ILLINOIS
Illinois State Water Survey
PRAIRIE RESEARCH INSTITUTE

April 2020

ILLINOIS WATER AND CLIMATE SUMMARY

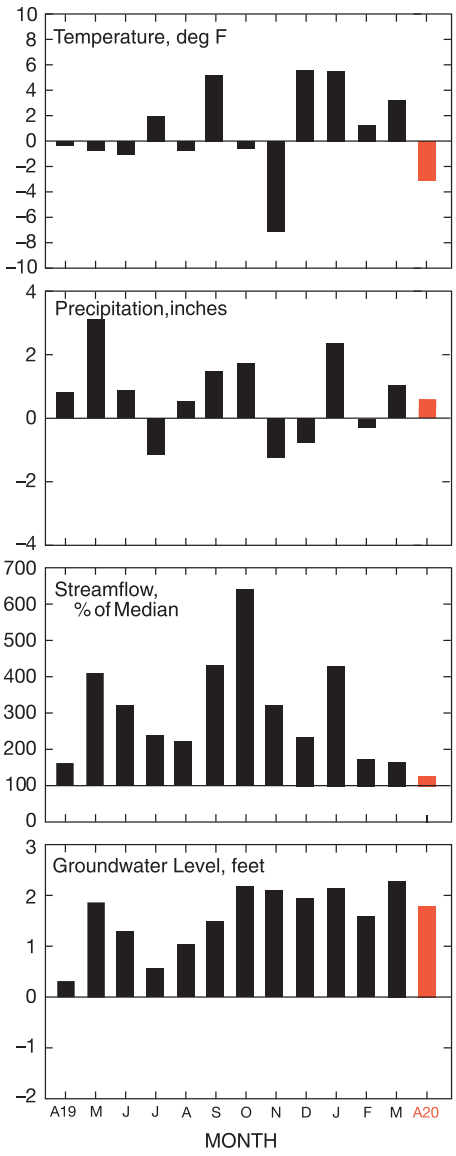

Figure 1. Statewide departures from normal.

APRIL 2020 OVERVIEW

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

Air temperatures averaged 49.6°F in April, 3.0° below the long-term average (Figure 1). The southwest crop reporting district (CRD) was the warmest with an average of 53.1°F. The lowest regional temperature was 46.3°F, reported by the northeast CRD.

Precipitation averaged 4.26 inches, 0.48 inches above the long-term average (Figure 1). The central CRD was the wettest with an average of 5.70 inches. The driest was the northwest CRD with 2.89 inches.

Soil moisture at depths of 2 inches rose 7% in April with a month-end average of 0.44 water fraction by volume (wfv). Similar but smaller increases occurred at 4 to 8 inches. At depths of 20 inches or more, soil moisture remained high and showed little change over the month.

Mean provisional streamflow aggregated statewide was slightly above the long-term median flow for April, about 115% of median (Figure 1). Monthly mean discharge values ranged mostly from normal to above normal for April. At the end of April, most reaches of the Illinois River and the Mississippi River below the Illinois River were above the local flood stages. The Ohio River was above the local flood stages at the beginning of April and remained above the flood stage at Cairo throughout the month.

Water surface levels at the end of April were below the full pool or target level at 1 of 24 reporting reservoirs. At the end of April, Lake Shelbyville was 1.1 feet above the May 1 target level, Carlyle Lake was 0.8 feet above the May 1 target level, and Rend Lake was 4.8 feet above the spillway level. Lake Michigan's mean level exceeded the previous record high monthly mean level for April (in 102 years of record).

Shallow groundwater levels statewide were above normal this month with an average departure of 1.86 feet from the period of record (Figure 1). A decrease of 0.41 feet in departures was observed from the deviation in normal groundwater levels between March and April. Levels averaged 0.10 feet below March 2020 and 0.46 feet above April 2019 levels.

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Weather/Climate Information

— KEVIN GRADY

The following description of temperatures, growing degree days, 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.

April in Illinois was colder and wetter than average across most of the state.

Temperatures averaged 49.6°F, 3.0° below the long-term average (Table 1, Figure 2a), making April the first month with temperatures below average in Illinois since November. Monthly average temperatures ranged from the mid-40s in northern Illinois to the mid-50s in far southern Illinois. Most stations recorded their monthly maximum temperatures on April 7, 8, or 9, as above average temperatures carried over from the end of March through the first nine days of the month. These maximum temperatures generally ranged from the mid-70s in northern Illinois to the mid-80s in southern Illinois. The warmest reading of the month, 89°F, was recorded at a station near Prairie City (McDonough County) on April 9.

A strong cold front then moved through the state on April 9–11, dropping temperatures well below average. From April 11 to 20, temperatures remained 8–10° below average. Most stations recorded their monthly minimum temperatures between April 14 and 19, generally ranging from around 20°F in northern Illinois to around 30°F in southern Illinois. The lowest reading of the month, 19°F, was recorded at a station near Galena (Jo Daviess County) on April 16. Temperatures generally remained below average for the rest of the month after this period.

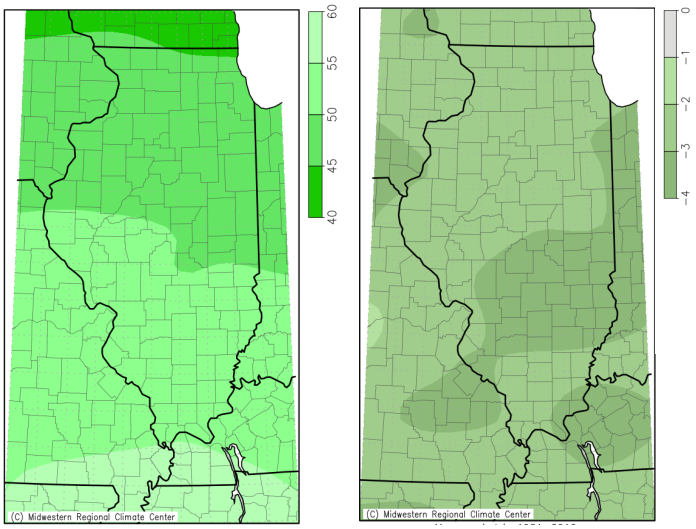
Table 1 Temperature and Precipitation for April 2020

