

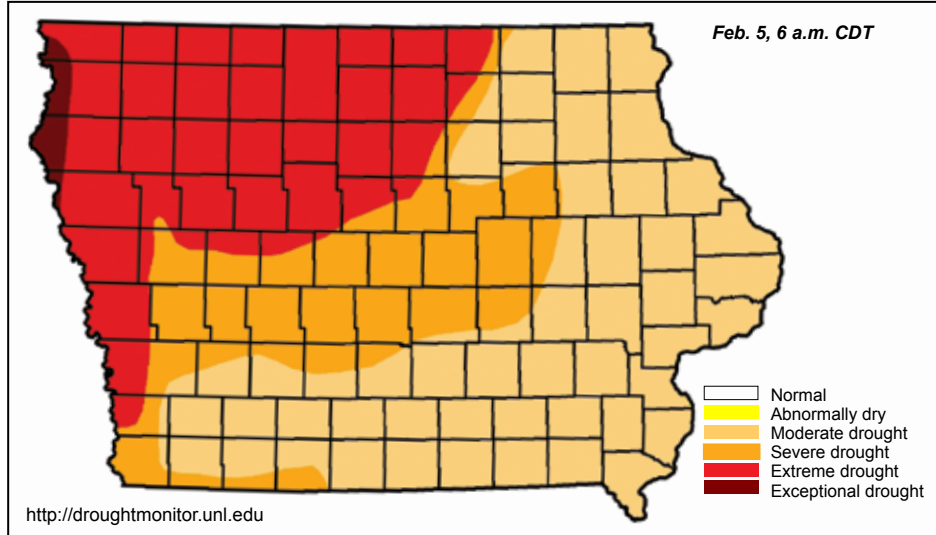
# WATER SUMMARY UPDATE

No. 19

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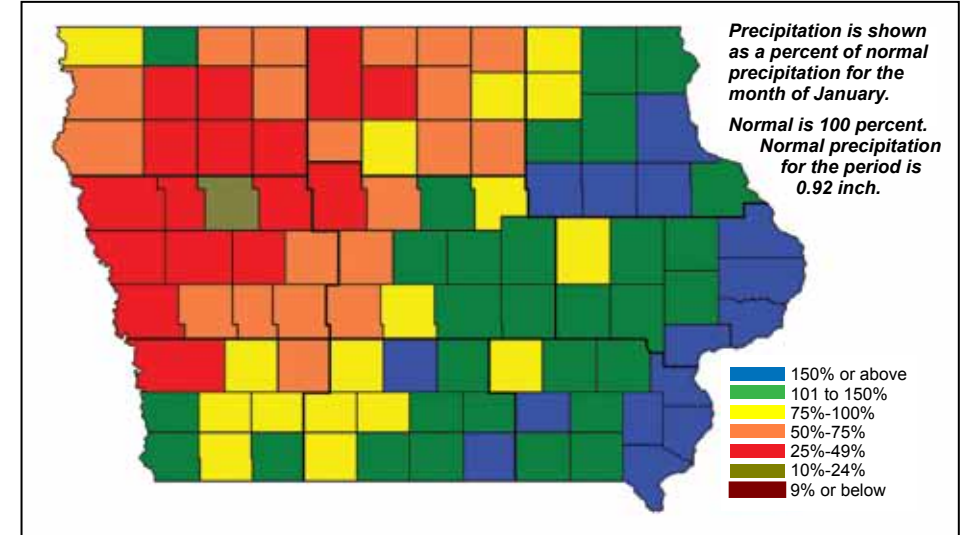
## Drought Monitor

