

A photograph showing a flooded road. In the foreground, turbulent, brown water flows over a concrete barrier, creating white foam. The road surface is partially submerged. In the background, a paved road leads into the distance, flanked by green trees and grass. A water tower is visible on the right side of the road. The sky is clear and blue.

# **Don't Test the Waters Council Bluffs**

**David Pearson, Senior Hydrologist  
NWS Omaha/Valley, Nebraska**

*Iowa Hwy 92—Muchakinoch Creek near Oskaloosa, IA  
(NWS Des Moines)*

# Agenda

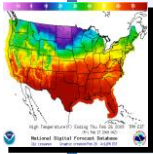
- National Weather Service in Iowa
- Flood impacts in Iowa
- Finding flood forecasts & warnings
- Flood safety tips



Ames, IA/Iowa State University  
(Associated Press)



# National Weather Service in Iowa





# NWS structure

U.S. Department of  
Commerce (DOC)



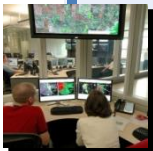
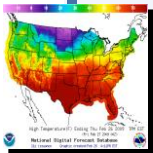
National Oceanic and  
Atmospheric Administration  
(NOAA)



National Weather Service  
(NWS)



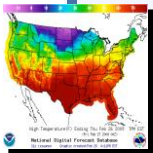
*NWS Omaha office*



# NWS mission

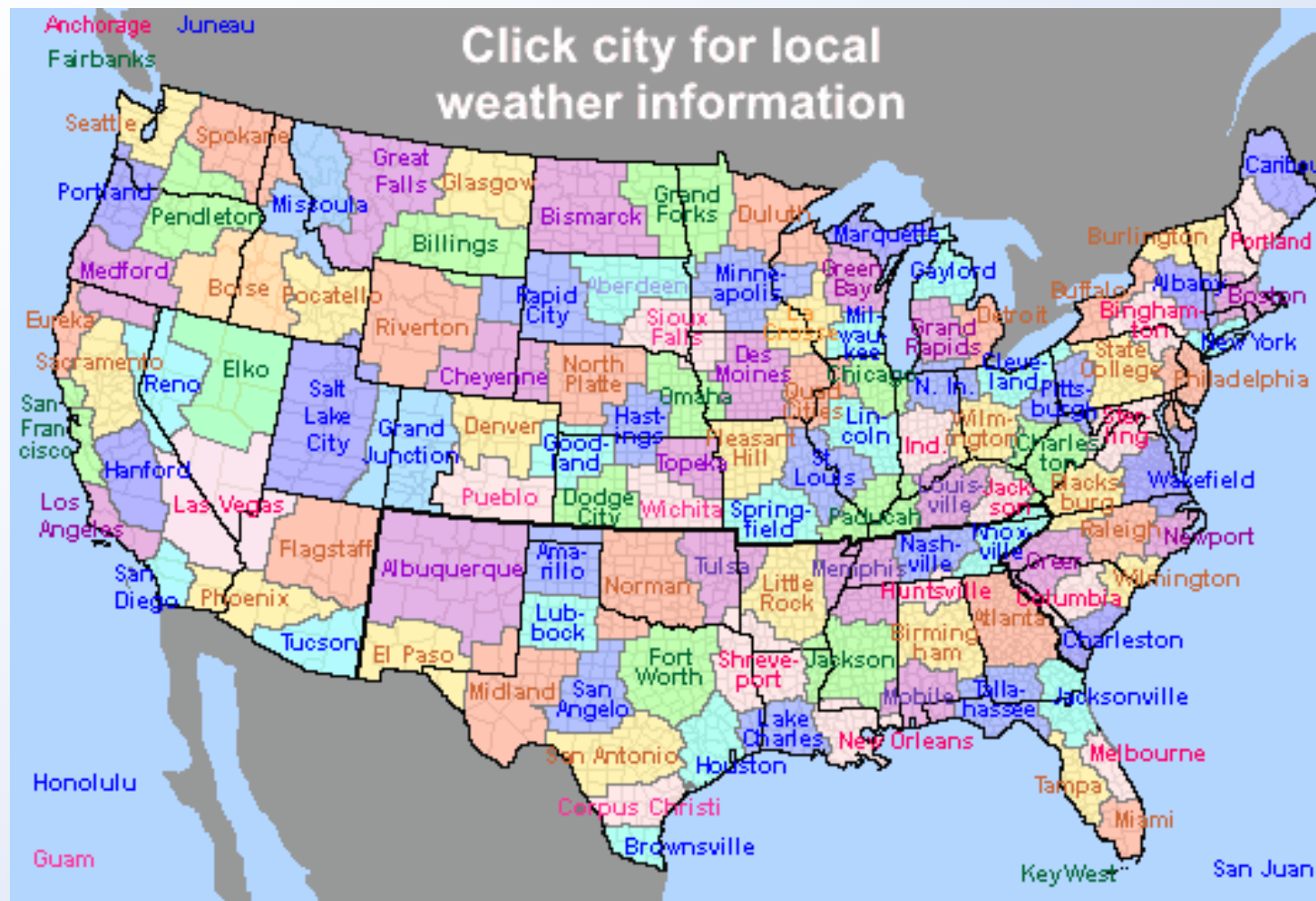
The National Weather Service provides weather, water, and climate forecasts and warnings for the United States, its territories, adjacent waters, and ocean areas **for the protection of life and property and the enhancement of the national economy.**

