

## ILLINOIS WATER AND CLIMATE SUMMARY

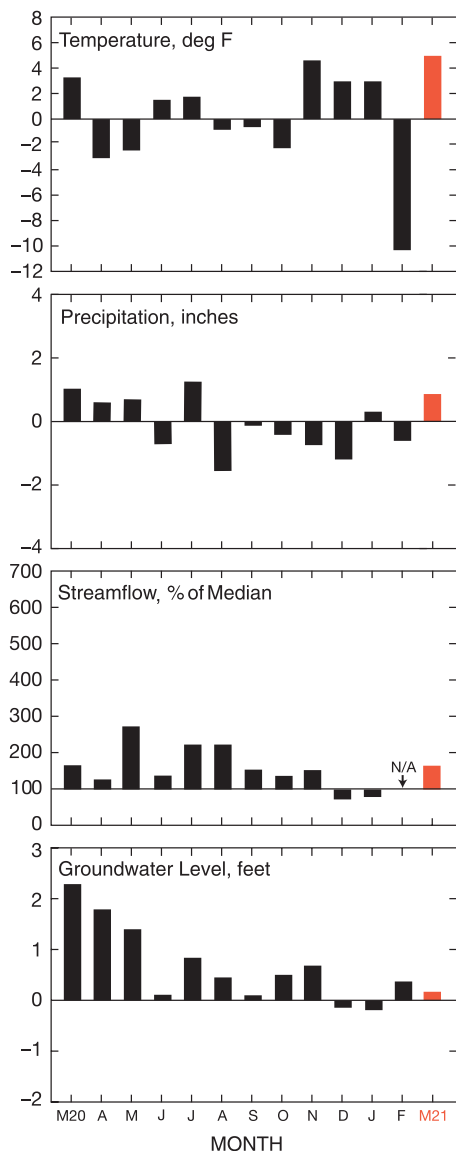


Figure 1. Statewide departures from normal.

### MARCH 2021 OVERVIEW

Temperatures and precipitation were above the long-term average in Illinois in March. Mean streamflow statewide was above the median for the month. Shallow groundwater levels were above the long-term depths.

**Air temperatures** statewide averaged 46.2°F in March, 4.9° above the long-term average (Figure 1). The southwest and southeast crop reporting districts (CRDs) were the warmest with an average of 50.7°F. The lowest regional average temperature was 42.0°F, reported by the northwest CRD. Departures from average ranged from 4.5° above average in the northwest CRD to 5.2° above average in the west CRD.

**Precipitation** statewide averaged 3.85 inches, 0.89 inches above the long-term average (Figure 1). The southeast CRD was the wettest with an average of 5.86 inches. The driest was the northeast CRD with an average of 1.35 inches. Departures from average ranged from 1.01 inches below average in the northeast CRD to 2.03 inches above average in the west-southwest CRD.

**Mean provisional streamflow** aggregated statewide was above the long-term median flow for March, about 170% of median (Figure 1). Monthly mean discharge values ranged mainly from normal to much above normal for March.

**Water surface levels** at the end of March were below the full pool or target level at 2 of 23 reporting reservoirs. At the end of March, Lake Shelbyville was 4.0 feet above the April 1 target level, Carlyle Lake was 2.6 feet above the April 1 target level, and Rend Lake was 5.3 feet above the spillway level. Lake Michigan's mean level was above its long-term mean for the month.

**Shallow groundwater levels** statewide were near the long-term average this month with an average departure of 0.19 feet above the period of record (Figure 1). Levels averaged 0.41 feet above February 2021 and 1.89 feet below March 2020 levels.

# Weather/Climate Information

— KEVIN GRADY

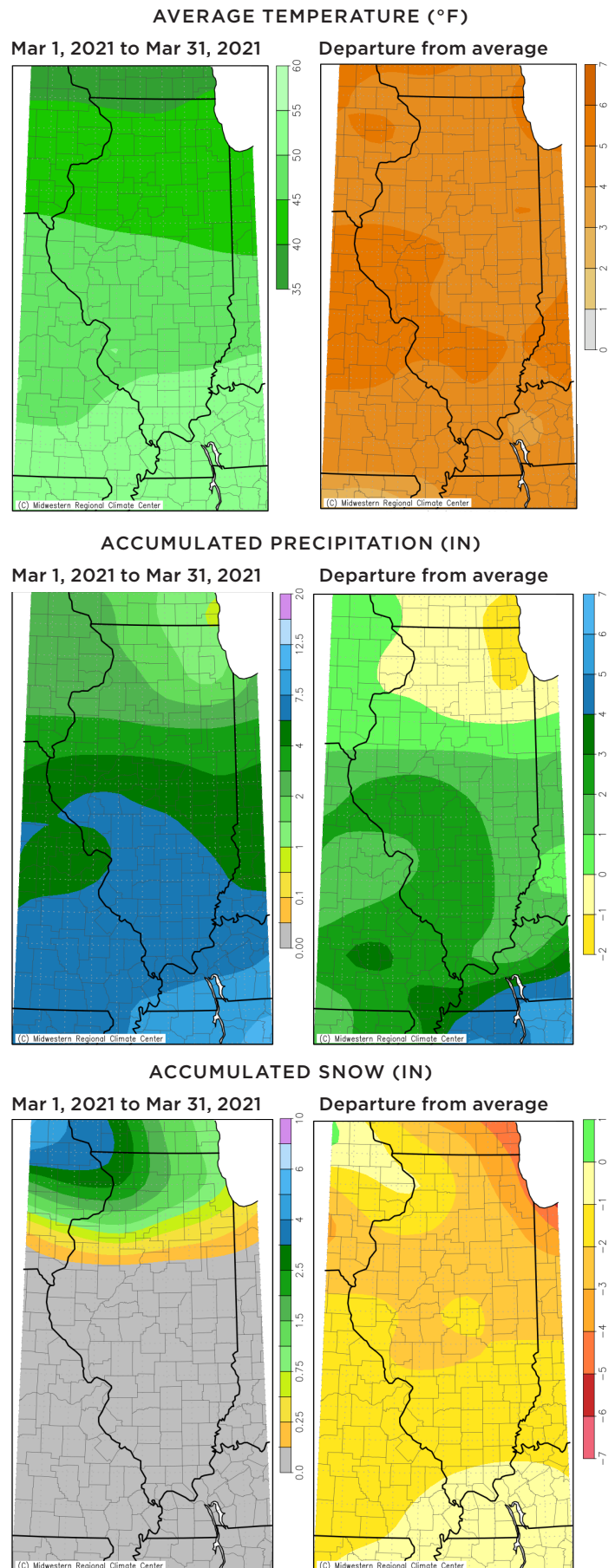
The following description of temperatures, precipitation, snow, severe weather, and drought comes from data compiled by networks that report to the National Oceanic and Atmospheric Administration (NOAA). These data are provisional and may change slightly over time.