	Temp. (°F)	Departure from long-term avg. (1981–2010)	Precip. (in)	Departure from long-term avg. (1981–2010)
Illinois	49.6	-3.0	4.26	+0.48
CRD 1 (northwest)	46.9	-2.8	2.89	-0.54
CRD 2 (northeast)	46.3	-2.9	4.59	+1.15
CRD 3 (west)	49.3	-2.9	3.71	-0.05
CRD 4 (central)	49.3	-2.6	5.70	+2.08
CRD 5 (east)	48.2	-3.1	4.54	+0.93
CRD 6 (west southwest)	50.9	-3.1	5.05	+1.26
CRD 7 (east southeast)	50.6	-3.4	4.28	+0.30
CRD 8 (southwest)	53.1	-3.1	3.52	-0.67
CRD 9 (southeast)	52.9	-3.1	3.78	-0.58

Data from NOAA's National Centers for Environmental Information, accessed 5/8/2020.

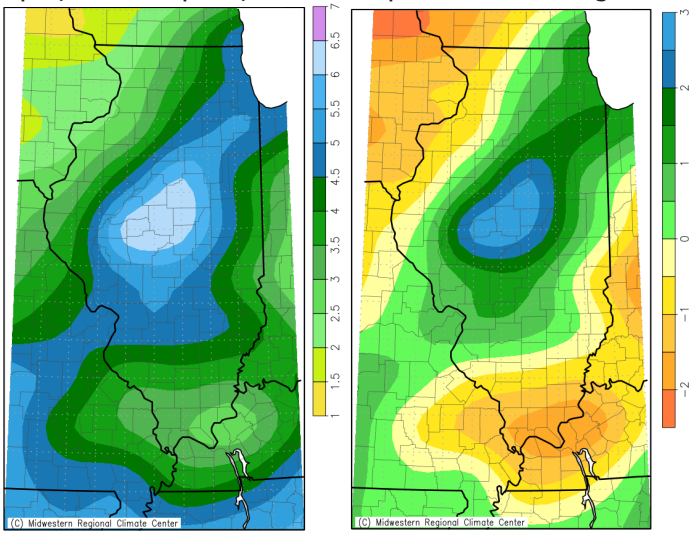
AVERAGE TEMPERATURE (°F)

Apr 1, 2020 to Apr 30, 2020 | Departure from average



ACCUMULATED PRECIPITATION (IN)

Apr 1, 2020 to Apr 30, 2020 | Departure from average



ACCUMULATED SNOW (IN)

Apr 1, 2020 to Apr 30, 2020 | Departure from average

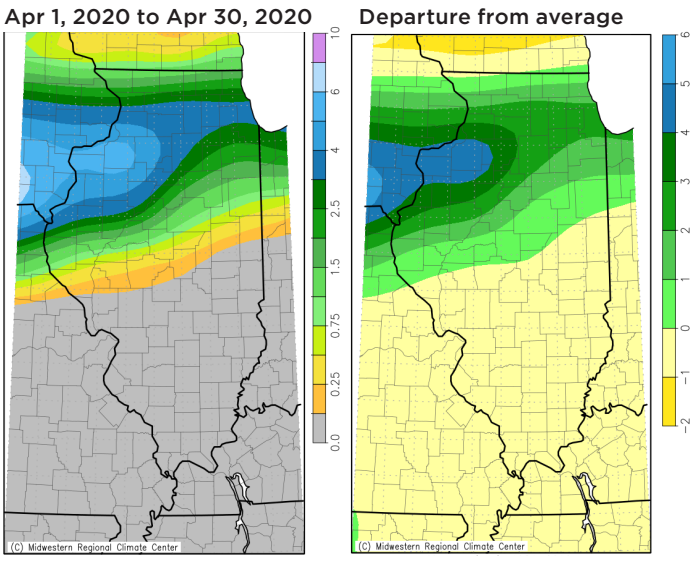


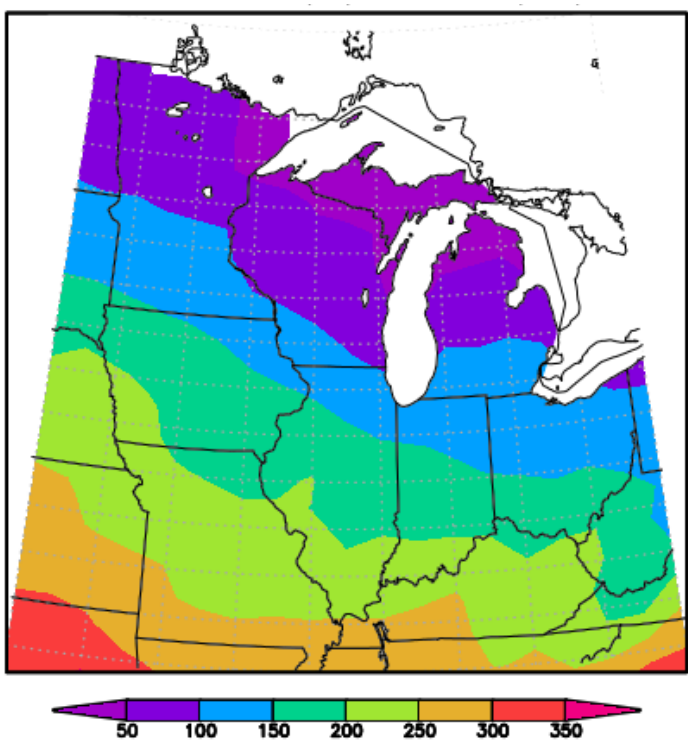
Figure 2a. Illinois temperature, precipitation, snow and their departures from average for April 2020. Source: cli-MATE, Midwestern Regional Climate Center. http://mrcc.illinois.edu/CLIMATE. Information accessed on May 8, 2020.

Growing degree days (DD, base 50°, from April 1) ranged from around 100 DD in northeastern Illinois to around 250 DD in far southern Illinois (Figure 2b). This was below the long-term average across the entire state, ranging from around 50 DD below average in northwestern Illinois to around 90 DD below average in southern Illinois.