National Weather Service  
*Protecting Lives and Property*

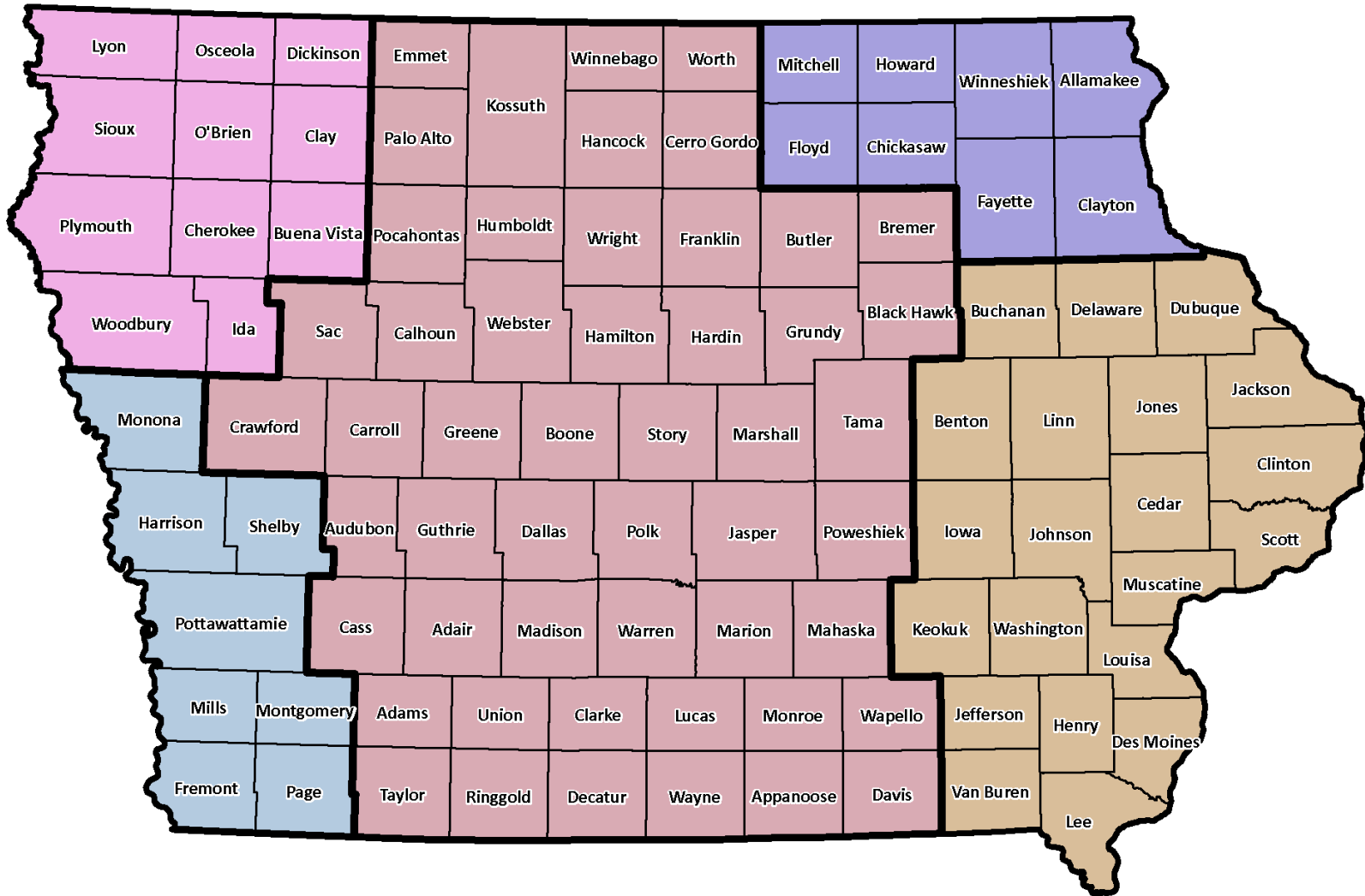


# National Weather Service

## Protecting Lives and Property

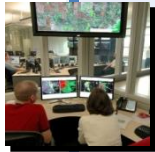
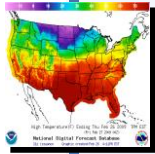


# Iowa Counties & Servicing NWS Offices



Des Moines, IA
  Omaha, NE
  Sioux Falls, SD
  La Crosse, WI
  Quad Cities, IA/IL

# Flood impacts in Iowa





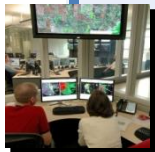
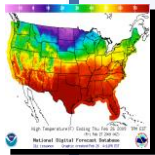
# Flood impacts in Iowa

- Iowa—#2 for flood damage since 1950
- 90% of damage in natural disasters is caused by floods & mud/debris flows
  - *Annually, ~\$5 billion in damage in U.S. (#1)*
  - *Annually, ~90 deaths in U.S.*
- Cedar Rapids, Iowa—2008
  - *~\$3 billion in damage*



Colfax, IA—August 2010

# Finding flood forecasts & warnings



NOAA's National Weather Service - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.weather.gov/

NOAA's National Weather Service

weather.gov

National Oceanic and Atmospheric Administration's  
**National Weather Service**

Site Map News Organization Search  NWS All NOAA Go

Local forecast by "City, St"  Go

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Warnings

Current

By State/County...

UV Alerts

Observations

Radar

Satellite

Snow Cover

Surface Weather...

Observed Precip

Forecasts

Local

Graphical

Aviation

Marine

