 feet, water approaches the bottom of the U.S. 169 bridge on the north side of Adel. Farmland northeast of Adel begins to flood. At 18.0 feet, parts of U.S. 169 north of Adel are overtopped. Many rural roads are affected.

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IAC049-100330-
/O.NEW.KDMX.FL.W.0012.1230509T2130Z-1230510T2130Z/
/REDI4.1.ER.120509T2130Z.120510T0330Z.120510T2130Z.NO/
1030 am CDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for
The South Raccoon River near Redfield.
- * Until Thursday afternoon.
- * At 9:00 am CDT Wednesday the stage was 15.2 feet...an increase of 9.0 feet since 9:00 am yesterday morning.
- * No flooding is occurring and minor flooding is forecast.
- * Flood stage is 20.0 feet.
- * Forecast...the river will crest at 23.0 feet this evening.
- * Impact... at 20.0 feet, gravel roads on the west and south sides of Redfield are affected as well as Delta Circle Road in the vicinity of the gage site. At 24.0 feet, the power plant in Redfield is affected.

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IAC049-100330-

/O.NEW.KDMX.FL.W.0013.120510T1200Z-120513T0600Z/
/VNMI4.2.ER.120510T1200Z.120511T0000Z.120513T0600Z.NO/
1030 AM CDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for
The Raccoon River at Van Meter.
- * Until early Sunday morning
- * At 9:00 am CDT Wednesday the stage was 8.0 feet...an increase of 6.0 feet since 9:00 am yesterday morning.
- * No flooding is occurring and moderate flooding is forecast.
- * flood stage is 16.0 FEET.
- * Forecast...The river will rise above flood stage Thursday morning and crest at 19.3 feet Thursday evening.
- * Impact...At 15.0 feet, flooding begins in the sand and gravel quarries just west of Interstate 35. At 17.0 feet, secondary bridges are threatened along Highway 6 east of Adel. At 19.0 feet, flooding of several county roads occurs. At 20.0 feet, several buildings in Walnut Woods State Park are flooded. The road north of the gage site is overflowed.

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IAC053-100330-

/O.NEW.KDMX.FL.W.0014.120510T1800Z-120513T1200Z/
/DMWI4.2.ER.120510T1800Z.120511T0600Z.120513T1200Z.NO/
1030 AM CDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for
The Raccoon River at Des Moines Hwy 28.
- * Until Sunday morning.
- * At 9:00 am CDT Wednesday the stage was 19.7 feet...an increase of 2.0 feet since 9:00 am yesterday morning.
- * No flooding is occurring and moderate flooding is forecast.

- * Flood stage is 32.0 feet.
- * Forecast...The river will rise above flood stage Thursday afternoon and crest at 36.5 feet early Friday morning.
- * Impact...At 32.0 feet, the picnic areas at Raccoon River Park are affected. At 36.0 feet, the railroad tracks along Grand Ave. are overflowed.

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IAC153-100300-
 /O.NEW.KDMX.FL.W.0015.120510T2100Z-120513T1500Z/
 /DEMI4.2.ER.120510T2100Z.120511T0900Z.120513T1500Z.NO/
 1030 AM CDT Wed May 9 2012

FLOOD WARNING

The National Weather Service in Des Moines has issued a

- * Flood warning for
 The Raccoon River at Des Moines Fleur Drive.
- * Until Sunday morning.
- * At 9:00 am CDT Wednesday the stage was 4.0 feet...an increase of 0.2 feet since 9:00 am yesterday morning.
- * No flooding is occurring and moderate flooding is forecast.
- * Flood stage is 12.0 feet.
- * Forecast...The river will rise above flood stage Thursday afternoon and crest at 15.1 feet Friday morning.
- * Impact...At 12.0 feet, low areas of Water Works Park are affected. The storm gate is closed at 62nd Street and Railroad Avenue. At 12.5 feet, Valley Drive floods. It is barricaded from Park Ave. to SW 30th Street. At 13.5 feet, significant flooding over lower areas of water works park occurs. At 14.0 feet, Southwest 30th Street is flooded in the vicinity of Valley Drive. Much of Water Works Park is closed. At 15.0 feet, flooding occurs over much of Southwest 28th Street between Valley Drive and the railroad tracks. At 16.5 feet, SW 18th (Fleur Drive) south of Water Works buildings threatened. Above this stage, streamflow will begin to move through this area cutting off large meander bend in the stream channel and diverting increasing amounts of streamflow south of gage.

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Notes and Explanations:

- (1) Notice how the event ending date time for the defined area (first) segment is the same as the event ending date/time for the lowest point-based segment on the river system – Des Moines Fleur Drive. This indicates that the software formatting the defined area segment would have to obtain information from the database providing information for the lowest point-based segment to be included in the product.
- (2) There are no pairs of lat/lon coordinates in the defined area segment – it is assumed watch/warning/advisory areas will be defined through GIS data which is not visible in the text product. There could be two areas defined through GIS in the defined area segment – one for the entire area of the Raccoon River basin and the second for the main stem Raccoon River network. Follow-up products could shrink or eliminate the area covered by small stream flooding while keeping the GIS defined river network. Still later follow-up issuances could just have the lower reaches of the Raccoon River network specified through GIS in the defined area segment.
- (3) Lat/lon coordinates have never needed to be provided in point-based segments, since the forecast point location is defined through the NWSLI.