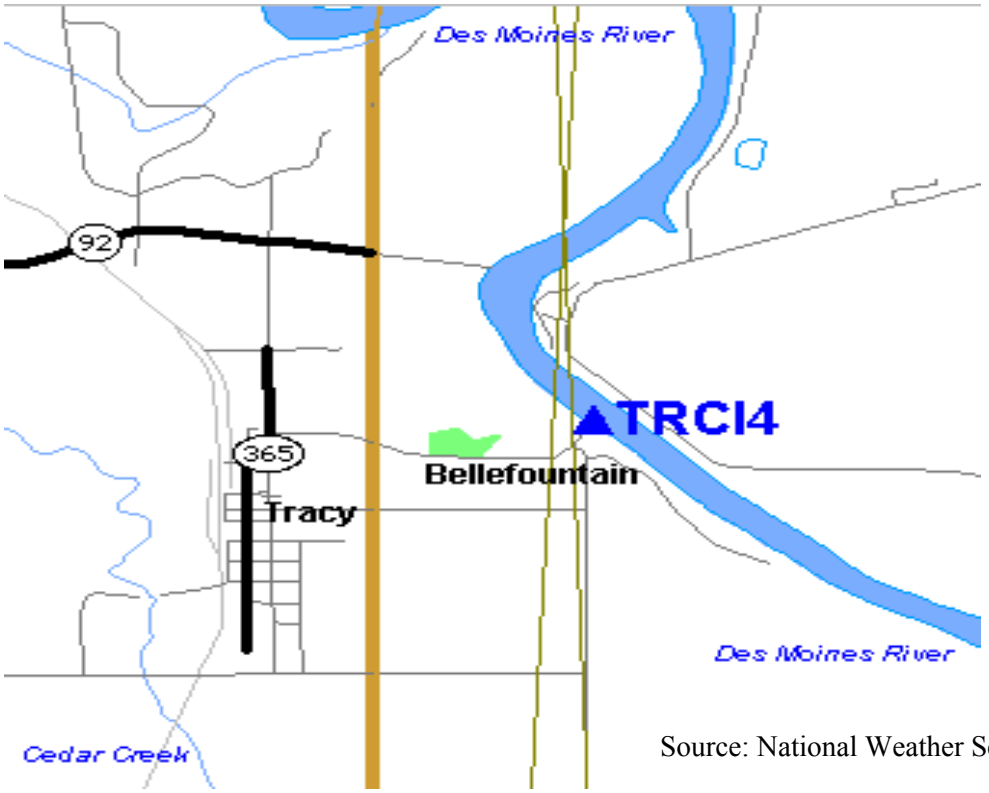
Attachment A
Advanced Hydrologic Prediction Services (AHPS)

Interactive map of forecast points

The National Weather Service has developed a real time flood forecasting system for Des Moines, Iowa.Flood Information for a given station can be obtained at any time by selecting any of the forecast points shown on an interactive map. A long term goal is to develop this system throughout the U.S