Hurricanes

Severe Weather

Space Weather

Fire Weather

Text Bulletins

By State

By Message Type

National

Forecast Models

Numerical Models

Statistical Models...

MOS Product

GFS-L

Climate

Past W

Predict

Weather

Weather

Hazard Assmt...

StormReady /

TsunamiReady

Skywarn™

Education/Outreach

Information Center

Done

...Historic Tornado Outbreak Across the South...  
Expert analysis by NOAA Research and the National Weather Service indicate that there were a total of 312 tornadoes during the entire outbreak from 8 am EDT April 26 to 8 am April 28. There were an estimated 226 tornadoes during the 24 hour-period from 8 am April 27 to 8 am April 28 from this tornado. [Details...](#)

Warnings & Forecasts Graphical Forecasts National Maps Radar Water Air Quality Satellite Climate

Warnings By State  Go Click Below To Zoom In. Tabs At A Glance

Created: 05/02/11 at 18:18 UTC

American Samoa · Guam · Puerto Rico/Virgin Islands

Flash Flood Warning Civil Emergency Message High Wind Warning Flash Flood Watch Flood Warning Gale Warning Freeze Warning Winter Weather Advisory Flood Advisory Small Craft Advisory Lake Wind Advisory Wind Advisory Frost Advisory Flood Watch Gale Watch Freeze Watch Coastal Flood Statement Special Weather Statement Hazardous Weather Outlook Hydrologic Outlook Short Term Forecast

FEMA

Spanish

Are you a disaster survivor?