March in Illinois was wetter and much warmer than average across most of the state.

**Temperatures** averaged 46.2°F, 4.9° above the long-term average (Table 1, Figure 2), tying March 2021 with March 2000 as the 11th warmest March on record in Illinois back to 1895. This also stands in very sharp contrast to the extreme cold Illinois experienced in February 2021, which was the 11th coldest February on record in the state. During the five-month period between November 2020 and March 2021, four out of the five months had statewide average temperatures at least 3° above average, with February being the notable exception. Monthly average temperatures in March 2021 ranged from around 40° in northern Illinois to the lower 50s in southern Illinois. Departures from average generally ranged 4 to 6° above average across most of the state for the month.

Following a warmer than average end to February, most of March was above average as well across most of Illinois. The second week of March was especially warm, with temperatures generally 10 to 12° above average between March 7 and 14 across most of the state. Many stations in northern Illinois reached their monthly maximum temperatures during this week, with most of the rest of the stations in Illinois reaching theirs during the last five days of the month. These monthly maximum temperatures generally ranged from the mid-60s in northern Illinois to around 80° in southern Illinois. The warmest reading of the month, 82°F, was recorded at a station near Harrisburg (Saline County) on March 28. Monthly minimum temperatures for most stations were generally recorded during the first few days of March, ranging from the lower teens in northern Illinois to around 30° in southern Illinois. The coldest reading of the month, 8°F, was recorded at a station near Stockton (Jo Daviess County) on March 2.

**Precipitation** averaged 3.85 inches in March, 0.89 inches above the long-term average (Table 1, Figure 2). Monthly totals generally increased from north to south across the state, ranging from around an inch in northeastern Illinois to around 6-7 inches in parts of southern Illinois. Following a dry February, March generally started dry as well across most of Illinois, with most areas to the north of the I-70 corridor receiving less than a tenth of an inch of precipitation the first 10 days of the month. A pattern shift around the middle of the month brought several rounds of storms and heavy rain to central and southern Illinois, quickly increasing monthly totals. Most areas to the south of the I-74 corridor received 4 inches or more of precipitation for the month in large part due to these systems. These totals were generally around an inch or more above average, with much of southwestern Illinois receiving around 2 inches above average. A station near



**Figure 2. Illinois temperature, precipitation, snow and their departures from average for March 2021.** Source: cli-MATE, Midwest Regional Climate Center. <https://mrcc.illinois.edu/CLIMATE>. Information accessed on April 8, 2021.

Harrisburg (Saline County) had the highest monthly total of 9.40 inches. Northern Illinois did not receive as much of this mid- and late-month precipitation. As a result, most areas to the north of the I-80 corridor had below average March precipitation totals, especially in northeastern Illinois around Chicago, where some monthly totals were 1-2 inches below average.

**Snow:** Following a very snowy February, measurable snow in March was largely confined to areas north of the I-74 corridor, due in large part to the well-above average temperatures statewide (Figure 2). Monthly totals of an inch or more were generally only reported along and to the north of the I-80 corridor, with the highest totals generally up to 3-4 inches in northwestern Illinois. The highest monthly total of 6.0 inches was recorded at a station near East Dubuque (Jo Daviess County). Nearly all stations with measurable snow recorded their entire monthly totals from one event that affected northern Illinois around March 15-16. Most of Illinois will often receive some measurable snow in March, so monthly totals across most of the state were around 1-2 inches below average, even in northern Illinois. The highest departures of up to 3-4 inches below average were in northeastern Illinois, especially around Chicago. O'Hare Airport's March total of 1.8 inches was 3.8 inches below average.

