

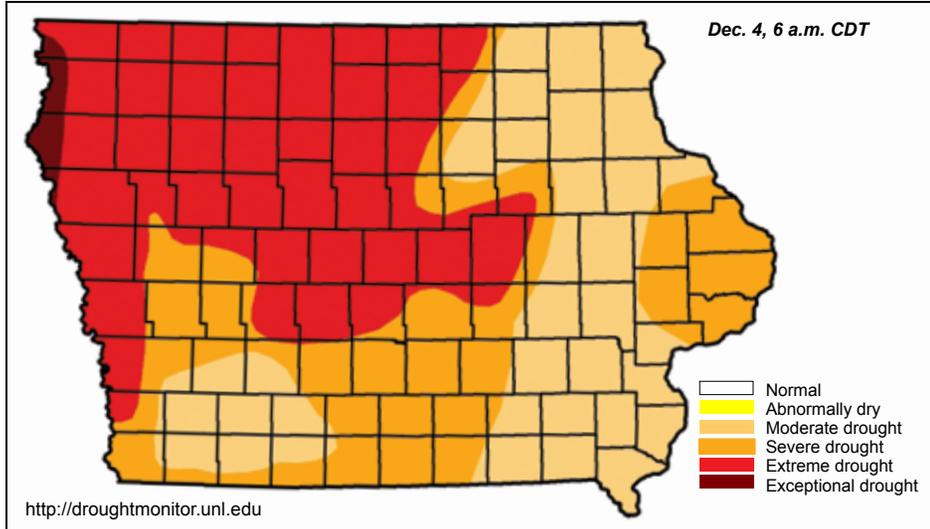
WATER SUMMARY UPDATE

No. 17

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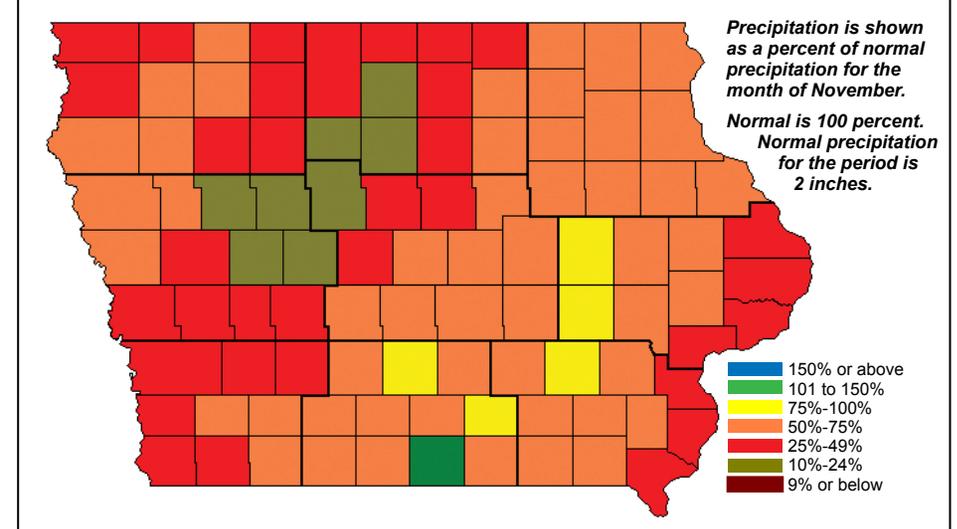
Drought Monitor