National Drought Mitigation Center and partners



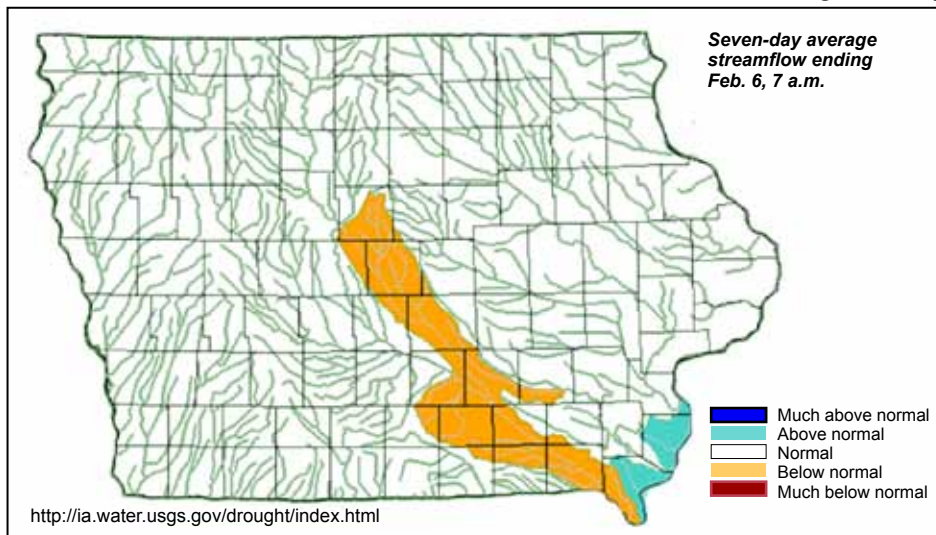
## Precipitation

State Climatologist



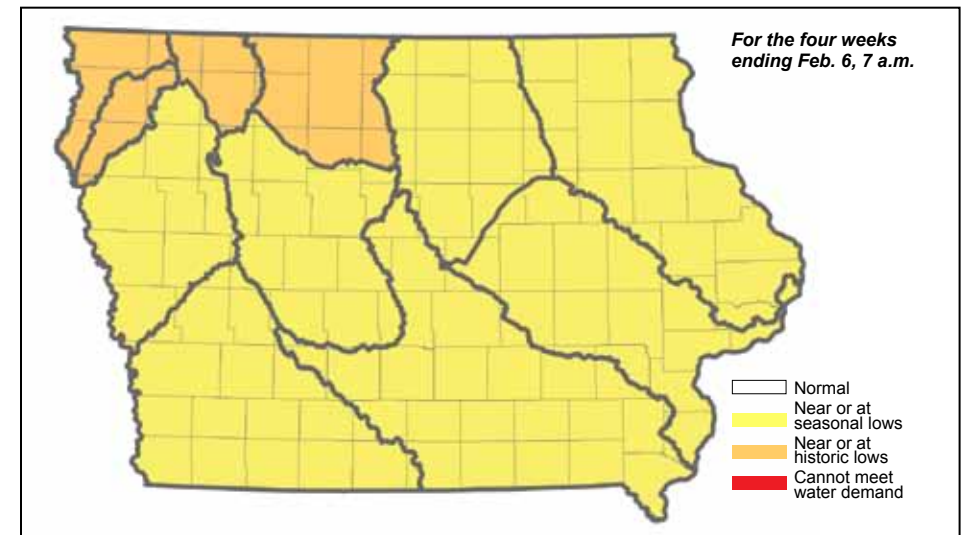
## Streamflow

US Geological Survey



## Shallow Groundwater

Iowa DNR



## Recent Developments and Changes

### Overall Conditions

Precipitation in January was above normal for Iowa, although normal is less than an inch. As the state moves into typically wetter months, above normal precipitation will be much more meaningful. Streamflows are improved and there are some streams of southeast Iowa that are showing above normal flow. Again, it should be pointed out that average flows are fairly low in January and small amounts of precipitation this time of year can change average flows rapidly. Of greatest concern are continued low groundwater levels in shallow sand and gravel in river valleys. Normal low demand in January usually results in rising groundwater levels, but those rising levels are not observed in many locations this year. If this trend continues, some water systems will begin the 2013 growing season with lower groundwater reserves than at the start of 2012.

### Drought Monitor

Over the past month, conditions as reported on the drought monitor have remained essentially unchanged. About a third of the state remains in at least the D3, or extreme drought designation, while just over half the state is in at least D2, or severe drought designation.

It is interesting to note that just one year ago — as Iowa headed into the 2012 drought — there were no areas designated D3 or D4, and the designation D2 (severe drought), affected only about a quarter of the state. One year ago over 60 percent of the state not in any drought condition, while today the entire state is designated in some state of drought.

### Streamflow

Streamflow conditions have generally improved since the last water summary and areas that had flows below average (over a seven-day period) have improved to the normal flows. The lowest streamflow conditions are within the Des Moines and Skunk River basins which are less than 24 percent of normal streamflow. Streamflow conditions in western Iowa remain at the lower end of normal. However, USGS field measurements over the past week (Feb. 4-7) show that current flows in eastern Iowa are moving back into the below normal range.

USGS reminds Iowans that during the winter season, streamflow data may be impacted by ice formation and backwater, and that their data should be used as preliminary information only.

### Shallow Groundwater

Shallow groundwater levels in the southeast two-thirds of the state improved slightly during January. Static water levels across the northwest third of Iowa were at or near seasonal and historic lows. Static water levels in the sand and gravel aquifers along the Ocheyedan, West Fork of the Des Moines, and Rock rivers were at two-year lows, and are approximately one to four feet lower than January 2012.

The next Water Summary Update will be published March 7, 2013.

## Notable Events for the Period

### The following observations were made by Iowa DNR and other agency technical and field staff:

In some parts of northwest Iowa creeks without wastewater discharge flow are dry, most wetlands are dry, and most field tiles are not running.

Several observation wells located in shallow alluvial materials in northwest Iowa show water levels at two-year lows — lower than last summer. This is unusual due to the fact that this is the time of the year with the lowest typical water demand.

Lake levels are low and getting lower across much of the state. The water level at Saylorville Reservoir is below 930 feet, and continues to drop.

Water supplies, private wells and anyone using shallow aquifers should have a contingency plan in place for other sources. Iowa DNR water supply programs are working with communities to review and update water conservation plans in advance of the summer months.

### Precipitation

Statewide January precipitation totaled 0.96 inches or 0.04 inches above normal, while temperatures averaged 21.6°F. or 2.2° above normal. The new year got off to a very dry start with a near-record low pace of precipitation until late in the month. January 19-27 had two larger statewide rain events. Thunderstorms over most of the southeast two-thirds of Iowa brought over an inch of rain to much of eastern Iowa.

Heavy snow that fell from south central through northeast Iowa January 29-30 helped push the snow totals to a statewide average of 3.6 inches — 4.1 inches below normal. This was the lowest January snow total since 2006 and ranks 19th lowest for the month among 126 years of records.

Temperatures were variable throughout the month with no extended periods of mild or unusually cold weather.

*Prepared by the Iowa DNR in collaboration with the Iowa Department of Agriculture and Land Stewardship, the U.S. Geological Survey, and The Iowa Homeland Security and Emergency Management Division.*

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