**Severe weather reports:** The NOAA Storm Prediction Center recorded 20 severe weather reports for March in Illinois: 3 for tornadoes, 5 for hail, and 12 for wind. (Multiple reports can be generated for a single event.) These reports all came during the last 10 days of March and included an EF-0 tornado near Mason City (Mason County) on March 23 and an EF-1 tornado in Madison County on March 27, as confirmed by the National Weather Service. These reports ended a period of over four months with no severe weather reports recorded anywhere in Illinois, going back to November 10, 2020.

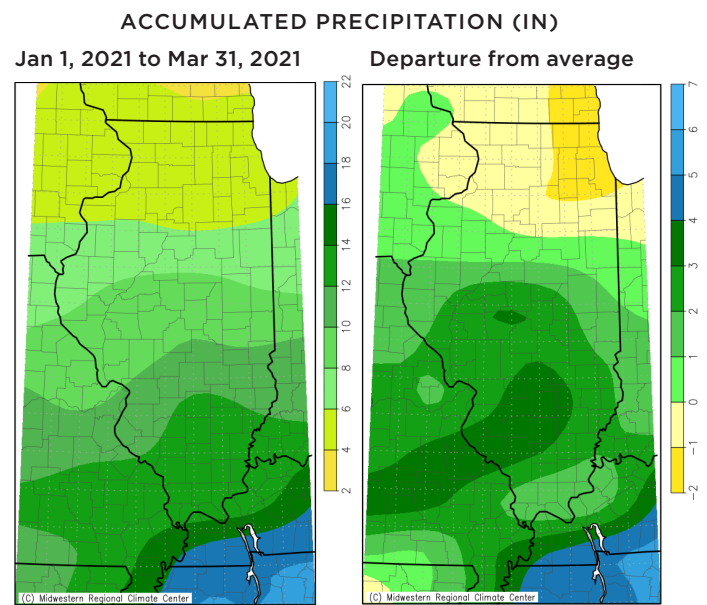
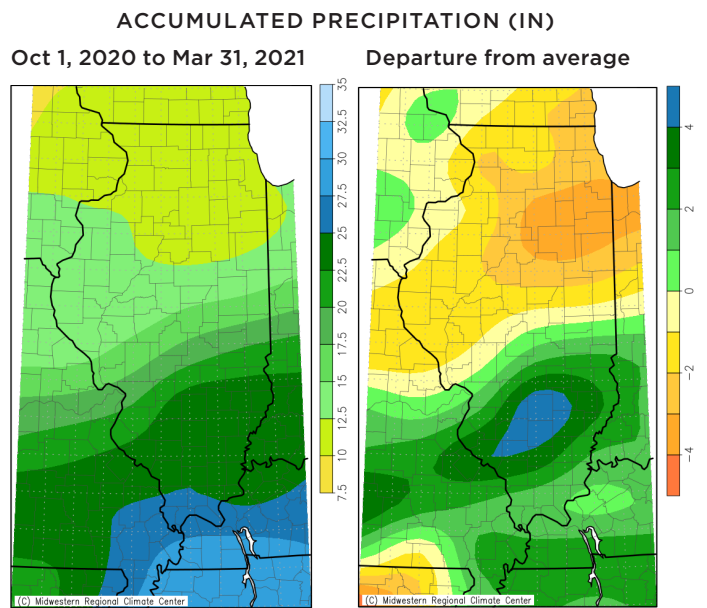
**Drought:** March began with drought and abnormally dry conditions in central Illinois after the area received below average precipitation throughout most of the previous six months. The United States Drought Monitor (USDM) depicted an area of abnormal dryness (D0) centered around the I-72 and I-74 corridors to the east of the Illinois River. This also included an area of moderate drought (D1) in east central Illinois along and to the east of I-57. Early March dryness and above average temperatures led to little change in conditions the first couple of weeks of the month. However, heavy precipitation mid-March in central Illinois brought about rapid improvements to much of the area. On the March 23 USDM map, D0 conditions were eliminated in central Illinois to the west of the US-51 corridor, and the D1 conditions in east-central Illinois improved to D0. This marked the first time Illinois was completely free of drought conditions (D1 or worse) since the August 18, 2020 map. By the end of the month, only areas to the north of the I-74 corridor were still experiencing D0 conditions.

At the same time, however, northern Illinois, especially northeastern Illinois, began to dry out after receiving below average precipitation throughout most of February and March. On the March 23 map, an area of abnormally dry D0 conditions was introduced along the Wisconsin border. On the March 30 map (Figure 4), this area expanded south through the Chicago area to connect with the area in north central Illinois. On this map, around 14% of Illinois was depicted as experiencing D0 conditions.

