IOWA DNR
DEPARTMENT OF NATURAL RESOURCES

WATER SUMMARY UPDATE

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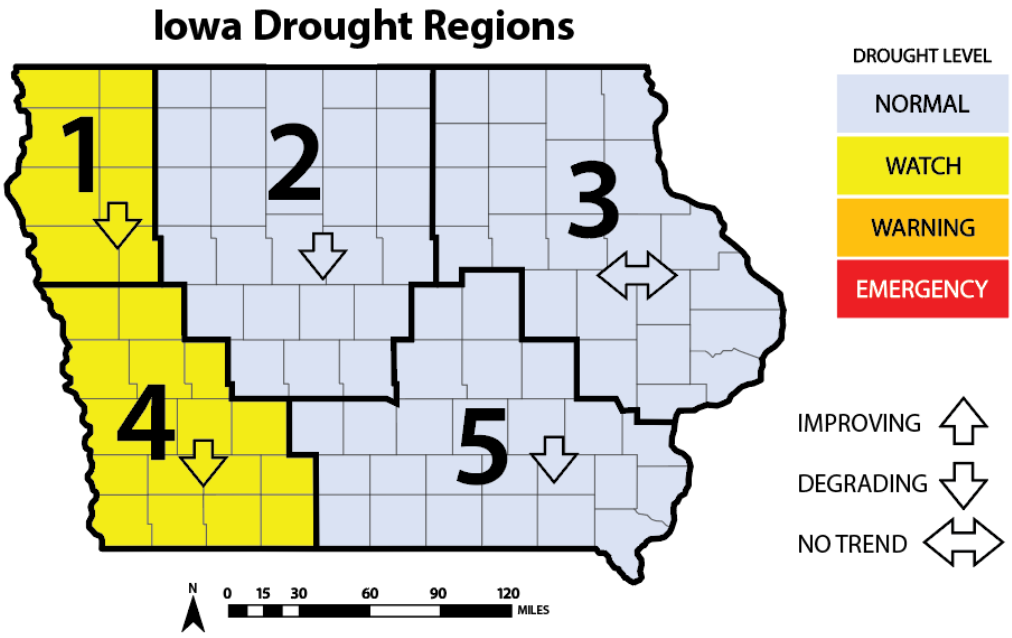
A snapshot of water resource trends for May 2025

IOWA DROUGHT CONDITIONS



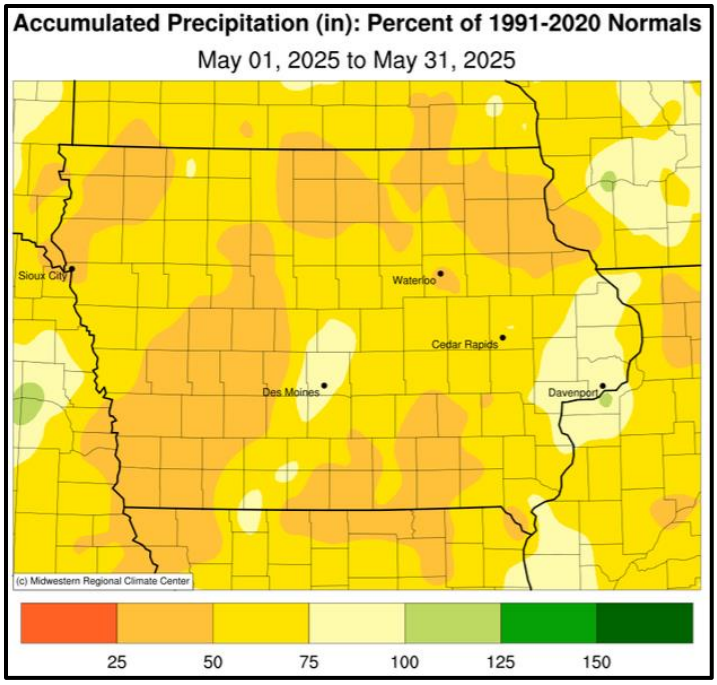
CONDITION SUMMARY - STATUS QUO IN MAY

In early May, drought and dryness largely stayed the same across most of the state, but conditions degraded later in the month and into early June. Expansion of D1 – Moderate Drought in northwest, southwest, and southeast Iowa was most notable, while conditions improved or remained the same in the remaining areas. Soil moisture and stream flows are largely considered normal despite some deterioration in recent months and the increase in temperatures. May and June are typically the wettest months of the year for the state. The final June precipitation outlook issued by the National Weather Service's Climate Prediction Center (CPC) indicates a higher chance for above-average temperatures and an equal chance for above, below, or near-average precipitation across the state.