Precipitation averaged 4.26 inches in April, 0.48 inches above the long-term average (Table 1, Figure 2a). The beginning of April was dry across the state, and most areas to the east and south of the Illinois River received less than 50 percent of their average precipitation the first 20 days of the month. However, a series of heavy, widespread rain events in the last week or so of April offset the dry start to the month with many areas averaging above normal, especially along the I-55 corridor between Chicago and St. Louis. Monthly totals generally ranged from around 2 inches in northwestern Illinois to over 7 inches in the middle part of the state in the areas near Bloomington, Springfield, and Decatur. The highest monthly total was 7.80 inches, recorded at a station near Havana (Mason County). April precipitation throughout most of central and northeastern Illinois was 1–3 inches above average. Northwestern Illinois was drier than average by up to 1 inch and so was southern Illinois by 1 to 2 inches. These areas did not receive as much of the precipitation during the last week of the month.

Snow: Most areas to the north of the I-72 corridor saw measurable snow in April (Figure 2a). Nearly all the snow fell during the cold period in the middle of the month, with the highest totals in northwestern Illinois in the area near the Quad Cities. This was in large part due to a snowstorm in the area the night of April 16, which produced widespread totals around 3–4 inches or higher, with some local amounts around 6 inches. The highest monthly snowfall total in Illinois of 8.9 inches was recorded in this area at a station near Kewanee (Henry County). Overall, monthly snowfall totals in the area generally ranged from 3 to 6 inches. Areas around Chicago generally received 2 to 3 inches, with totals quickly dropping off to the south toward I-72.

TOTAL MGDD FROM 4/1/2020 TO 4/30/2020



MGDD DEPARTURE FROM 4/1/2020 TO 4/30/2020

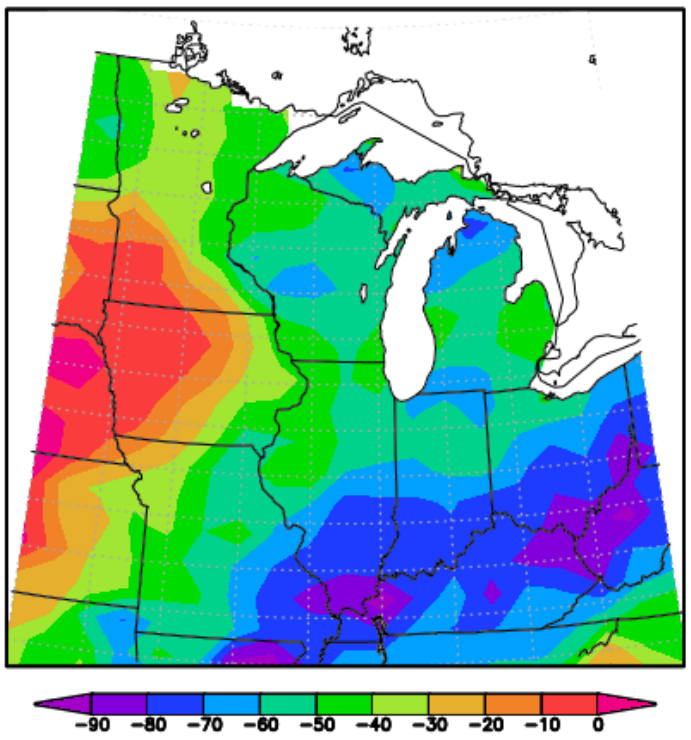


Figure 2b. Illinois growing degree days and departure from average through the end of April. Source: Midwestern Regional Climate Center. http://mrcc.illinois.edu, accessed on May 1, 2020.

Severe weather reports: The NOAA Storm Prediction Center recorded 98 severe weather reports for April in Illinois, 41 for hail and 57 for wind. (Multiple reports can be generated for a single event.) A notable hail event occurred the evening of April 7 across northern Illinois with reports of 3-inch hail in Stephenson County and near Winnebago (Winnebago County). Another severe weather event occurred the afternoon and evening of April 8, as a storm system moved through western and central Illinois, producing widespread wind and hail damage. This included reports of 3-inch hail near Sherman (Sangamon County) and 80 mph winds near Bement (Piatt County).

Drought: The United States Drought Monitor reported Illinois free of drought and abnormally dry conditions throughout April (Figure 4). This was despite the below average precipitation that most of the state received the first three weeks of the month, leading to drier soils and below average streamflows in some places by mid-April. However, the impacts from these conditions were considered low, as they were largely favorable for beginning agricultural activity in many areas. The late-month precipitation also helped improve deficits in many areas. However, some drier conditions remained in the northwestern and southern parts of the state at month's end.