**Table 1 Temperature and Precipitation for March 2021**

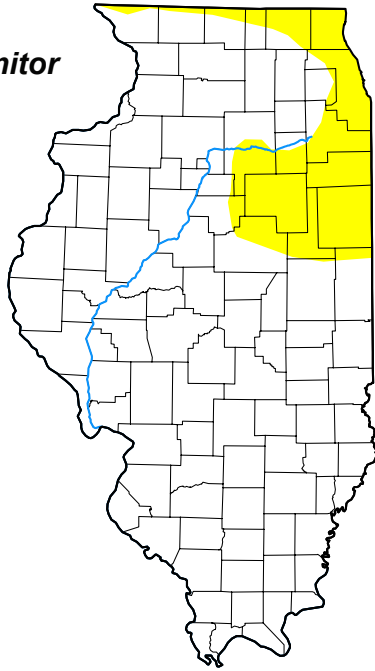
	Temp. (°F)	Departure from long-term avg. (1981-2010)	Precip. (in)	Departure from long-term avg. (1981-2010)
Illinois	46.2	+4.9	3.85	+0.89
CRD 1 (northwest)	42.0	+4.5	2.10	-0.34
CRD 2 (northeast)	42.5	+4.9	1.35	-1.01
CRD 3 (west)	45.8	+5.2	3.73	+1.05
CRD 4 (central)	45.3	+5.0	3.60	+0.92
CRD 5 (east)	44.4	+4.6	3.30	+0.64
CRD 6 (west southwest)	47.8	+4.9	4.95	+2.03
CRD 7 (east southeast)	47.8	+4.8	4.66	+1.39
CRD 8 (southwest)	50.7	+4.8	5.80	+1.97
CRD 9 (southeast)	50.7	+4.9	5.86	+1.70

Data from NOAA's National Centers for Environmental Information, accessed 4/8/2021.



**Figure 3. Illinois precipitation and precipitation departure from average for last 6 months (top) and year-to-date (bottom).** Source: cli-MATE, Midwestern Regional Climate Center. <https://mrcc.illinois.edu/CLIMATE>. Information accessed on April 8, 2021.

# U.S. Drought Monitor Illinois



**March 30, 2021**  
(Released Thursday, Apr. 1, 2021)  
Valid 8 a.m. EDT

### Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
<b>Current</b>	86.11	13.89	0.00	0.00	0.00	0.00
<b>Last Week</b> <i>03-23-2021</i>	84.48	15.52	0.00	0.00	0.00	0.00
<b>3 Months Ago</b> <i>12-29-2020</i>	54.89	28.75	14.34	2.02	0.00	0.00
<b>Start of Calendar Year</b> <i>12-29-2020</i>	54.89	28.75	14.34	2.02	0.00	0.00
<b>Start of Water Year</b> <i>09-29-2020</i>	42.28	54.03	3.69	0.00	0.00	0.00
<b>One Year Ago</b> <i>03-31-2020</i>	100.00	0.00	0.00	0.00	0.00	0.00

### Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

### Author:

Brad Pugh  
CPC/NOAA

## Illinois Climate Network (ICN)

— JENNIE ATKINS

The Illinois Climate Network (ICN) collects hourly weather and soil information from 19 stations across the state. ICN data for March are presented in Table 2.

**Wind speeds** increased again in March to a monthly average of 8.4 mph, 0.7 mph higher than in February but 0.2 mph lower than the network's long-term average. ICN Bondville was the windiest station of the month with both the highest average at 12.7 mph and the highest reported wind gust of 68.5 mph on March 18.

**Air temperatures** rose 22°F from February to a monthly average of 46°F, 3° above the network's long-term average. Highs for March averaged 74°F, 22° warmer than normal, and ranged from the mid-60s to the low 80s. However, the state still experienced typical cold weather as station lows were mainly in the teens and 20s. The highest recorded temperature was 80°F, reported at ICN Rend Lake on March 27. The lowest was 9°F, recorded at ICN St. Charles on March 2.

**Soil temperatures** increased 10 to 13°F from February to averages in the mid-40s. Temperatures at or below freezing were reported at all depths. Under bare soil, temperatures ranged from 31 to 76°F at the 2-inch depths and 32° to 69°F at 4 inches. Temperatures under sod ranged from 32 to 65°F at 4 inches and 31 to 59°F at 8 inches.

**Precipitation** averaged 4.08 inches in March, 1.37 inches above the long-term average and 2.03 inches more than in February. It was a particularly wet month for the southern Illinois stations with a regional average of 5.99 inches. The network's highest total was 7.78 inches, reported by ICN Carbondale. Soil moisture data will return to the IWCS next month.

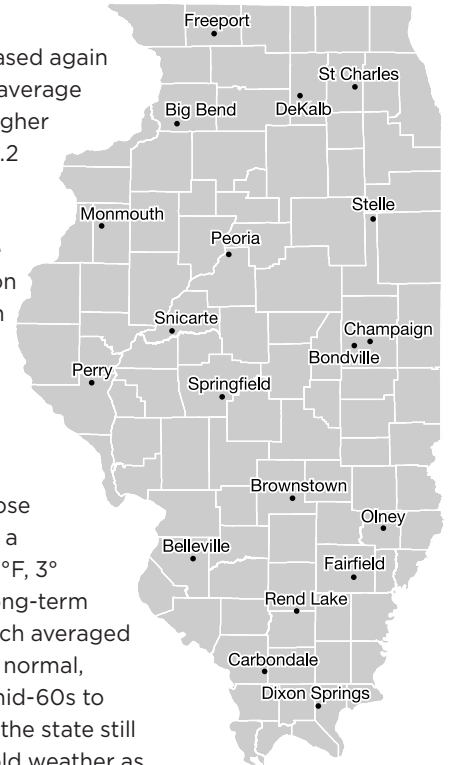


Figure 4. U.S. Drought Monitor report for Illinois. Source: U.S. Drought Monitor. Author: Brad Pugh, CPC/NOAA <https://droughtmonitor.unl.edu>, accessed on April 8, 2021.

