Spring 2022 Review

of Weather Conditions Experienced In Central Indiana

Tied for 23rd Warmest on record at Indianapolis
54th Wettest on record at Indianapolis
Tied 32nd Least Snowiest on record at Indianapolis

Temperatures

MARCH 2022

March 2022 was quite mild, averaging 2 to 4 degrees above normal across central Indiana. This included anomalous warmth through both the first and third weeks that was partially offset by unseasonable chill, both briefly during the second week and amid several days of relative cold through the month's final week. Daily temperatures at Indianapolis averaged 10 or more degrees above normal **11** times - the **1st-2nd**, **5th-6th**, **15th-18th**, **21st**, **23rd**, **30th**; and averaged 10 or more degrees below normal on **6** other days: **11th-12th**, **26th-29th**. March 2022 continued the warm pattern also seen during March 2020 and March 2021; although this March was the coolest of these last three at Indianapolis, with March 2022's average temperature having the median value of the past 7 (2016-2022). Upper troughs were numerous over the western and west-central United States throughout March 2022, with downstream southwesterly flow often promoting mild conditions into Indiana; while less-frequent upper-level northwesterly flow supported cold spells.

March began with very mild readings on the **1st** and **2nd** as robust south-southwesterly breezes boosted afternoon highs into the 60s both days. The Shoals 8 S (Martin Co.) COOP weather station peaked at **70F** and **76F**, respectively. On the **2nd** Bloomington and Terre Haute hit 71F and 70F, respectively, the first 70F+ temperatures since early November 2021 at both sites; with several points south and west of these airports topping at 70F. Indianapolis recorded daily highs of 66F and 68F. The **2nd**'s impressive diurnal changes of +30 degrees were lead by Bloomington's 40-degree rise. After a couple seasonably cool days, strengthening winds from a deepening storm system passing to the northwest brought even more anomalous warmth on the **5th** and **6th**. Introduced by a widespread +33 to +39-degree rise on the **5th**, with the Tipton 5 SW (Tipton Co.) COOP station climbing +41 degrees, temperatures peaked in the 70s, as Shelbyville and Indianapolis-Eagle Creek both reached **78F**. Indianapolis' 77F maximum on the **5th** was a daily record, surpassing the 75F mark reached in both 1956 and 1983; this was only the tenth time in the 151-year record that the Indianapolis Area has reached 77F or higher prior

MARCH 2022 TEMPERATUES (Con't...)

to March 15th. The **6th**'s afternoon highs were then generally in the 60s to near 70F, with Shoals reporting **77F** while the Columbus COOP station (Bartholomew Co.) reached 75F.

On the **7th**, colder air entered the Mid-West, with a 1-day temperature change as great as -30 degrees at the West Lafayette 6 NW COOP station, as daily high temperatures trended from 66F to 36F. Seasonably cool conditions then prevailed through the **10th** amid modest Canadian high pressure. A 48-hour arctic blast then brought unseasonably cold weather from daytime on the **11th** through the morning of the **13th** which included the month's first hard freeze for many central and southern counties. On the **11th**, the Castleton 2 S COOP site (Marion Co.) noted a daytime maximum of only 30F. The morning of the **12th** was the coldest for most locations, as temperatures ranged from **6F** in Rockville (Parke Co.) to 19F at Shoals 8 S, with an 11F reading common across several sites north and west of Indianapolis, as well as the Washington 1 W (Daviess Co.) COOP site to the south. Almost all of central Indiana was held below freezing on the **12th** with afternoon highs as low as **21F** at Lafayette and 22F at the Frankfort Disposal COOP station (Clinton Co.); Indianapolis rebounded to 26F. The **13th**'s morning lows were a few degrees higher: the Spencer (Owen Co.) COOP site dropped to **12F** while 1st-order airports ranged from 15F at Indianapolis and Bloomington to 19F at Shelbyville.

The **13th** featured a quick transition back to typical early spring temperatures with several sites along the Wabash Valley, as well as Indianapolis, rebounding by +38 degrees into the low to mid 50s. Moderation then continued through above normal levels, with highs in the 60s common on both the **14th** and **15th**, before the warmth reached unseasonable levels on the **16th** and **17th** where afternoon maximums were commonly in the low 70s and mid 70s, respectively. Shelbyville hit 73F and 75F; while Indianapolis peaked at 72F and 74F. Highest readings on the **18th** also included **76F** at Shoals 8 S and 75F at several other COOP stations, including Perrysville 4 WNW (Vermillion Co.) and Vincennes 5 NE (Knox Co.). Sites with a late-day observation time recorded the highest 1-day minimum temperatures on the **18th**, with both Farmersburg TV-2 (Sullivan Co.) and Washington 1 W only dropping to 52F.