May Precipitation and Temperature

Iowa's statewide preliminary precipitation totaled 2.80 inches, or 2.04 inches below normal. All of Iowa's National Weather Service co-op stations reported precipitation deficits during the month. Only small pockets of central and eastern Iowa observed near-normal conditions; a large swath of southwest Iowa reported deficits in the 3.00-to-4.00-inch range.

The statewide preliminary average temperature was 60.0 degrees, 0.1 degrees above normal. Temperatures through the first half of May were four to six degrees above normal while the second half of the month was four to six degrees below normal. Overall, much of Iowa had near-normal temperatures with slightly cooler conditions across southern Iowa.



Standardized Precipitation Index (SPI)

The SPI is an index based on accumulated precipitation for various time scales. SPI is the most commonly used indicator worldwide for detecting and characterizing meteorological droughts. The SPI indicator measures precipitation differences based on a comparison of observed total precipitation amounts over the period of interest with the long-term historical precipitation record for that period. Droughts are characterized by negative SPI values, while positive SPI values indicate wet periods. The range of SPI values is between -3 and +3, denoting “extremely dry” to “extremely wet”.

90-day SPI values for all Drought Regions in May (comparing March, April, and May precipitation) range from -0.9 to -0.1, with all values below zero. 180-day SPI values are all negative as well, with Drought Region 4 having the most significant decreasing trend.

Drought Region	3-month SPI	6-month SPI	IDP Classification ↑ = improving ↓ = degrading ↔ = no trend
1	-0.3	-0.6	Watch ↓
2	-0.1	-0.1	Normal ↓
3	-0.4	-0.4	Normal ↔
4	-0.8	-0.8	Watch ↓
5	-0.9	-0.6	Normal ↓

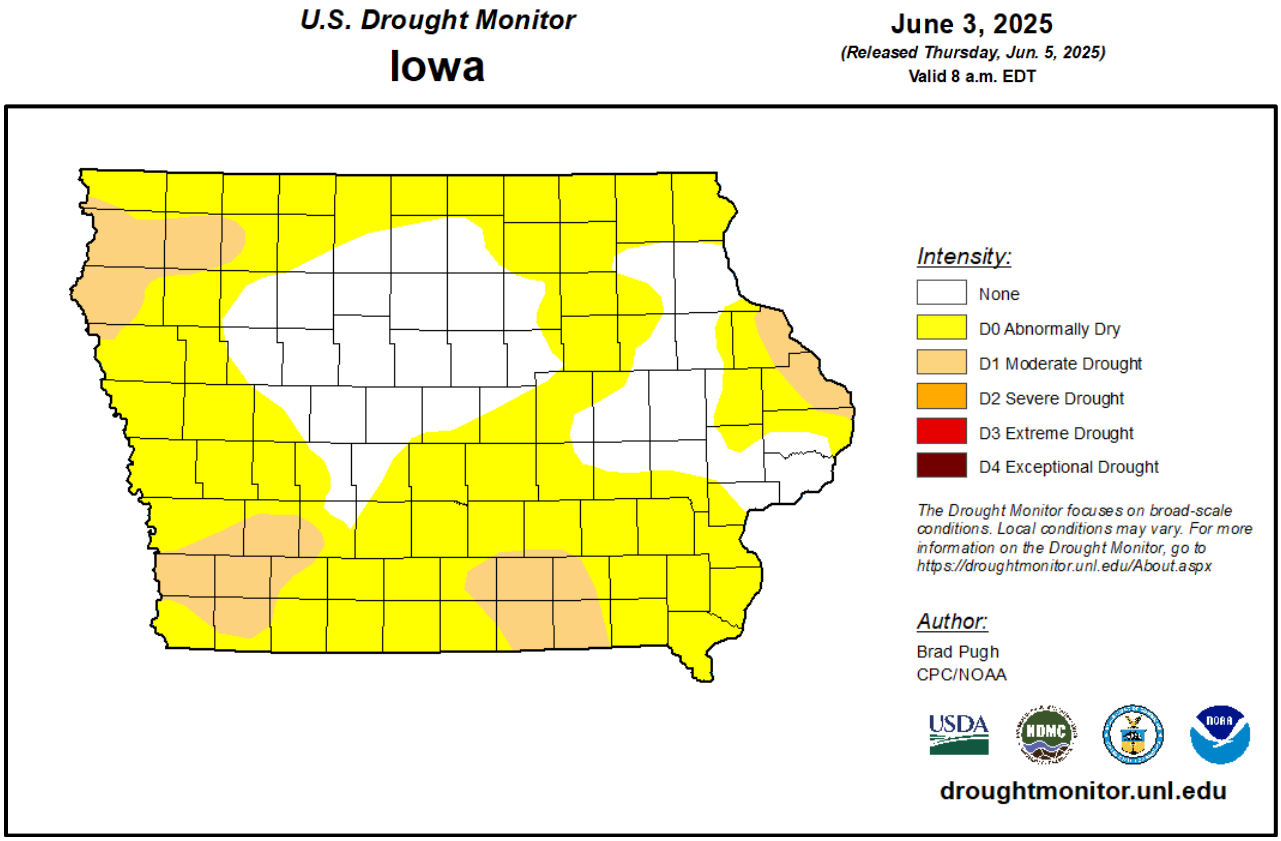
Standardized Streamflow Index (SSI) and Streamflow