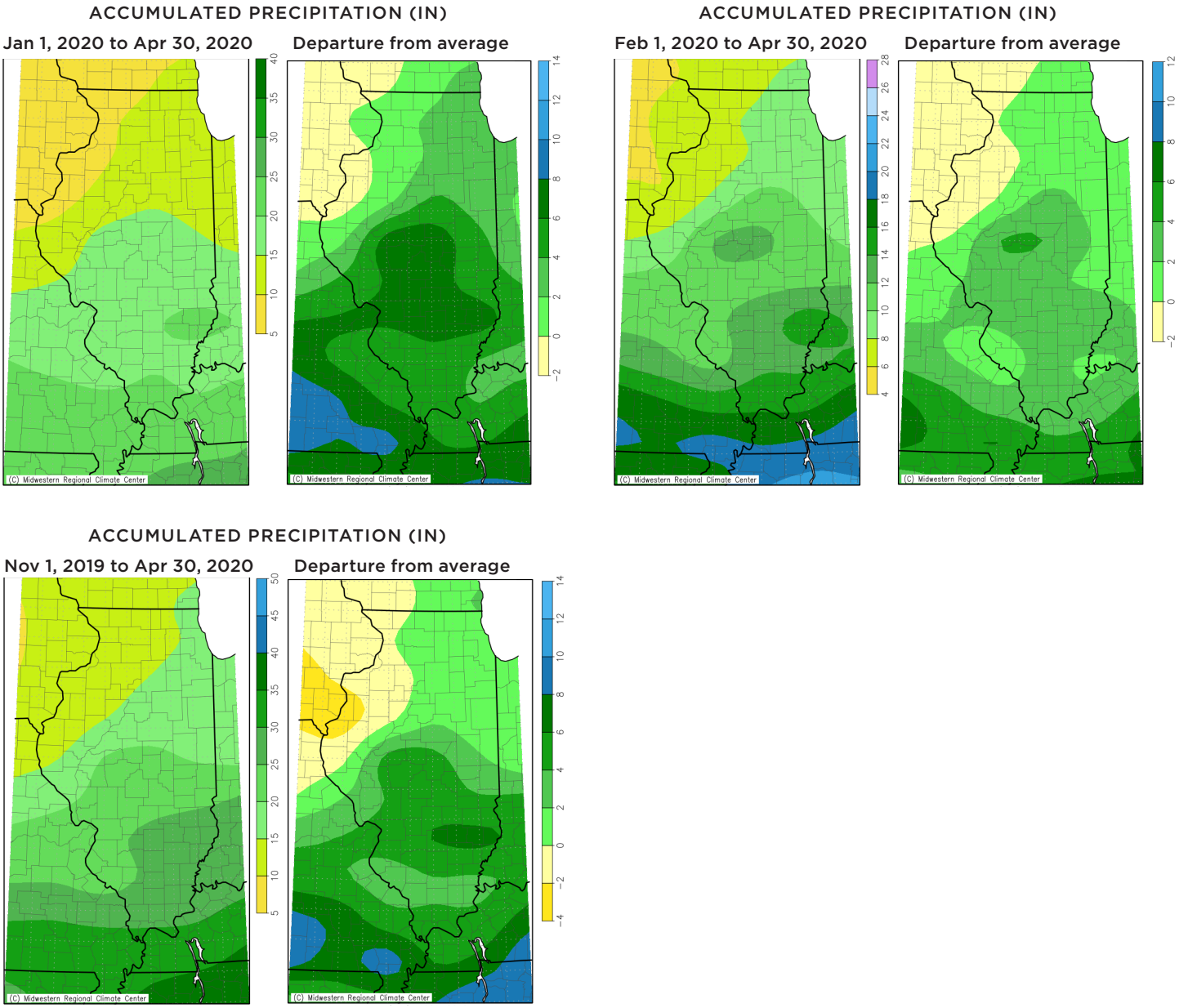
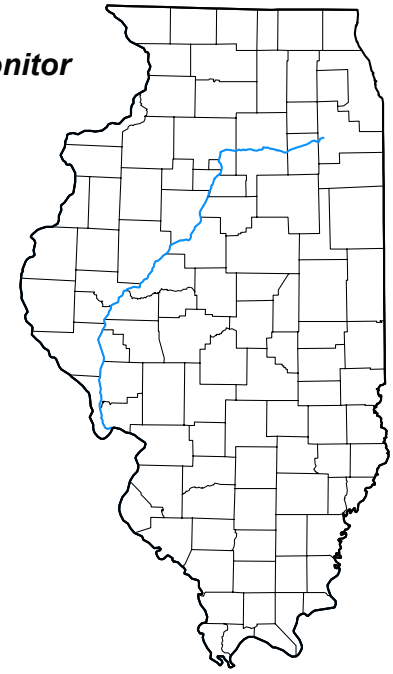


Figure 3. Illinois precipitation and precipitation departure from average for year-to-date (top left), last 3 months (top right), and last 6 months (bottom). Source: cli-MATE, Midwestern Regional Climate Center. http://mrcc.illinois.edu/CLIMATE. Information accessed on May 8, 2020.

U.S. Drought Monitor

Illinois



April 28, 2020

(Released Thursday, Apr. 30, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week *04-21-2020*	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago *01-28-2020*	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year *12-31-2019*	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year *10-01-2019*	82.16	7.06	10.59	0.19	0.00	0.00
One Year Ago *04-30-2019*	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:

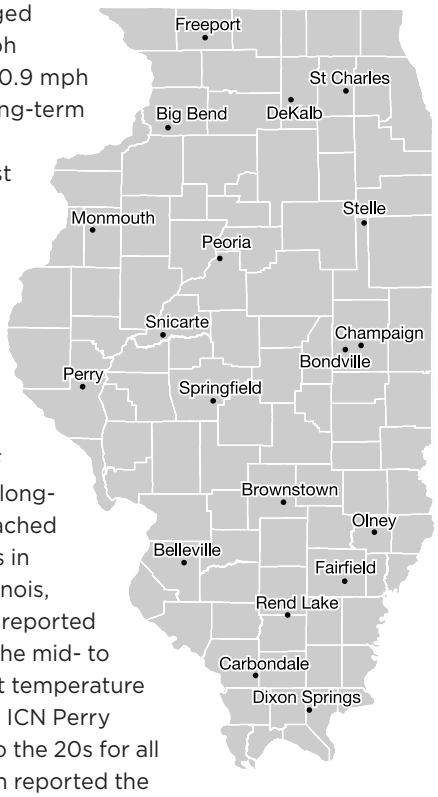
Deborah Bathke
National Drought Mitigation Center

Figure 4. U.S. Drought Monitor report for Illinois. Source: U.S. Drought Monitor. Author: Deborah Bathke, National Drought Mitigation Center http://droughtmonitor.unl.edu, accessed on May 8, 2020.

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 April are presented in Table 2.



Wind speeds averaged 7.9 mph in April, 0.1 mph less than in March and 0.9 mph below the network's long-term average. ICN Bondville had the month's highest average with 12.4 mph. The highest reported wind gust was 74.2 mph, recorded at the Stelle station on April 8.

Air temperatures rose 5.7° from March to an average of 50.2°F in April, 3.2° below the long-term average. Highs reached into the 80s for stations in southern and central Illinois, while northern stations reported monthly maximums in the mid- to high 70s. April's highest temperature was 87.6°F, recorded at ICN Perry on April 8. Lows fell into the 20s for all stations. ICN Monmouth reported the month's lowest temperature of 20.7°F recorded on April 16.