Source: National Weather Service

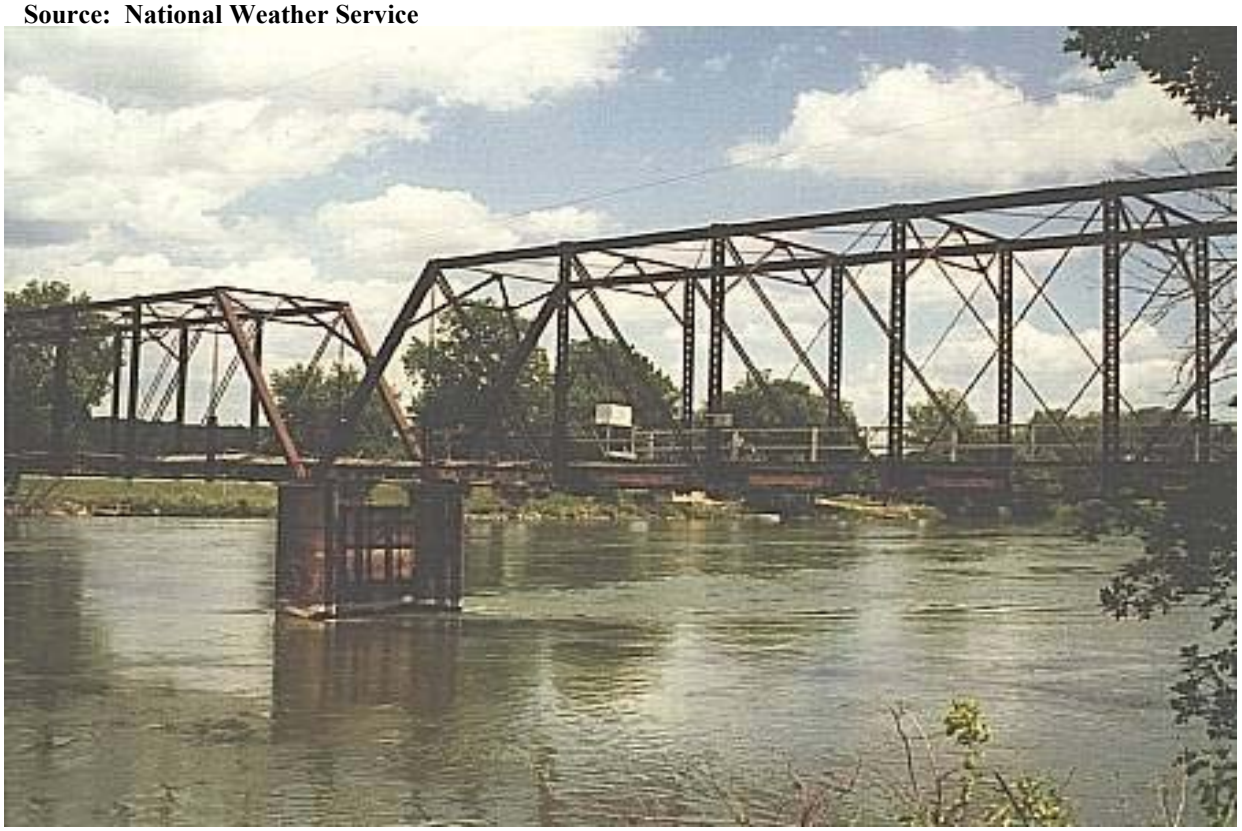
When a forecast point is selected, a map showing the site location can be accessed.