The **19th–20th** brought slightly above normal readings, where bright skies on the **20th** helped temperatures rise from the low/mid 30s into the 60s, with the greatest diurnal change of +37 degrees (from 32 to 69) reported at Shoals 8 S. Robust south-southwesterly winds then brought more above normal warmth on the **21st** and the following overnight: Washington 1 W topped out at **74F** while Indianapolis' high was 73F; then Muncie, Shelbyville and Indianapolis-Eagle Creek all had mild lows of 50F, while the North Vernon 2 ESE (Jennings Co.) COOP site only dropped to 54F. As of the **24th**, March was 5.8 degrees above normal at Indianapolis.

March's only extended cold period occurred late on the **25th** through the **29th** as an area of arctic high pressure, stretching from interior Canada to the Gulf of Mexico, slowly crossed the region. Widespread freezes occurred on the **26th**-**28th** (including hard freezes for all locations on both the **27th** and **28th**, before most places dropped to around 30F early on the **29th**). Minimum readings in the upper teens were common north and east of Indianapolis on the **28th**, with **13F** recorded at Rockville, 15F at the New Castle 3 SW COOP station (Henry Co.), and 18F at the Lafayette airport. Indianapolis' **27th**-**28th**'s lows of 24F and 22F made only the second

occurrence since 1997 of consecutive mornings below 25F this late in the season. High temperatures during this cold spell were generally in the upper 30s to mid 40s, with Carmel 3 E (Hamilton Co.)'s peak of **32F** on March **26th** the only reported freezing maximum.

On the **30th**, potent southerly winds ahead of a deepening storm system's cold front provided strong warm advection, with temperatures climbing into the mid- to upper 70s across the entire region by late day, with a lone report of **80F** at the Seymour 1 WSW (Jackson Co.) CCOOP station. The **30th'**s pronounced warming was seen across all counties, with diurnal changes of 30+ degrees common, and as great as +39 at Tipton 5 SW (from 40F to 79F). When considering the 2-day trend in readings, a +50 difference was observed at both Bloomington and Muncie from the morning of the **29th** through late day on the **30th**, with Muncie's change occurring in just over 30 hours. Many locations' highs were exactly one degree above the **5th'**s record warmth. Seasonable marks then followed the strong cold frontal passage early on the **31st**.

March 2022's above normal temperatures were in contrast to the slightly below normal readings recorded during February 2022, yet continued the trend from the very mild March 2021. At Indianapolis, March 2022's daily average temperatures were above normal on 18 days, below normal on 10 days, and at normal on 3 days. It was the 28th warmest March for the Indianapolis Area since weather records began in 1871, placing it in the 81st percentile.

APRIL 2022 TEMPERATURES

April 2022 was rather cool, with most locations averaging 1 to 2.5 degrees below normal across central Indiana. This included several ~3-day periods, about once every ~8 days, of very cool conditions amid an otherwise consistently chilly pattern, with the only unseasonable warmth confined to the month's last full weekend. Daily temperatures at Indianapolis averaged 10 or more degrees above normal only **2** times - the **23rd-24th**; and averaged 10 or more degrees below normal on **5** other days: **9th**, **17th-19th**, **26th**. April 2022 continued the near- to below-normal pattern also seen during April 2020 and April 2021. The upper-levels brought many passing waves amid an overall zonal flow, except for occasional broad, deep troughs that favored the north-central US; this pattern promoted considerably cloudy and cool weather, often among approaching warm frontal zones.

April began as a deep storm system departed into southeastern Canada, allowing cold Canadian high pressure to plunge into the Mid-West in its wake. Most locations recorded their lowest daily maximum on the **1st**¸ including 44F at both Indianapolis and Bloomington and 45F at Terre Haute, while only **38F** was reached at the Rockville (Parke Co.) and only 40F was managed at both the Kokomo 3 WSW (Howard Co.) and New Castle 3 SW (Henry Co.) COOP sites. The morning of the **2nd** was the month's coldest for most places, with a hard freeze common across the region, and readings as low as **23F** at the Davis Purdue AG Center near Farmland (Randolph Co.). The rest of the first week saw a slight moderation to near-normal levels.