**Apply for Assistance**

- Full Site, Mobile Site
- Call (800) 621-3362
- TTY (800) 462-7585

3 Step Guide for Assistance

State Disaster Pages, Recovery Tips

Disaster Recovery Centers

DisasterAssistance.gov  
ACCESS TO DISASTER HELP AND RESOURCES

FEMA Blog |

SHARE

**www.weather.gov/omaha**

RSS/XML  
UV Alerts  
**Observations**  
Radar  
Satellite  
Snow Cover

Aviation  
Marine  
River/Stream  
Hurricanes  
Severe Weather  
Fire Weather  
Sun/Moon

Heating/Cooling Days  
Monthly Temps  
Records  
Long Range Forecasts  
Astronomical Data  
Education/Outreach

Proper Siting for  
Weather Instruments  
Damage/Fatality/Injury  
Statistics  
Admin maps/charts  
Brochures  
Digital Forecast Info

Employees  
Mission Statement  
Strategic Plan  
Headline Archive  
International  
Legislative Affairs  
National Centers







# Omaha/Valley, NE



Local forecast by  
"City, St" or Zip Code

City, St  Go

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Current Hazards

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Outlooks

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Satellite

Snow Cover

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Severe Weather

Winter Weather

Hurricane Center

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Watches & Warnings

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NDFD Graphics

Click on the map below for the latest forecast.



Last map update: Tue, May. 24, 2011 at 8:40:49 am CDT

[Read watches, warnings & advisories](#)



[Severe Thunderstorm Warning](#)

[Severe Thunderstorm Watch](#)

[Flash Flood Watch](#)

[Severe Weather Statement](#)

[Flood Warning](#)

[Flood Watch](#)

[Hazardous Weather Outlook](#)

## Latest Conditions in Omaha, NE

## Choose Your Front Page City

May 24  
7:52 am



Mostly Cloudy

64°F

(18°C)

Select A City:

### Weather Story



### Radar



### Satellite



### Weather Map



## Frequently Requested Pages:

- [Local Forecasts](#)
- [Forecast Discussion](#)
- [Additional Climate Resources](#)

## Seasonal Pages:

- [Severe Weather Safety](#)
- [River Information/AHPS](#)







# National Weather Service Advanced Hydrologic Prediction Service

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Local weather  
forecast by  
"City, ST"

City, ST

Adjacent Areas:



National Conditions  
Rivers  
Satellite  
Climate  
Observed Precip

Local Conditions  
Warnings  
Weather Forecast  
Radar

AHPS  
Documentation  
User Guide  
User Brochure

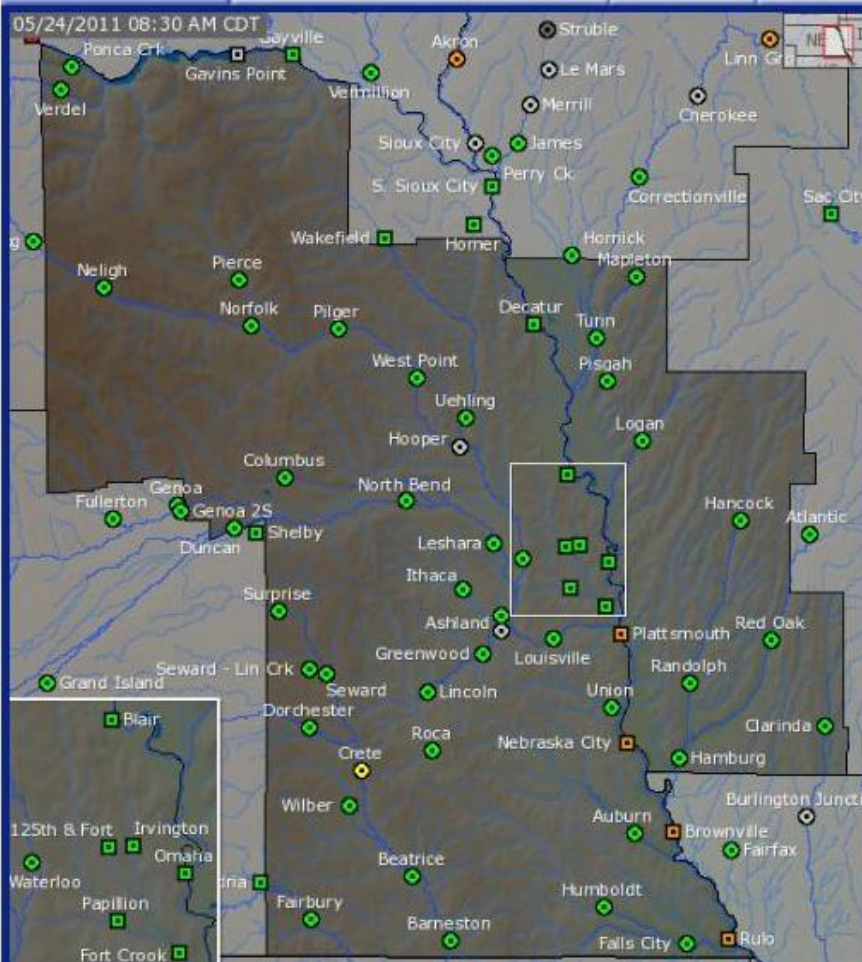
What is AHPS?  
Facts  
Our Partners

Feedback/Questions  
Provide Feedback  
Ask Questions



**ALERT!!** A **Flood Warning** is in effect for portions of the area. [View all valid statements/warnings](#) or choose a specific point or river to get the details for that location.

Weather Forecast Office Omaha/Valley, NE

[River Observations](#)
[River Forecasts Within 48 Hours](#)
[Precipitation](#)
[Download](#)

[Print / Save Map](#)

Map Legend

- ☐ Hydrograph Available
- ☐ Probability and Hydrograph Available
- Major Flooding
- Moderate Flooding
- Minor Flooding
- Near Flood Stage
- No Flooding
- Observation More Than 24 Hours Old
- Out of Service