**Table 2. Data from the Illinois Climate Network (ICN), March 2021**

Station	Wind			Air Temperature (°F)			Total Solar Radiation (MJ/m <sup>2</sup> )
	Avg. Speed (mph)	Avg. Direction (°)	Max. Gust (mph)	Max.	Min.	Avg.	
Belleville	8.3	155.8	50.9	78.7	28.2	49.6	469.3
Big Bend	9.0	160.7	41.5	69.0	15.8	41.8	440.9
Bondville	12.7	157.4	68.5	72.6	21.5	44.4	457.9
Brownstown	8.0M	184.2M	41.3M	78.1M	24.2M	48.3M	251.6M
Carbondale	7.4	165.9	37.2	79.9M	23.7	51.1	482.3
Champaign	5.6	156.9	38.8	74.3	20.0	45.2	454.6
DeKalb	10.4	178.8	42.7	67.6	9.7	40.2	477.1
Dixon Springs	4.8	152.7	34.4	79.3	25.8	51.7	447.3
Fairfield	7.6	141.2	34.5	77.3	25.0	49.8	483.3
Freeport	6.3	175.3	37.2	66.5	11.9	39.9	446.8
Monmouth	11.9	161.0	43.0	70.1	22.1	43.6	450.5
Olney	6.6	153.1	34.0	76.8	23.9	49.5	491.7
Peoria	8.9	159.8	39.1	71.8	16.9	44.7	444.9
Perry	8.0	160.6	36.2	72.3	22.7	47.3	437.9
Rend Lake	6.4	153.5	30.8	80.3	28.2	50.7	471.6
Snicarte	10.9	151.7	40.9	72.0	21.7	46.3	450.4
Springfield	7.2	154.9	35.1	72.2	23.7	46.8	456.3
St. Charles	8.1	169.5	36.9	67.7	9.0	41.6	466.6
Stelle	12.2	168.9	41.2	69.7	18.4	42.5	449.0

**Table 2. continued**

Station	Average Relative Humidity (%)	Total Precip. (in)	Average Dew Point (°F)	Total Potential Evapotranspiration (in)	Average Soil Temperature (°F) at			
					4" under Sod	8" under Sod	4" under Bare Soil	2" under Bare Soil
Belleville	66.7	4.84	37.7	3.45	48.8	48.6	49.2	49.4
Big Bend	73.8	2.70	33.1	2.74	40.9	39.9	42.7	42.0
Bondville	73.6	3.71	35.5	2.99	43.0	44.7	45.2	45.4
Brownstown	67.3M	1.99M	36.9M	1.60M	49.2M	47.8M	49.3M	49.4M
Carbondale	72.9	7.78	41.1	3.45	51.5	49.3	50.3	50.5
Champaign	70.6	4.09	35.1	2.93	46.7	46.4	47.0	47.0
DeKalb	75.9	1.91	32.5	2.72	40.3	38.4	41.1	40.7
Dixon Springs	66.6	6.22	39.6	3.23	51.0	50.7	51.5	53.5
Fairfield	68.6	4.96	38.8	3.35	49.6	49.2	50.5	52.4
Freeport	72.2	2.39	30.9	2.60	39.4	38.9	39.0	39.4
Monmouth	73.3	3.09	34.7	2.91	40.4	39.2	43.0	42.8
Olney	66.6	4.39	37.8	3.39	49.6	50.0M	51.1	50.9
Peoria	66.8	3.34	33.2	3.05	44.1	42.9	44.2	44.5
Perry	65.3	5.45	34.9	3.19	46.0	45.5	46.7	47.6
Rend Lake	67.2	7.07	39.2	3.37	51.0	51.0	53.2	51.7
Snicarte	69.1	5.18	35.5	3.20	47.1	46.7	47.7	48.6
Springfield	67.2	4.49	35.4	3.08	47.4	45.8	46.7	47.2
St. Charles	69.1	1.43	31.0	2.95	41.9	40.5	43.6	43.1
Stelle	71.8	2.52	33.1	2.93	42.8	41.7	43.0	43.0

M = Missing data.

# Surface Water Information

— BILL SAYLOR

**River and stream discharge and stage data** are obtained from gaging stations operated by the U.S. Geological Survey (USGS) or the U.S. Army Corps of Engineers (USACE). The USGS gaging station network is supported, in part, by the Illinois Department of Natural Resources Office of Water Resources, the Illinois State Water Survey (ISWS), and the USACE. Provisional discharge data are obtained from the USGS.

Table 3 lists the provisional peak stage for the current month compared to flood stage at selected streamgaging stations located on the Illinois, Mississippi, and Ohio Rivers. Peak stage is represented here by morning readings posted daily by the USACE or the National Weather Service. Flood stage is defined locally for each gage location.

The lower Illinois River and the Mississippi River below the Illinois River crested above the local flood stages at various locations in March. In early March, the Ohio River rose above the local flood stages along the Illinois border and remained above the flood stage at Cairo throughout the month.

**Provisional monthly mean flows** for this month for 26 streamgaging stations located throughout Illinois are shown in Table 4, compared to statistics of past record of monthly mean flows at those stations for the same month. Both recent and long-term data are retrieved from USGS online data services following the end of the month. Years of record values in Table 4 represent the number of past monthly values included in the Table 4 statistics. At some stations, the available record may not be continuous. Additional source data may be available from USGS.