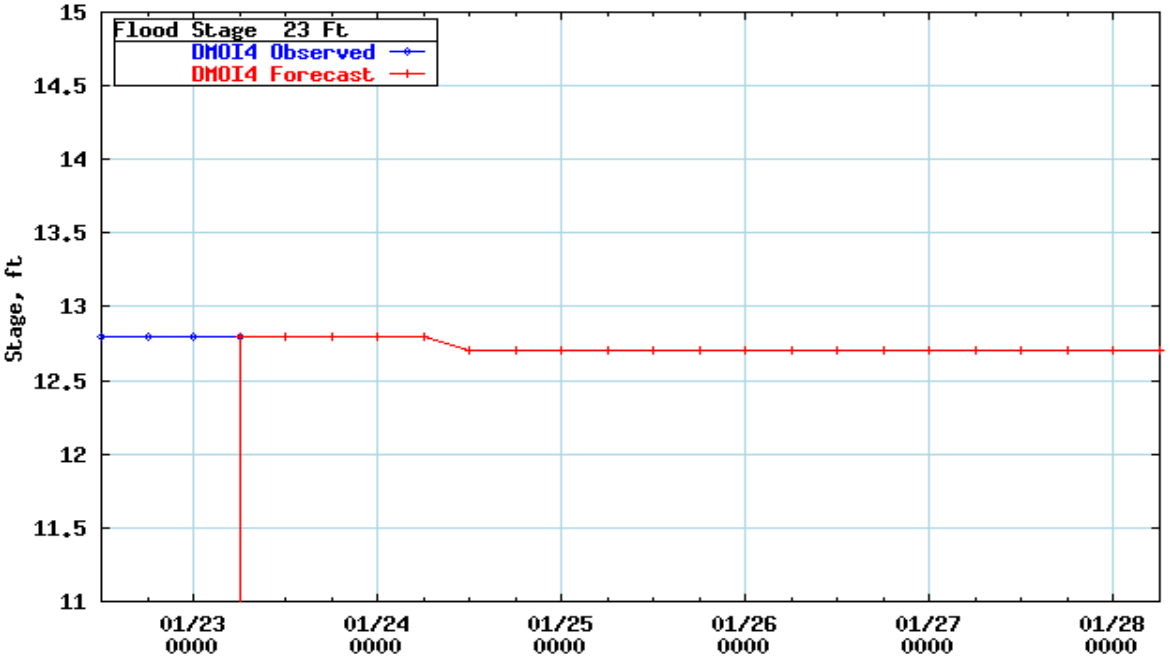
Source: National Weather Service

Pictures of the site can be accessed or a Web camera can be used to provide a real time picture of what is happening at the site.

Source: National Weather Service



Using the precipitation and stage data from the monitors, a runoff and flow routing model is used to generate a stage hydrograph for the next five days. This can be accessed electronically.

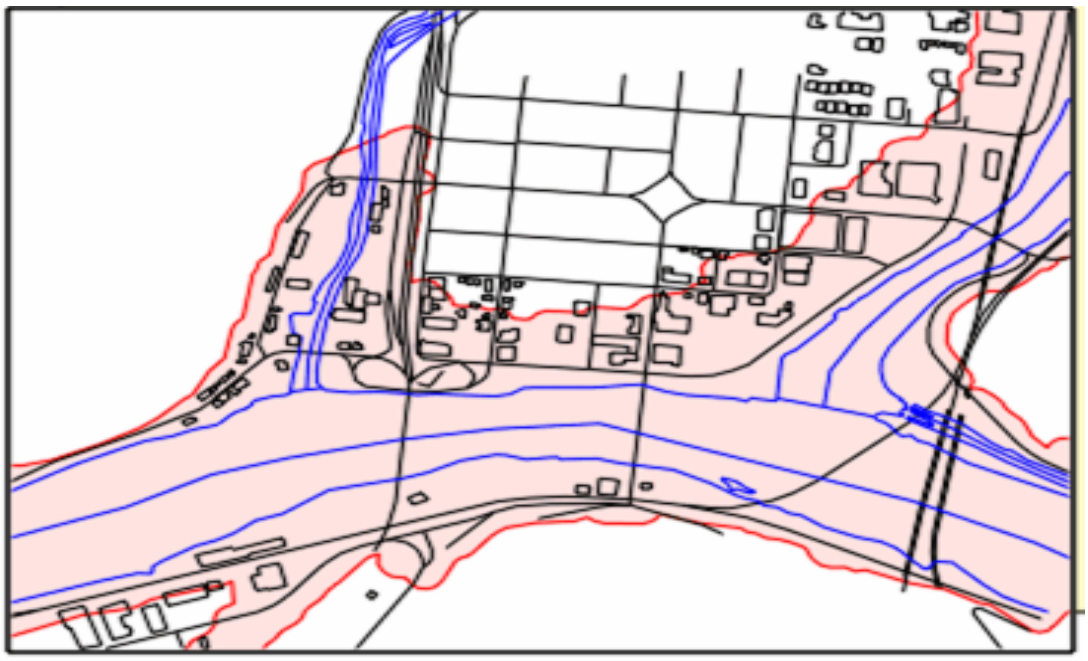


Source: National Weather Service

A table showing the meaning of different river stages can be accessed electronically.

Stage (Ft)	Condition
19.0	Storm sewers back up.
22.0	Minor residential flooding.
26.5	Euclid Ave. closed from 5th to 16th Street.
33.0	City levee overtopped.