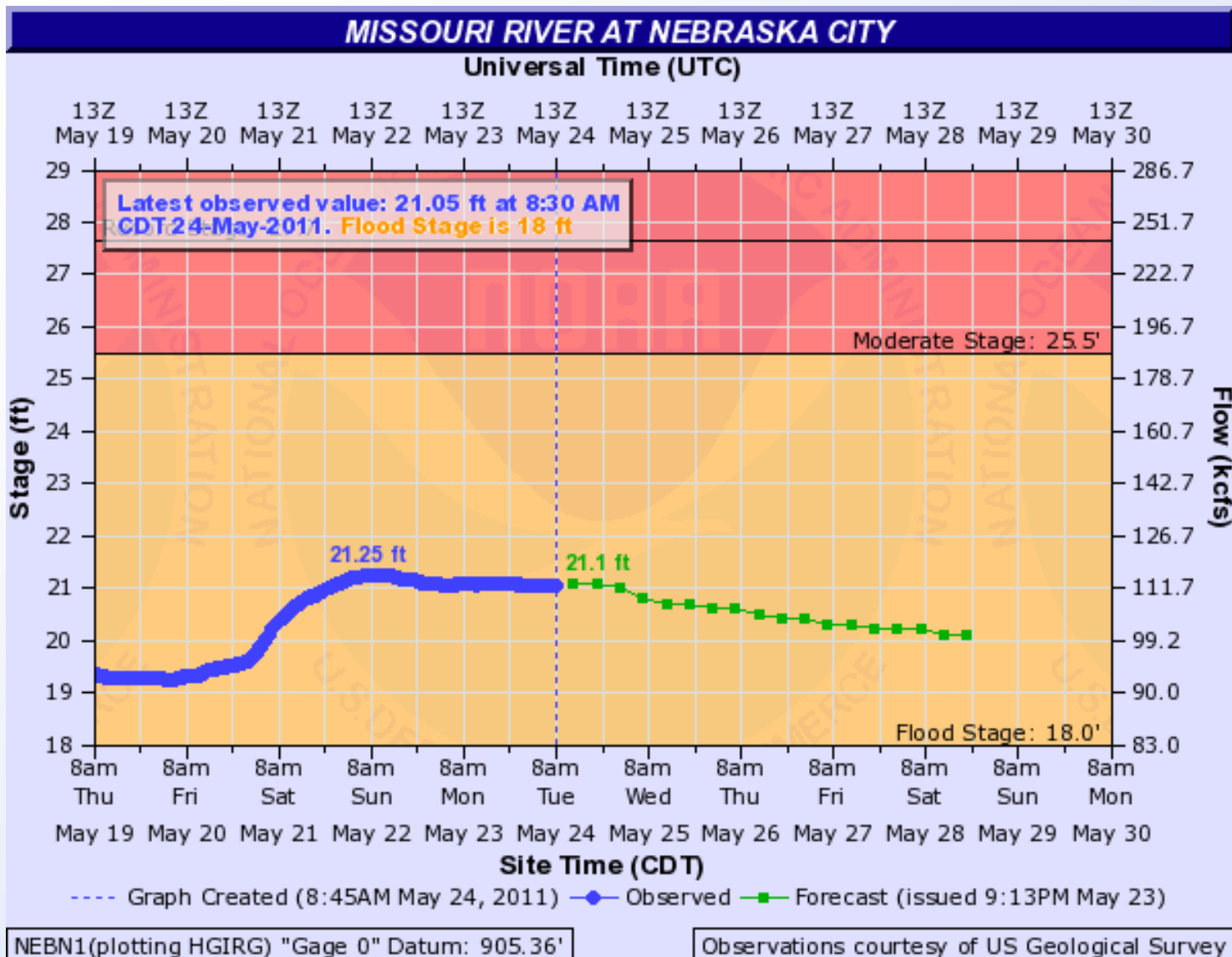
- ☒ Topo ☒ Gauges ☐ Counties ☒ States ☒ Major Rivers ☒ Other Rivers ☐ Highways ☐ Cities
- ☒ HSA ☒ Names ☐ Names ☐ Names

86 Total Gauges 7 Locations in flood

[RSS](#)

National Weather Service  
Protecting Lives and Property







### Flood Categories (in feet)

Major Flood Stage:	29.6
Moderate Flood Stage:	25.5
Flood Stage:	18
Action Stage:	16

### Historical Crests

- (1) 27.66 ft on 04/18/1952
  - (2) 27.19 ft on 07/23/1993
  - (3) 25.21 ft on 06/21/2010
  - (4) 24.94 ft on 06/15/2010
  - (5) 24.78 ft on 06/15/1984
- Show More Historical Crests

### Low Water Records

- (1) 0.00 ft on 01/18/2003
  - (2) 0.00 ft on 01/12/1982
  - (3) 0.00 ft on 01/28/1979
  - (4) 0.00 ft on 01/27/1979
  - (5) 0.00 ft on 01/26/1979
- Show More Low Water Records



### Legend



Disclaimer

Gauge Location

Latitude/Longitude Disclaimer: The gauge location shown in the above map is the approximate location based on the latitude/longitude coordinates provided to the NWS by the gauge owner.

### Flood Impacts

Collapse

- |      |   |
|------|---|
| 29.6 | The federal levees overtop.                               |
| 25.5 | First Street on the right bank near the gage site floods. |
| 23   | A grain elevator on the right bank near the gage floods.  |
| 21   | Highway 2 on the Iowa side floods.                        |
| 18   | Widespread lowland flooding begins.                       |
| 15   | The left bank overflows into some croplands.              |





# Omaha/Valley, NE



Local forecast by  
"City, St" or Zip Code

City, St  Go

**XML** RSS Feeds

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Satellite

Snow Cover

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Severe Weather

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Your National Weather Service forecast