Soil temperatures increased 5–6° in April with monthly averages from 54.1°F (2" under bare soil) to 52.7°F (8" under sod). Temperatures were within 1° of the long-term averages. Under bare soil, temperatures ranged from 30.8°F to 89.8°F at depths of 2 inches and 34.7°F to 85.3°F at 4 inches. Temperatures under sod ranged from 37.2°F to 77.7°F at 4 inches and 40.6°F to 68.2°F at 8 inches.

Precipitation varied greatly across the network in April. ICN Dixon Springs had the lowest total for the month with 1.88 inches recorded, 2.68 inches below the station's monthly long-term average. The highest total was 6.68 inches from the Springfield station, 3.08 inches above its long-term average. Overall, precipitation averaged 4.25 inches or 0.65 inches above usual.

Most of the rain fell at the end of the month. The network averaged 3.35 inches between April 23 and 30, 79% of the monthly total.

Soil moisture declined for most of April. The first three weeks saw a 25% drop in moisture levels at the 2-inch depths. However, heavy rains at the end of the month led to soil moisture increases in all regions of the state. Overall, 2-inch soil moisture increased 7% in April, ending the month with a network average of 0.44 water fraction by volume (wfv).

Similar but smaller patterns were seen at depths of 4 and 8 inches. Moisture levels remained high at depths of 39 and 59 inches, showing little change over the month.

Table 2. Data from the Illinois Climate Network (ICN), April 2020

Station	Wind			Air Temperature (°F)			Total Solar Radiation (MJ/m²)
	Avg. Speed (mph)	Avg. Direction (°)	Max. Gust (mph)	Max.	Min.	Avg.	
Belleville	8.2	209.7	58.4	87.1	29.0	54.0	569.7
Big Bend	8.4	215.9	37.0	78.3	24.6	48.7	542.4
Bondville	12.4	207.9	49.9	82.0	21.9	48.8	564.2
Brownstown	7.8M	206.5M	39.3M	84.9	26.2	52.0	561.1
Carbondale	6.7	220.8	38.6	87.4	27.2	53.9	575.3
Champaign	5.1	200.6	32.6	83.3	23.4	49.5	533.5
DeKalb	8.9	202.4	37.4	78.8	21.8	45.7	564.1
Dixon Springs	4.8	216.4	40.6	84.1	24.9	54.2	531.2
Fairfield	6.7	211.3	39.0	84.4	26.5	52.5	581.5
Freeport	6.5	208.6	34.8	76.3	21.3	45.9	539.4
Monmouth	12.1	213.7	47.0	80.9	20.7	48.7	588.7
Olney	5.8	204.9	40.6	83.6	26.3	52.4	559.1
Peoria	8.3	208.2	38.9	81.1	26.7	49.4	560.1
Perry	7.6	215.4	47.9	87.6	27.3	50.6	565.7
Rend Lake	5.3	213.1	38.1	86.7	29.3	53.5	551.6
Snicarte	10.9	203.3	47.7	87.5	24.3	50.0	558.4
Springfield	6.9M	217.8M	38.4M	86.7M	26.6M	50.6M	561.3
St. Charles	7.0	183.6	43.1	80.0	22.6	46.1	529.4
Stelle	11.6	197.2	74.2	80.6	23.2	47.4	532.9

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	69.7	4.74	42.9	4.12	55.0	53.9	53.7	58.4
Big Bend	70.0	3.05	38.0	3.60	49.4	48.2	51.7	54.3
Bondville	73.3	5.15	39.3	3.76	50.0	51.9	52.7	52.7
Brownstown	68.0	5.05	40.7	3.91M	54.1	53.1	52.6	52.9
Carbondale	73.5	2.25	44.1	4.05	58.1	56.1	56.5	56.6
Champaign	71.2	5.28	39.3	3.58	54.7	54.2	54.9	55.3
DeKalb	73.1	3.59	36.6	3.47	49.5	48.2	51.2	50.7
Dixon Springs	67.2	1.88	42.0	3.82	57.8	57.5	57.6	60.2
Fairfield	70.7	6.40	42.1	3.99	55.6	54.9	56.0	57.9
Freeport	67.6	2.10	34.6	3.42	50.1	47.5	48.4	48.9
Monmouth	68.9	2.09	37.6	3.91	49.0	48.0	50.9	50.3
Olney	68.3	4.48	41.1	3.93	55.7	55.6	56.2	56.1
Peoria	65.0	5.52	36.8	3.86	51.6	48.2	50.7	51.1
Perry	68.2	4.26	39.1	3.90	53.7	52.7	53.1	54.0
Rend Lake	66.2	3.40	41.4	4.00	58.8	58.6	57.5	57.6
Snicarte	65.7	5.73	37.7	4.02	54.9	54.4	53.6	55.7
Springfield	63.1	6.68	37.2M	3.28M	53.8	52.3	54.0	54.5
St. Charles	69.7	4.55	35.6	3.39	49.4	48.3	50.8	50.5
Stelle	70.9	4.60	37.3	3.56	47.8	46.6	50.1	50.0

M = Missing data.