Flood Stage Forecast Mapping

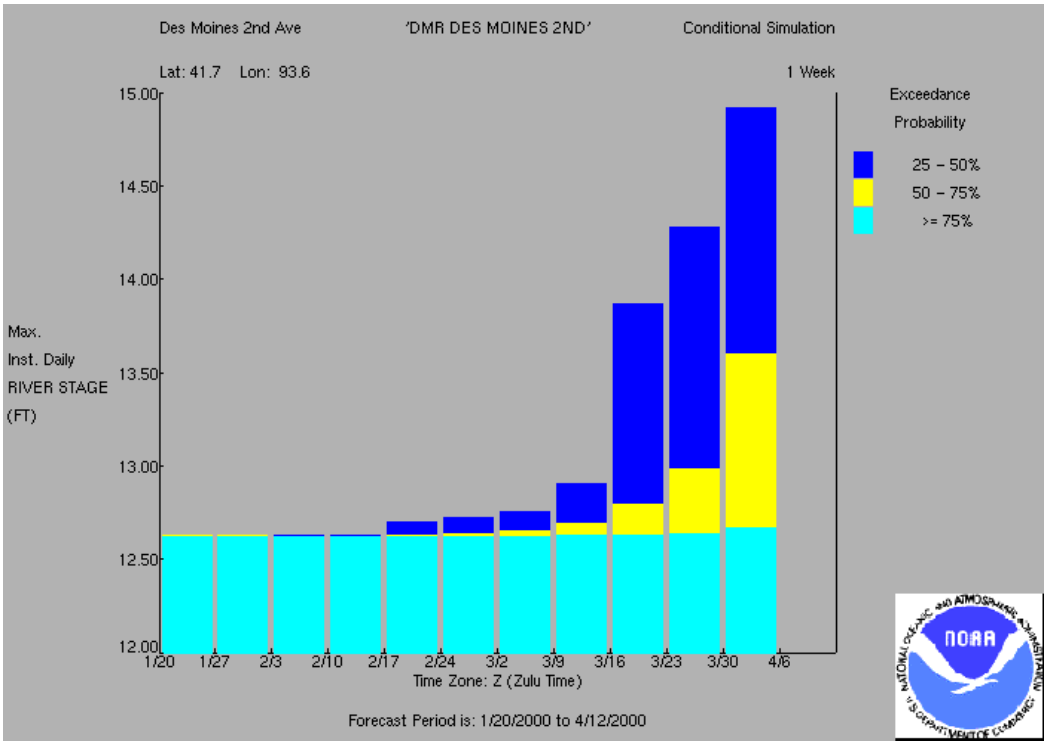


The forecast flood stage can be electronically mapped to determine the properties and roads to be flooded.

Source: U.S. Army corps of Engineers – Philadelphia District

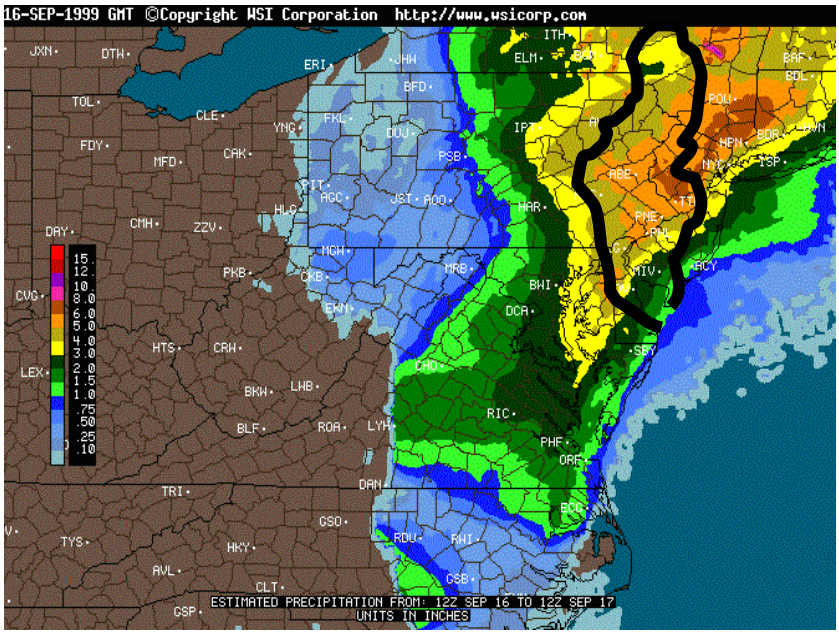
90-Day River Stage Forecast with Probability

Stage probability forecasts can be useful in making decisions for business and industrial operations



Source: National Weather Service

Techniques are also being developed to use Doppler radar to estimate precipitation for flash flood warning. This map shows such an estimate for September 16th 1999 - Hurricane Floyd.



Source: Weather Services Incorporated, courtesy of Intellicast