## 3 Miles NNW Sidney IA

Enter Your "City, ST" or zip code

Go

BOOKMARK

NWS WFO Omaha, NE

Point Forecast: 3 Miles NNW Sidney IA

40.78°N 95.7°W (Elev. 1200 ft)

Mobile Weather Information | En Español

Last Update: 7:35 am CDT May 24, 2011

Forecast Valid: 10am CDT May 24, 2011-6pm CDT May 30, 2011

### Forecast at a Glance

Today	Tonight	Wednesday	Wednesday Night	Thursday	Thursday Night	Friday	Friday Night	Saturday
								
40% Chance Tstms	70% Tstms Likely	80% Tstms	50% Chance Tstms	Mostly Cloudy	Partly Cloudy	40% Chance Tstms	Chance Tstms	Mostly Sunny
Hi 79 °F Lo 62 °F	Lo 62 °F	Hi 69 °F	Lo 51 °F	Hi 67 °F	Lo 52 °F	Hi 66 °F	Lo 54 °F	Hi 77 °F

### Detailed 7-day Forecast

Hazardous weather condition(s):

#### Flood Warning Hazardous Weather Outlook

**Today:** A 40 percent chance of showers and thunderstorms after 1pm. Partly sunny, with a high near 79. East southeast wind between 13 and 17 mph, with gusts as high as 25 mph. New rainfall amounts between a quarter and half of an inch possible.

**Tonight:** Showers and thunderstorms likely. Cloudy, with a low around 62. East southeast wind around 15 mph, with gusts as high as 22 mph. Chance of precipitation is 70%. New rainfall amounts between 1 and 2 inches possible.

**Wednesday:** Showers and thunderstorms. High near 69. Breezy, with a east northeast wind between 13 and 18 mph, with gusts as high as 26 mph. Chance of precipitation is 80%. New rainfall amounts between a half and three quarters of an inch possible.

**Wednesday Night:** A 50 percent chance of showers and thunderstorms, mainly before 1am. Cloudy, with a low around 51. Breezy, with a north wind between 20 and 23 mph, with gusts as high as 31 mph. New rainfall amounts between a tenth and quarter of an inch, except higher amounts possible in thunderstorms.

**Thursday:** Mostly cloudy, with a high near 67. North northeast wind between 11 and 16 mph, with gusts as high as 22 mph.

**Thursday Night:** Partly cloudy, with a low around 52

### Current Conditions

[Move Down]

view Yesterday's Weather

#### Shenandoah Municipal

Lat: 40.75 Lon: -95.42 Elev: 971

Last Update on May 24, 8:56 am CDT

'Overcast'

68 °F  
(20 °C)

Humidity:	83 %
Wind Speed:	SE 3 MPH
Barometer:	29.78"
Dewpoint:	63 °F (17 °C)
Visibility:	10.00 mi.
More Local Wx:	3 Day History:

### Radar and Satellite Images



### Detailed Point Forecast

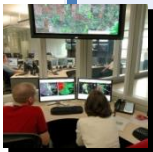
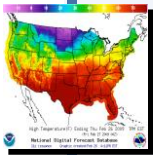
[Move Up]

Click Map for Forecast

Disclaimer



# Flood safety tips

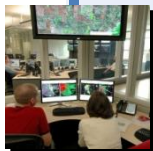
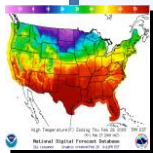


# Flood safety tips

- **Know the threat**
  - *Flood vs. flash flood*
  - *What, where & when*
- **Listen for more information**
  - *NOAA Weather Radio, television & radio stations*
- **Be prepared**
  - *To evacuate quickly*
  - *To move to higher ground quickly*



*Mud Creek fatality—Des Moines, IA  
(KCCI-TV8)*





# Flood safety tips

- **Stay away from floodwaters**
  - *6" of moving water*
  - *Includes children!*
- **Turn around don't drown!**
  - *2 ft of moving water*
- **Be especially cautious at night**







**Thank you**

<http://www.weather.gov/omaha>

<http://www.floodsafety.noaa.gov/>