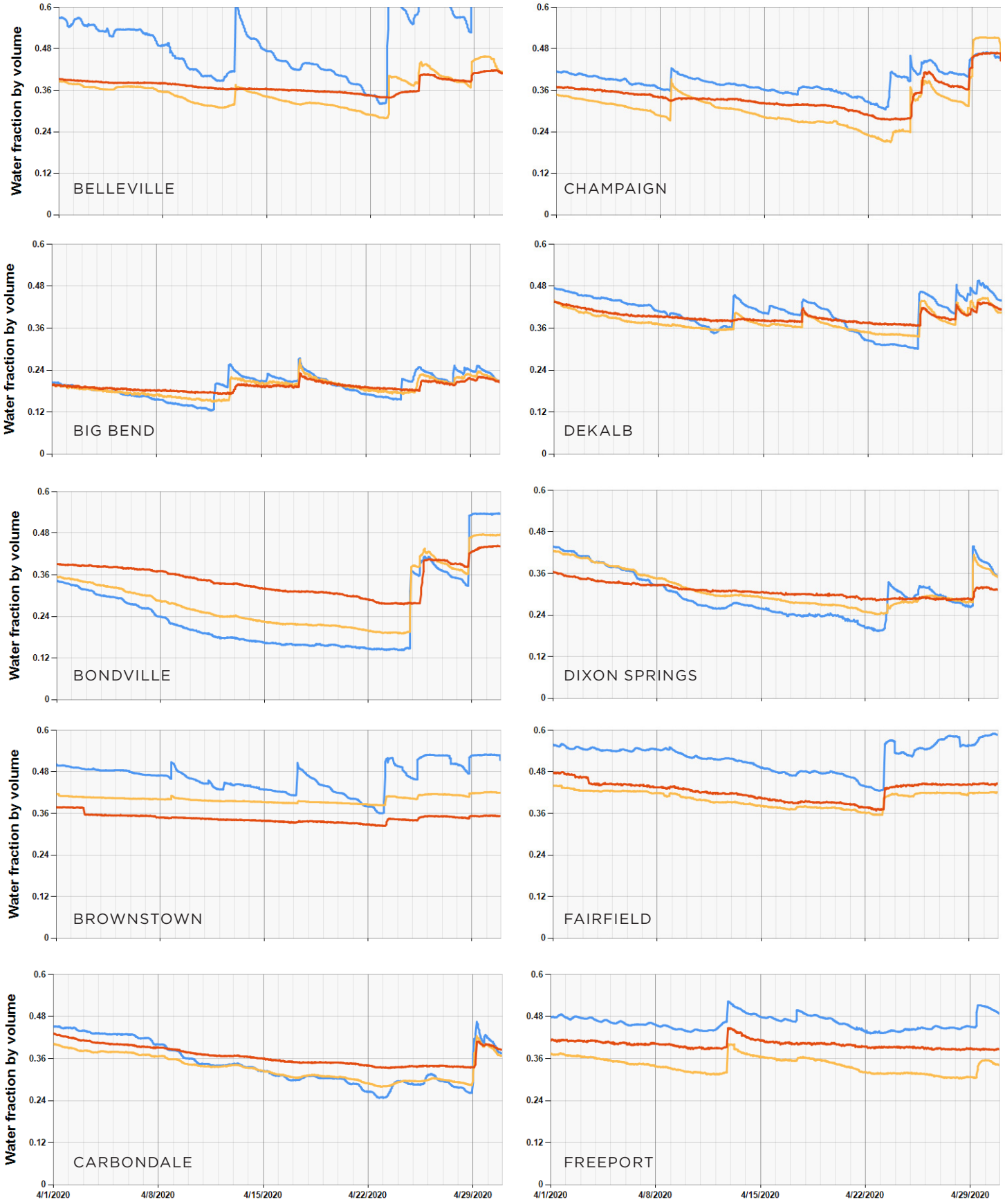


Figure 5. April soil moisture levels at ICN stations: 2 in, 4 in, and 8 in

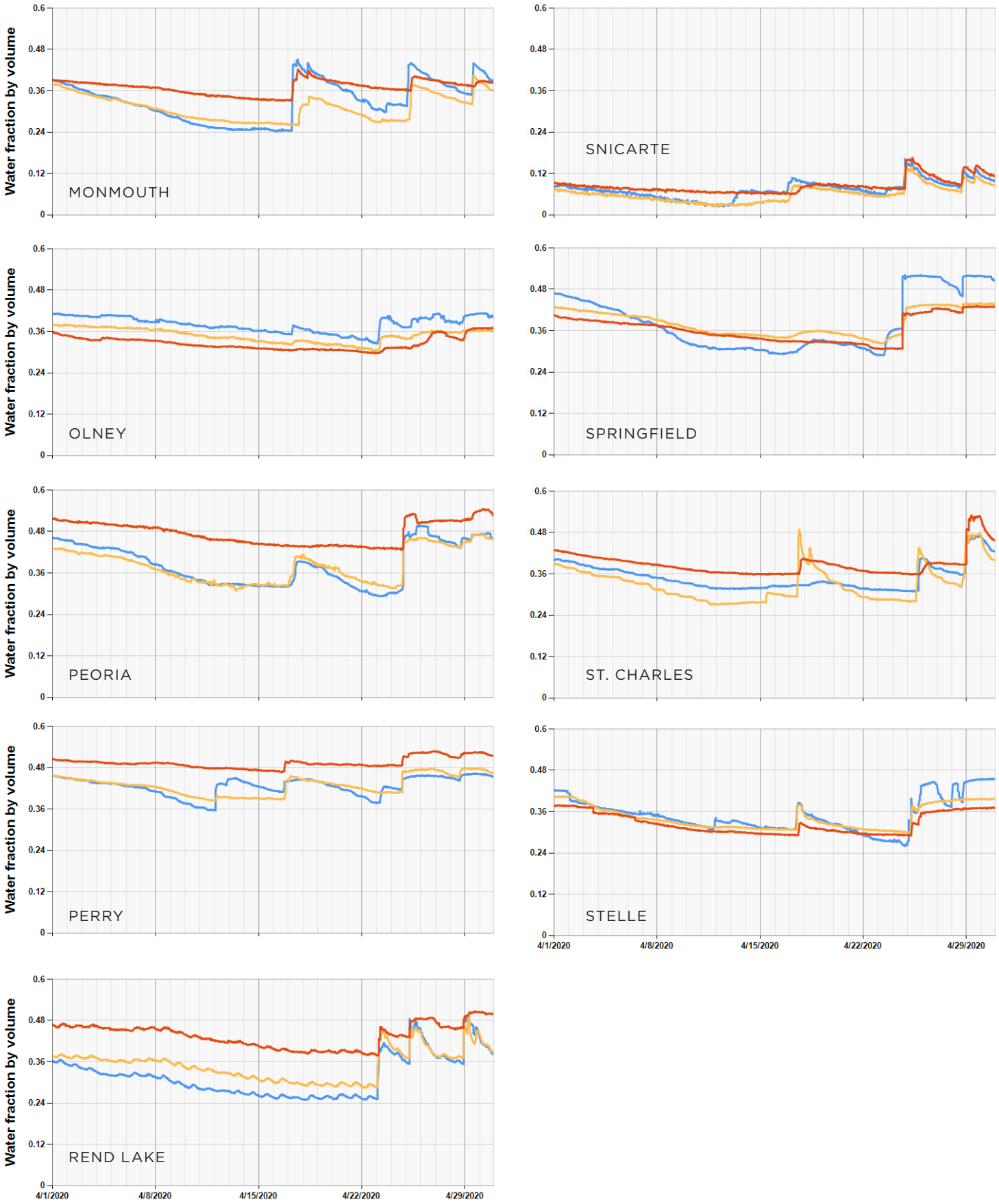


Figure 5. April soil moisture levels at ICN stations: 2 in, 4 in, and 8 in

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.