The statewide percent of historical mean flow and percent of historical median flow are calculated by dividing the sum of the average flows this month at stations in Table 4 by the sum of the historical mean and median flows calculated for the month, respectively, at the same stations. This method is intended to weight individual observations proportionately in the aggregate comparison. (The Illinois River and Rock River stations are excluded from the statewide calculation because other rivers listed in Table 4 contribute to their flow.)

Mean provisional flow aggregated statewide, using the available monthly mean data shown this month in Table 4, was above the median value for March (approximately 170 percent of the median) and above the mean for March (approximately 145 percent of the mean). Monthly mean discharge values ranged mostly from normal to much above normal for March. Monthly mean streamflow of the Kankakee River at Momence was below normal for March.

**Water-Supply Lakes and Major Reservoirs.** Table 5 lists reservoirs in Illinois, their normal pool or target water surface elevation, and other data related to observed variations in water surface elevations. Reservoir levels are obtained from a network of cooperating reservoir operators who are contacted each month by ISWS staff for the current water levels. Reservoir levels are reported in terms of their difference from normal pool (or target level). The average of the month-end readings

for the period of record is reported in terms of the difference from normal pool or target level (column 6 of Table 5), and the number of years of record for each reservoir also is given (column 7). Most reservoirs serve as public water supplies, with the exceptions noted in the last column.

Compared to end-of-February water levels at 23 reservoirs for which levels were reported last month and this month, reported end-of-March water levels were lower at 9 reservoirs, higher at 9 reservoirs, and about the same as at the end of February at 5 reservoirs. For the 23 reservoirs with measurements reported at the end of March, water levels were below normal target pool or spillway level at 2 reservoirs, above normal target pool or spillway level at 17 reservoirs, and at about full pool level at 4 reservoirs. Carlinville supply in March was from Lake 2.

**Major Reservoirs.** Compared to water levels at the end of February, at the end of March the water level at Lake Shelbyville was 4.4 feet higher, Carlyle Lake was 2.1 feet higher, and Rend Lake was 0.8 feet higher. At the end of March, Lake Shelbyville was 4.0 feet above the April 1 target level, Carlyle Lake was 2.6 feet above the April 1 target level, and Rend Lake was 5.3 feet above the spillway level.

**Great Lakes.** Current month mean and end-of-month values are provisional and are relative to International Great Lakes Datum 1985. The March 2021 mean level for Lake Michigan was 580.5 feet. The monthly mean level one year ago (March 2020) was 581.4 feet. The long-term average lake level for March is 578.5 feet, based on 1918–2020 data. In this period of record, the lowest mean level for Lake Michigan for March occurred in 1964 at 576.1 feet, and the highest mean level for March occurred in 2020 at 581.4 feet. The month-end level of Lake Michigan was 580.5 feet. All values are provided by the U.S. Army Corps of Engineers Detroit District.

**Table 3. Peak Stages for Major Rivers during March 2021**

River	Station	River mile*	Flood stage (feet)*	Peak stage (feet)**	Date
Illinois	Morris	263.1	16	12.0	01
	La Salle	224.7	20	19.8	02
	Peoria	164.6	18	15.1	05
	Havana	119.6	14	14.6	26
	Beardstown	88.6	14	15.9	23
	Hardin	21.5	25	26.9	21
Mississippi	Dubuque	579.9	17	12.2	19
	Keokuk	364.2	16	10.8	19
	Quincy	327.9	19	16.5	19
	Grafton	218.0	18	21.7	20
	St. Louis	180.0	30	31.2	20
	Chester	109.9	27	33.6	21
	Thebes	43.7	33	36.4	22
Ohio	Cairo	2.0	40	46.4	14,23

**Notes:**  
 \* River mile and flood stage from *River Stages in Illinois: Flood and Damage Data*, Illinois Department of Natural Resources, Office of Water Resources, August 2004 (and Addendum, February 2007), and from the National Weather Service.  
 \*\*Peak stage based on daily a.m. readings, not instantaneous peak. Stage data obtained from U.S. Army Corps of Engineers.