National Drought Mitigation Center and partners



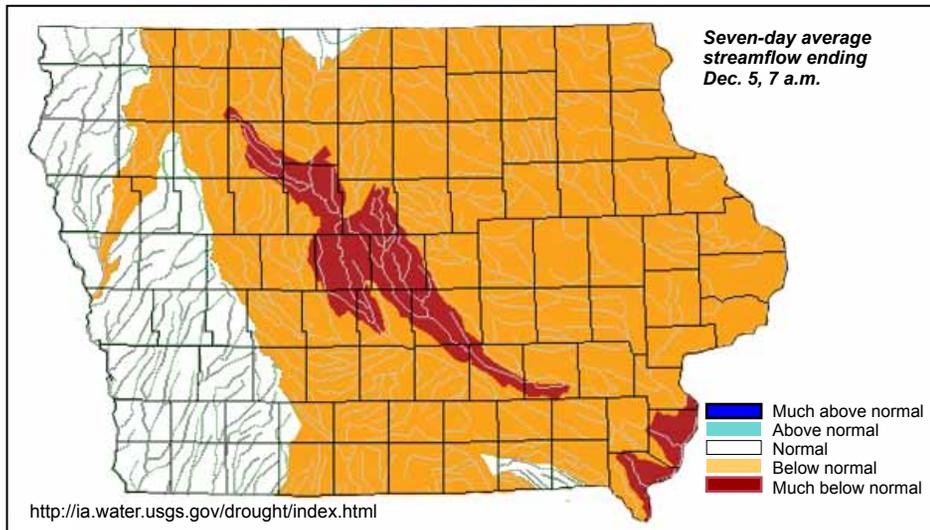
Precipitation

State Climatologist



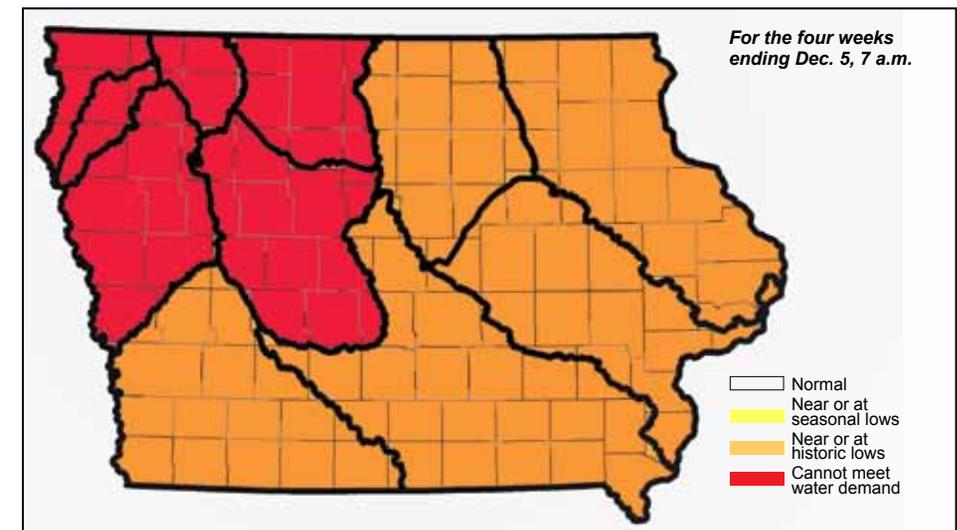
Streamflow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

After a wetter than normal October, the state saw a drier than normal November. Rainfall was about half the normal amount for the month.

Streamflows and lake levels continue to suffer. Saylorville Reservoir is expected to reach a record low level within the next week, and there are several stream gage stations that are registering no flow. Concern continues to grow over what could be another dry winter and the water conditions that may exist in the spring.

Drought Monitor

Over the past month conditions reported on the drought monitor have improved slightly, most likely due to above normal rainfall in October. The area of exceptional drought has been reduced from about 2.5 percent to 1.2 percent. Other categories of drought intensity have dropped by similar levels, with a greater area of the state being shifted into less severe drought categories. All of the state, however, remains in at least the category of D1 — moderate drought.

Precipitation

November precipitation was well below normal over most of Iowa. Normal precipitation for November is about two inches, and precipitation averaged only about one inch. The fall season is important for soil moisture recharge and the fall rainfall has been more than two inches below normal across the state. Parts of far northeast Iowa have recorded slightly greater than normal fall precipitation, while some areas in northwest Iowa have seen less than one-half of normal rain.

Streamflow

Streamflow conditions remain below normal for the majority of the state. In fact, conditions have worsened since the last water summary with areas that had normal flow now with less than 10 percent of normal flow. The lowest streamflow conditions are in the Des Moines and Skunk River basins.

Streamflow conditions in the western portion of the state remain normal, as in last month's water summary. Only about one quarter of the state is seeing streamflow in the normal range, and streamflow is mostly lower than at this time last year.

In December 2011 there were 10 U.S. Geological Survey (USGS) long-term gaging sites showing below normal flow, and now there are 73 rated below normal. There are currently 36 stream reaches that are below protected flow, with six of

Shallow Groundwater

Shallow groundwater levels across the state continue to be near historic lows. Levels have dropped up to another foot along the Ocheyedan and Upper Little Sioux rivers in northwest Iowa during November. Communities in western Iowa which rely on shallow wells as their primary source of water are concerned about low groundwater levels this fall and some cities are exploring development of secondary water sources. The DNR has seen an increased interest in new irrigation permits across the state. An extremely dry fall across Iowa has provided very little groundwater recharge. As winter approaches and frost enters the soil profile, little or no additional recharge is expected before spring. This will further impact streamflow and shallow groundwater throughout the winter season.

Notable Events for the Period

Several USGS stream gage stations in central Iowa are reporting no flow conditions.

Saylorville Reservoir is expected to reach its record low level of 832.2 ft within the next week. That will be the lowest level seen since the reservoir first began operation at its conservation pool in 1977, and was last observed March 9, 1989.

Soil moisture has improved over the past three months, particularly at shallower depths. However, subsoil moisture levels are worse compared to this time last year, except in the southeast where they are similar.

The USGS real-time groundwater monitoring network in Iowa shows water levels in wells have decreased from this time last year across all of Iowa with the exception of the far northeast where levels are similar to one year ago.

Wednesday night, Nov. 21, the peat in the dry lake bed of Eagle Lake State Park in Hancock County caught fire, and over 900 acres of the area burned. Lack of rain over the past two years has caused the lake and surrounding wetlands to dry up.

The Iowa Homeland Security and Emergency Management Division is planning a Dec. 14 meeting of interested agencies and communities to discuss the current drought situation and to determine actions that may need to take place in the months ahead. For more information, contact Joyce Flinn at 515-323-4313, or Joyce.Flinn@iowa.gov.

The next Water Summary Update will be published Jan. 3, 2013. Biweekly publication will resume this spring.

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