Most reaches of the Illinois River and most Mississippi River gage locations downstream of the Illinois River confluence were above the local flood stages at the end of April. The Mississippi River was above the flood stages at Grafton and at Chester throughout the month. The Ohio River was above the local flood stages along the Illinois border at the beginning of April and was 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 slightly above the median value for April (approximately 115 percent of the median) and slightly below the mean for April (approximately 95 percent of the mean). Monthly mean discharge values ranged mostly from normal to above normal for April.

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-March water levels at 24 reservoirs for which levels were reported last month and this month, reported end-of-April water levels were lower at 8 reservoirs, higher at 14 reservoirs, and about the same as last month at 2 reservoirs. For the 24 reservoirs with measurements reported at the end of April, water levels were below normal target pool or spillway level at 1 reservoir, above normal target pool or spillway level at 19 reservoirs, and at about full pool level at 4 reservoirs.

Major Reservoirs. Compared to water levels at the end of March, at the end of April the water level at Lake Shelbyville was 2.3 feet higher, Carlyle Lake was 0.4 feet lower, and Rend Lake was 0.6 feet lower. At the end of April, Lake Shelbyville was 1.1 feet above the May 1 target level, Carlyle Lake was 0.8 feet above the May 1 target level, and Rend Lake was 4.8 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 April 2020 mean level for Lake Michigan was 581.7 feet. The monthly mean level one year ago (April 2019) was 580.6 feet. The long-term average lake level for April is 578.7 feet, based on 1918–2019 data. In this period of record, the lowest mean level for Lake Michigan for April occurred in 1964 at 576.2 feet, and the highest mean level for April occurred in 1986 at 581.5 feet. The month-end level of Lake Michigan was 581.8 feet. All values are provided by the U.S. Army Corps of Engineers Detroit District.

Table 3. Peak Stages for Major Rivers during April 2020

River	Station	River mile*	Flood stage (feet)*	Peak stage (feet)**	Date
Illinois	Morris	263.1	16	15.2	30
	La Salle	224.7	20	22.7	30
	Peoria	164.6	18	16.0	30
	Havana	119.6	14	16.8	30
	Beardstown	88.6	14	18.6	30
	Hardin	21.5	25	27.3	30
Mississippi	Dubuque	579.9	17	19.6	09
	Keokuk	364.2	16	16.1	01
	Quincy	327.9	17	19.5	01-02
	Grafton	218.0	18	22.3	01
	St. Louis	180.0	30	28.9	01
	Chester	109.9	27	32.2	01
	Thebes	43.7	33	35.8	01
Ohio	Cairo	2.0	40	52.6	01

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).
**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, April 2020

Station	Drainage area (sq mi)	Years of record*	2020 mean flow (cfs)	Long-term flows*		Flow condition	Percent chance of exceedence	Days of data this month
				Mean (cfs)	Median (cfs)			
Rock River at Rockton	6,363	80	10,586	7,749	6,793	above normal	24	30
Rock River near Joslin	9,549	80	16,473	11,323	10,074	above normal	20	30
Pecatonica River at Freeport	1,326	105	2,055	1,299	1,071	above normal	16	30
Green River near Geneseo	1,003	83	1,109	1,071	959	normal	42	30
Edwards River near New Boston	445	85	360	551	401	normal	56	30
Kankakee River at Momence	2,294	107	3,162	3,488	3,508	normal	59	30
Iroquois River near Chebanse	2,091	95	1,617	3,172	2,926	below normal	74	30
Fox River at Dayton	2,642	105	4,282	3,386	3,086	above normal	29	30
Vermilion River at Pontiac	579	77	896	808	673	normal	37	30
Spoon River at Seville	1,636	105	1,971	1,908	1,527	normal	40	30
LaMoine River at Ripley	1,293	99	1,803	1,577	1,234	normal	39	30
Bear Creek near Marceline	349	76	440	415	292	normal	35	30
Mackinaw River near Congerville	767	75	1,553	1,063	919	above normal	26	30
Salt Creek near Greenview	1,804	78	3,808	2,397	2,001	above normal	18	30
Sangamon River at Monticello	550	110	609	800	682	normal	56	30
South Fork Sangamon near Rochester	867	69	1,117	1,080	781	normal	39	30
Illinois River at Valley City	26,743	81	39,543	37,497	34,520	normal	41	30
Macoupin Creek near Kane	868	92	1,105	1,142	687	normal	35	30
Vermilion River near Danville	1,290	98	1,466	1,905	1,620	normal	56	30
Kaskaskia River at Vandalia	1,940	50	2,338	2,642	2,066	normal	52	30
Shoal Creek near Breese	735	77	656	1,056	739	normal	54	30
Embarras River at Ste. Marie	1,516	108	1,397	2,318	1,834	normal	62	30
Skillet Fork at Wayne City	464	102	696	830	733	normal	53	30
Little Wabash River below Clay City	1,131	105	993	1,762	1,332	normal	56	30
Big Muddy River at Plumfield	794	49	1,175	1,533	1,313	normal	51	30
Cache River at Forman	244	97	449	598	528	normal	59	30

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 exceedence.
Below normal flow = 70-90% chance of exceedence.
Normal flow = 30-70% chance of exceedence.
Above normal flow = 10-30% chance of exceedence.
Much above normal flow = 0-10% chance of exceedence.
***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, April 2020