**Table 4. Provisional Mean Flows, March 2021**

Station	Drainage area (sq mi)	Years of record*	2021 mean flow (cfs)	Long-term flows*		Flow condition	Percent chance of exceedance	Days of data this month
				Mean (cfs)	Median (cfs)			
Rock River at Rockton	6,363	81	8,136	7,584	7,073	normal	42	31
Rock River near Joslin	9,549	81	13,428	11,438	10,430	normal	37	31
Pecatonica River at Freeport	1,326	106	1,747	1,798	1,604	normal	46	31
Green River near Geneseo	1,003	85	2,051	1,094	919	above normal	11	31
Edwards River near New Boston	445	86	1,164	525	413	much above normal	8	31
Kankakee River at Momence	2,294	108	2,306	3,374	3,277	below normal	81	31
Iroquois River near Chebanse	2,091	96	2,852	3,180	2,790	normal	48	31
Fox River at Dayton	2,642	106	4,168	3,407	3,110	normal	33	31
Vermilion River at Pontiac	579	78	588	756	672	normal	60	31
Spoon River at Seville	1,636	106	2,676	1,728	1,288	above normal	18	31
LaMoine River at Ripley	1,293	99	2,616	1,322	888	above normal	15	31
Bear Creek near Marceline	349	77	694	376	247	above normal	16	31
Mackinaw River near Congerville	767	76	960	949	719	normal	38	31
Salt Creek near Greenview	1,804	79	1,791	2,114	1,751	normal	48	31
Sangamon River at Monticello	550	111	582	714	613	normal	53	31
South Fork Sangamon near Rochester	867	71	1,701	995	693	above normal	19	31
Illinois River at Valley City	26,743	82	39,055	34,817	30,905	normal	38	31
Macoupin Creek near Kane	868	92	1,622	885	574	above normal	15	31
Vermilion River near Danville	1,290	99	2,329	1,740	1,446	normal	32	31
Kaskaskia River at Vandalia	1,940	51	4,013	2,957	2,539	normal	36	31
Shoal Creek near Breese	735	78	2,321	961	776	much above normal	8	31
Embarras River at Ste. Marie	1,516	109	4,022	2,198	1,887	above normal	13	31
Skillet Fork at Wayne City	464	103	2,245	830	729	much above normal	5	31
Little Wabash River below Clay City	1,131	105	4,291	1,778	1,502	much above normal	6	31
Big Muddy River at Plumfield	794	50	3,133	1,372	1,179	much above normal	8	31
Cache River at Forman	244	98	1,335	626	455	much above normal	9	31

Notes:  
 Source streamflow data are obtained from the U.S. Geological Survey.  
 N/A = not available (e.g., due to ice or equipment problems).

Much below normal flow = 90-100% chance of exceedance.

Below normal flow = 70-90% chance of exceedance.

Normal flow = 30-70% chance of exceedance.

Above normal flow = 10-30% chance of exceedance.

Much above normal flow = 0-10% chance of exceedance.

\*As calculated from past monthly mean flow values retrieved from U.S. Geological Survey (USGS) data services this month.

**Table 5. Reservoir Levels in Illinois, March 2021**

Reservoir	County	Normal pool or target level (feet)	Current level difference from normal or target	Monthly change (feet)	Average difference from normal or target (feet)	Years of record	February reported pumpage (million gallons)
Altamont	Effingham	582.0	+0.1	-0.3	-0.5	37	5.8
Bloomington	McLean	719.5	+0.2	0.0	-0.7	34	N/A
Carlinville	Macoupin	571.1	+0.2	-0.1	-0.1	34	21.9
Carlyle <sup>(1)</sup>	Clinton	444.0	+2.6	+2.1	+1.4	43	N/A
Decatur <sup>(1,3)</sup>	Macon	612.5	+0.5	-0.2	+0.8	37	943.0
Evergreen <sup>(4)</sup>	Woodford	720.0	+0.3	+1.2	-1.0	30	N/A
Glenn Shoals <sup>(2)</sup>	Montgomery	590.0	+1.3	0.0	+0.2	26	w/Hillsboro
Highland	Madison	500.0	+0.4	-0.9	+0.2	32	26.8
Hillsboro <sup>(2)</sup>	Montgomery	589.0	N/A	N/A	+0.1	24	32.7
Jacksonville <sup>(2)</sup>	Morgan	644.0	N/A	N/A	-0.1	17	w/Mauvaise Terre
Kinkaid	Jackson	420.0	+0.1	-0.4	+0.2	32	54.6
Lake of Egypt	Williamson	500.0	+0.3	-1.3	+0.3	27	N/A
Mattoon	Coles	632.0	0.0	0.0	-0.1	27	w/Paradise
Mauvaise Terre <sup>(2)</sup>	Morgan	588.5	N/A	N/A	+0.1	22	no meter
Mt. Olive (new)	Macoupin	600.0	N/A	N/A	-0.4	16	w/Mt. Olive (old)
Mt. Olive (old)	Macoupin	654.0	N/A	N/A	-0.1	22	4.4
Pana	Christian	641.6	0.0	-0.2	-0.3	37	N/A
Paradise	Coles	685.0	0.0	0.0	0.0	31	53.5
Paris (east) <sup>(5)</sup>	Edgar	660.0	+0.3	-0.1	+0.2	11	Not PWS
Paris (west) <sup>(5)</sup>	Edgar	660.1	+0.3	-0.1	+0.2	11	w/Paris (east)
Raccoon <sup>(1,5)</sup>	Marion	477.0	+0.6	+0.8	0.0	13	95.0
Rend	Franklin	405.0	+5.3	+0.8	+3.8	43	N/A
Salem <sup>(3)</sup>	Marion	546.5	-0.3	-0.1	-0.2	26	27.3
Shelbyville <sup>(1)</sup>	Shelby	596.0	+4.0	+4.4	+0.6	43	Not PWS
Sparta <sup>(3)</sup>	Randolph	497.0	N/A	N/A	-0.6	23	N/A
Spring <sup>(3,4)</sup>	McDonough	654.0	+0.1	0.0	+0.1	37	41.2
Springfield <sup>(1,3)</sup>	Sangamon	560.0	-0.5	+1.0	-0.5	37	569.0
Taylorville	Christian	590.0	+0.2	+0.2	0.0	28	47.2
Vermilion <sup>(4)</sup>	Vermilion	581.7	0.0	+0.1	-0.2	35	189.8

**Notes:**

Normal pool and target level datum is NGVD 1929.