SSI is a metric that compares current streamflow against the historical record to determine how far away the current streamflow value is from the river’s historical mean observed on the same date. SSI values in four of the five drought regions have decreased, with Drought Region 3 having a higher value in May compared to April.

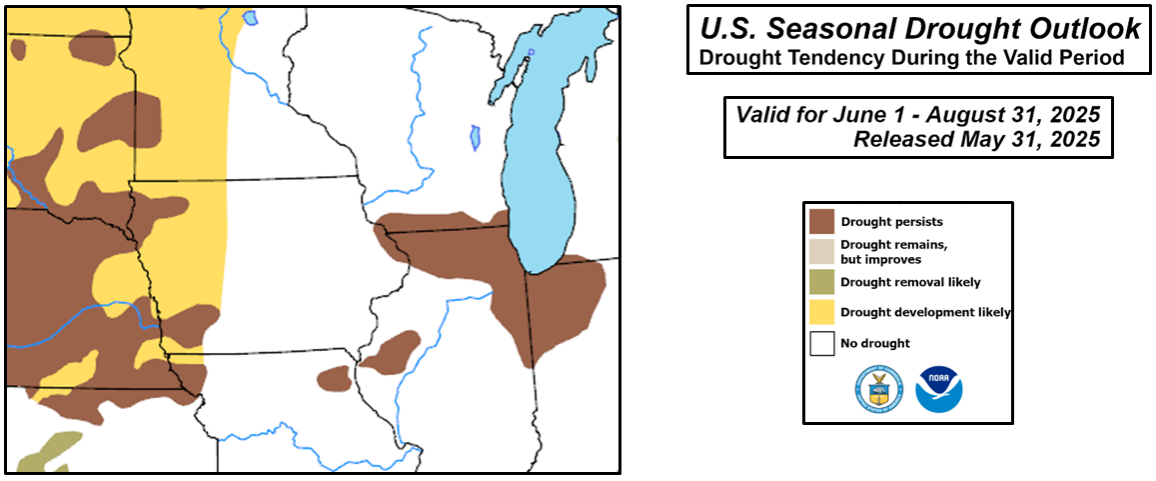
According to the US Geological Survey, in May, streamflow levels decreased in the Turkey, Volga, and upper portion of the Wapsipinicon Rivers to normal flow conditions. The Rock, Floyd, East Nishnabotna, West Nishnabotna, Middle Raccoon, South Raccoon, and Des Moines, below Lake Red Rock, Rivers have decreased to below-normal conditions. The Keg and Waubonsie Creeks and Chariton River remained in below-normal conditions. The majority of the state remains in normal flow conditions.

US Drought Monitor and Drought Conditions

The current US Drought Monitor (USDM) indicates comparable conditions in most areas of the state throughout May, with drought expansion in areas of western Iowa. By the end of May and into early June, the areas of D0 increased to 72 percent, a more than 20 percent increase. Additionally, over six percent of D0 – Abnormally Dry or no dryness areas have been downgraded to D1-Moderate Drought. Nearly 28 percent of the state is rated as free from drought and dryness through the beginning of June, mostly concentrated in central and eastern Iowa. Due to below-normal precipitation in May, drought and abnormally dry conditions expanded. The most recent USDM, released on June 5, shows degradation and a continuation of dry conditions across most of the state.