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	March reported pumpage (million gallons)
Altamont	Effingham	582.0	+0.2	+0.2	–0.4	34	5.5
Bloomington	McLean	719.5	+0.5	+0.3	–0.5	33	N/A
Carlinville	Macoupin	571.1	+0.1	–0.1	0.0	33	23.3
Carlyle[1]	Clinton	445.0	+0.8	–0.4	+1.0	42	N/A
Decatur[1,3]	Macon	614.3	+0.4	+1.1	–0.3	36	1,036.5
Evergreen[4]	Woodford	720.0	+0.2	+0.1	–0.8	29	N/A
Glenn Shoals[2]	Montgomery	590.0	+1.5	+0.5	+0.5	25	w/Hillsboro
Highland	Madison	500.0	+1.4	+1.0	+0.3	31	28.8
Hillsboro[2]	Montgomery	589.0	N/A	N/A	+0.2	24	40.3
Jacksonville[2]	Morgan	644.0	N/A	N/A	–0.1	20	w/Mauvaise Terre
Kinkaid	Jackson	420.0	0.0	–0.1	+0.3	31	64.2
Lake of Egypt	Williamson	500.0	+0.1	–0.3	+0.3	26	N/A
Mattoon	Coles	632.0	0.0	0.0	–0.1	24	w/Paradise
Mauvaise Terre[2]	Morgan	588.5	N/A	N/A	+0.1	22	no meter
Mt. Olive (new)	Macoupin	600.0	N/A	N/A	0.0	13	w/Mt. Olive (old)
Mt. Olive (old)	Macoupin	654.0	N/A	N/A	–0.2	22	5.6
Pana	Christian	641.6	+0.2	+0.1	–0.3	35	N/A
Paradise	Coles	685.0	0.0	0.0	–0.1	30	54.7
Paris (east)[5]	Edgar	660.0	+0.5	+0.3	+0.3	10	Not PWS
Paris (west)[5]	Edgar	660.1	+0.5	+0.3	+0.3	10	w/Paris (east)
Raccoon[1][5]	Marion	477.0	+0.3	–0.6	–0.2	12	88.8
Rend	Franklin	405.0	+4.8	–0.6	+3.9	42	N/A
Salem[3]	Marion	546.5	+0.1	+0.3	–0.5	25	23.2
Shelbyville[1]	Shelby	599.7	+1.1	+2.3	–0.6	42	Not PWS
Sparta[3]	Randolph	497.0	+0.1	+0.3	–0.6	23	N/A
Spring[3,4]	McDonough	654.0	+0.3	+0.1	+0.2	36	46.1
Springfield[1,3]	Sangamon	560.0	+0.4	+0.8	+0.1	36	507.5
Taylorville	Christian	590.0	0.0	–0.1	+0.1	27	50.24
Vermilion[4]	Vermilion	581.7	–0.1	–0.2	–0.2	34	206.8

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 May 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 normal for April. Levels averaged 1.86 feet above normal and ranged from 2.14 feet below to 10.32 feet above normal levels (Table 6).

Comparison to March 2020. Shallow groundwater levels were below those of the previous month. Levels averaged 0.10 feet below and ranged from 3.58 feet below to 1.97 feet above March 2020 levels.

Comparison to April 2019. Shallow groundwater levels in April were above levels from one year ago. Levels averaged 0.46 feet above and ranged from 2.37 feet below to 4.68 feet above April 2019 levels.

Table 6. Month-End Shallow Groundwater Level Data Sites, April 2020

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)	Deviation from Previous month (feet)	Deviation from Previous year (feet)
Belleville	St Clair	15.00	0.61	1.12	1.23	1.17	0.36
Bondville	Champaign	21.00	N/A	N/A	N/A	N/A	N/A
Bondville (ICN)	Champaign	20.00	0.48	2.23	2.31	1.97	1.25
Boyleston	Wayne	23.00	N/A	N/A	N/A	N/A	N/A
Brownstown	Fayette	15.00	0.00	0.99	1.10	0.05	0.07
Carbondale	Jackson	26.00	3.99	–1.32	–1.26	–1.56	–1.46
Coffman	Pike	28.00	6.13	3.34	2.36	–0.72	4.68
Crystal Lake	McHenry	18.00	3.51	–0.02	0.44	0.09	–0.18
DeKalb	DeKalb	25.00	1.25	0.71	0.59	–0.39	0.88
Fairfield	Wayne	21.00	0.63	1.85	1.90	0.46	0.45
Fermi Lab	DuPage	15.00	1.32	2.90	3.28	1.11	0.37
Freeport	Stephenson	26.00	13.30	2.55	2.55	–2.66	1.02
Galena	JoDaviess	25.00	18.53	0.57	1.98	0.05	–1.46
Good Hope	McDonough	30.00	3.92	0.52	1.24	0.33	–0.52
Greenfield	Greene	21.00	4.58	3.78	2.83	–0.48	1.26
Janesville	Coles	11.00	3.39	0.56	1.03	0.75	1.35
Monmouth	Warren	27.00	9.51	–0.59	–0.39	–0.40	–0.60
Mt. Morris	Ogle	55.00	12.47	3.61	5.04	–3.58	N/A
Olney	Richland	19.00	0.18	1.59	1.64	0.64	0.43
Perry	Pike	20.00	0.92	3.09	3.00	0.16	1.17
Rend Lake	Jefferson	21.00	1.24	1.78	1.87	–0.21	0.66
SE College	Saline	11.00	4.14	–1.89	–1.81	–2.86	–2.37
Snicarte	Mason	42.00	38.96	–1.35	–2.14	–0.82	–0.12
Sparta	Randolph	27.00	1.77	1.7	2.73	1.13	N/A
Springfield	Sangamon	20.00	0.60	2.59	3.00	0.98	0.91
St. Charles	Kane	21.00	12.61	9.60	10.32	0.49	1.87
St. Peter	Fayette	15.00	1.51	0.11	0.57	0.25	N/A
SWS #2	St. Clair	80.00	10.24	0.91	2.83	1.50	N/A
			Averages	**1.57**	**1.86**	**–0.10**	**0.46**

Notes: N/A = Data not available.

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

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