Current levels reported represent water surface levels at the end of the month, not the monthly average.

Average difference from normal or target level is the arithmetic average of reported month-end values for the period of record indicated.

Years of record = total number of monthly readings included in month-end average. Total period of record may be longer.

Not PWS = not a public water supply.

N/A = not available.

(1) Target operating level may vary. Seasonal target levels this month represent April 1 values.

(2) Instrumentation not available to measure height of water elevation above spillway.

(3) Natural inflow can be supplemented by other sources.

(4) Normal pool elevations have changed during period of record reported.

(5) Years of record and average since supply switched to different source. Period of reporting is longer.



# Groundwater Information

— JENNIE ATKINS

**Comparison to Period of Record.** Shallow groundwater levels in 26 observation wells were above the long-term average for March. Levels were 0.19 feet above average and ranged from 11.24 feet below to 4.65 feet above normal levels (Table 6).

**Comparison to February 2021.** Shallow groundwater levels were above those of the previous month. Levels averaged 0.41 feet above and ranged from 8.53 feet below to 6.02 feet above February 2021 levels.

**Comparison to March 2020.** Shallow groundwater levels in March were below levels from one year ago. Levels averaged 1.89 feet below and ranged from 12.27 feet below to 1.45 feet above March 2020 levels.

**Table 6. Month-End Shallow Groundwater Level Data Sites, March 2021**

Well name	County	Well depth (feet)	This month's reading (depth to water, feet)	15-year avg. level (feet)	Deviation from		
					Period of record avg. (feet)	Previous month (feet)	Previous year (feet)
Belleville	St Clair	15.00	1.77	-0.09	-0.17	-0.77	0.01
Bondville	Champaign	21.00	3.74	-1.19	-1.20	3.34	N/A
Bondville (ICN)	Champaign	20.00	1.62	0.97	1.04	4.31	0.83
Boyleston	Wayne	23.00	N/A	N/A	N/A	N/A	N/A
Brownstown	Fayette	15.00	0.09	0.54	0.65	-0.09	-0.04
Carbondale	Jackson	26.00	2.77	-0.57	-0.56	-0.46	-0.34
Coffman	Pike	28.00	N/A	N/A	N/A	N/A	N/A
Crystal Lake	McHenry	18.00	3.57	0.27	0.96	0.50	0.03
DeKalb	DeKalb	25.00	13.13	-11.08	-11.24	-8.53	-12.27
Fairfield	Wayne	21.00	1.70	0.18	0.17	-1.28	-0.61
Fermi Lab	DuPage	15.00	4.37	-0.15	0.13	-0.22	-1.94
Freeport	Stephenson	26.00	14.09	3.23	3.31	6.02	-3.45
Galena	JoDaviess	25.00	20.80	-0.89	0.33	0.30	-2.22
Good Hope	McDonough	30.00	4.09	0.67	1.67	1.60	0.16
Greenfield	Greene	22.00	10.13	-1.12	-2.06	3.20	-6.03
Janesville	Coles	11.00	4.53	-0.09	-0.01	-2.58	-0.39
Monmouth	Warren	27.00	8.70	0.57	0.76	-2.25	0.41
Mt. Morris	Ogle	55.00	18.57	-1.61	0.44	4.68	-9.68
Olney	Richland	19.00	1.13	-0.13	-0.10	-1.13	-0.32
Perry	Pike	20.00	1.60	4.60	4.65	1.91	-0.52
Rend Lake	Jefferson	21.00	1.10	1.65	1.73	-0.16	-0.07
SE College	Saline	11.00	2.01	-0.57	-0.61	-2.01	-0.73
Snicarte	Mason	42.00	36.69	0.69	0.43	-0.96	1.45
Sparta	Randolph	27.00	2.65	1.02	1.78	-1.35	0.25
Springfield	Sangamon	20.00	2.15	2.31	2.31	4.35	-0.57
St. Charles	Kane	21.00	24.62	-2.32	-1.36	1.78	-11.52
St. Peter	Fayette	15.00	1.81	-0.54	-0.21	-0.34	-0.05
SWS #2	St. Clair	80.00	11.36	0.35	2.17	0.68	0.38
				<b>-0.13</b>	<b>0.19</b>	<b>0.41</b>	<b>-1.89</b>

Notes: N/A = Data not available.

**Data sources for this publication include the following:**

- CPC - Climate Prediction Center, <https://www.cpc.ncep.noaa.gov/index.php>
- ISWS - Illinois State Water Survey, <https://www.isws.illinois.edu>
- MRCC - Midwestern Regional Climate Center, <https://mrcc.illinois.edu>
- NCEI - National Centers for Environmental Information, <https://www.ncei.noaa.gov>
- NWS - National Weather Service, <https://www.nws.noaa.gov>
- SPC - Storm Prediction Center, <https://www.spc.noaa.gov>
- USACE - U.S. Army Corps of Engineers, <http://rivergages.com>, <https://www.lre.usace.army.mil>
- USDM - U.S. Drought Monitor, <https://droughtmonitor.unl.edu>
- USGS - U.S. Geological Survey, <https://waterdata.usgs.gov/il/nwis>
- WARM - Water and Atmospheric Resources Monitoring Program, <https://www.isws.illinois.edu/warm>

ILLINOIS STATE WATER SURVEY

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