The Seasonal Drought Outlook released on May 31 by the CPC, valid through August 31, 2025, indicates the potential for drought persistence in parts of northwestern, southwestern, and northeastern Iowa. Drought expansion is expected in the western third of Iowa, and no anticipated drought over the rest of the state. This outlook considers the impacts of recent precipitation as well as seasonal precipitation outlooks.



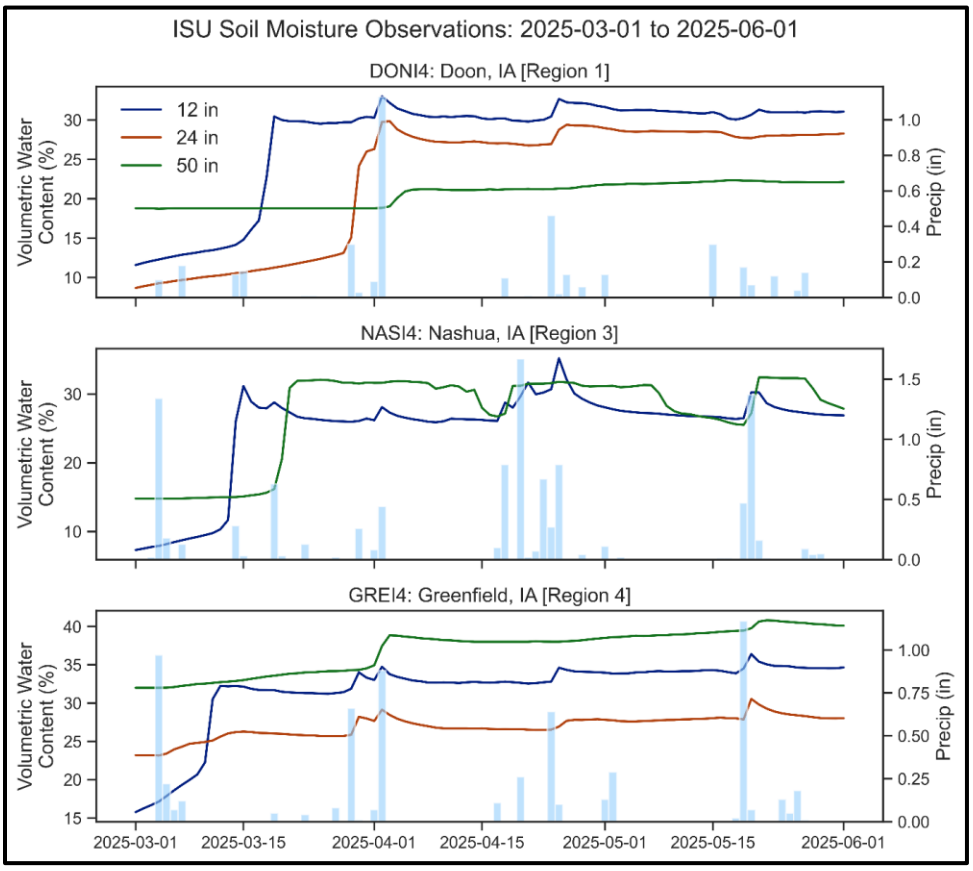
Other Water Resource Information

Border River Conditions

In their weekly update of Missouri River conditions dated June 3, 2025, the Army Corps of Engineers (USACE) indicates that the volume of water stored in the system of reservoirs is 51.4 Million Acre-Feet (MAF), which is about the same volume as last month. The annual runoff forecast updated on June 2, 2025, for the upper Missouri River Basin above Sioux City has been raised to 19.7 Million Acre Feet (MAF) or 77% of the average annual runoff. Drought or abnormally dry conditions are currently present in 75% of the Basin. Drought conditions in most of the upper Basin are likely to persist during June.

May Soil Moisture

The increase in temperature and evapotranspiration during May has reduced surface soil moisture saturation with respect to April, but sustained precipitation kept saturation around normal conditions, between 30 and 70 percent. Deeper soils less exposed to evapotranspiration hold more water, especially in southeastern Iowa.



Additional Information

This edition of the Water Summary Update continues to reflect use of the 2023 Iowa Drought Plan (IDP), which was developed as a collaborative effort between the Department of Natural Resources, the Department of Agriculture and Land Stewardship, and the Department of Homeland Security and Emergency Management. The IDP can be seen in its entirety on the DNR's website: The Iowa Drought Plan.

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