On the **7th-9th**, a deep, broad stacked low slowly crossed the Great Lakes, bringing persistent light rainfall and a robust and chilly west-northwesterly flow. Highs ranged from the mid-40s to

APRIL 2022 TEMPERATURES (Con't...)

around 50F, with the **8th** only climbing to **42F** at Frankfort Disposal (Clinton Co.), and to 44F at Lafayette and places as far south as the Farmersburg TV-2 station (Sullivan Co.), while the **9th**'s max temps were as low as **42F** in Rockville, while 44F was observed at both Muncie and Castleton 2 S (Marion Co.). Daily low temperatures trended from near 40F to near 30F; the morning of the **10th** was the coldest - while Indianapolis dropped to 30F, Rockville's **25F** was the lowest observation, with a hard freeze scattered through the rest of the region, and as far south as the 27F at the Oolitic Purdue Experimental Farm (Lawrence Co.).

The month's greatest warming then followed during the **10th**'s daytime as a quickly-arriving upper ridge helped to boost temperatures into the 60s to around 70F: Terre Haute climbed from 28F to 69F (for a change of +41 degrees) in just over 10 hours, while the Shoals 8 S (Martin Co.) COOP station's increase from 30F to 71F was also (+41 degrees). Mild days followed on the **11th**-**13th** as afternoon highs reached the mid 60s to low 70s for most locations, the **12th** saw Bloomington peak at 73F, while it was 74F at the Seymour 1 WSW CCOOP station, and Shoals 8 S reached **78F**, and on the **13th**, Oolitic hit **77F**, while Indianapolis' max was 68F.

The most unseasonable cold of April 2022 occurred on the **17th**-**19th** as two areas of polar high pressure pushed across the Mid-West in quick succession, with the second ridge advancing as far as the southeastern US. Morning lows were in the upper 20s to mid-30s, while daytime highs only reached the 40s on the **18th**, with 50s common on the **17th** and **19th**. The **17th** and **18th** saw temperatures at or below freezing over the northern/eastern half of central Indiana, with the Davis Ag Center dropping to **26F** and **27F**, respectively, while Kokomo 3 WSW and Tipton 5 SW (Tipton Co.) were **27F** on both mornings. The morning of the **19th** brought a more widespread, yet milder freeze, as readings of 30F to 32F were common across the entire region, with **27F** in Rockville, and Indianapolis dropping to 31F for its only freeze of the week. Maximum temperatures on the **18th** were as low as **39F** at both Kokomo 3 WSW and New Castle 3 SW, while Lafayette and Muncie only topped out at 42F; meanwhile 51F was reached at both the Southwest Purdue AG Center north of Vincennes (Knox Co.) and Shakamak State Park (Sullivan Co.).

Very warm conditions graced central Indiana on the **23rd**-**24th** courtesy of robust south-southwesterly flow between the remnant surface high along the Atlantic coast and a late-winter storm system deepening over the northern Plains. Mid-80s were the rule on the **23rd**, with **86F** reported across all corners of the realm, at Shelbyville, Indianapolis - Eagle Creek, Shoals 8 S and Tipton 5 SW, with a few sites in Clinton and Tippecanoe Counties only reaching 79F. The **23rd** also had the mildest overnight of the month, as readings only dropped into the 60s, with the highest minimum observed at Shoals 8 S (**70F**), while Shelbyville and Muncie only dropped to 67F, and Indianapolis saw 63F. The **24th**'s max temps were slightly lower yet still well above normal, led by **84F** at several sites, including Shelbyville and Washington 1 W (Daviess Co.), with Indianapolis peaking at 81F. A cold frontal passage during the **24th** overnight started a quick transition to a couple more well below normal days.

Another polar mass of high pressure crossed the Great Lakes during the **26th**-**28th**, with central Indiana catching the milder, southern periphery of this chill. Morning lows on the **26th** and **27th**

dropped into the 30s, although sub-freezing temperatures were isolated; lowest readings being **29F** on April **27th** (at Farmland 5 NNW and Kokomo 3 WSW), and **30F** on the **28th** (at Tipton 5 SW and Crawfordsville 6 SE). The **26th** featured the coldest afternoon of the week, with readings ranging from **50F** at Farmland 5 NNW to 64F at Elnora.

April 2022's slightly below normal temperatures continued the trend since April 2020's slightly below normal and April 2021's near normal readings. Yet, April 2022 was in contrast to the noticeably mild March 2022. At Indianapolis, April 2022's daily average temperatures were above normal on 12 days and below normal on 18 days. It was the (tied) 55th coolest April for the Indianapolis Area since weather records began in 1871, placing it in the 36th percentile of all recorded Aprils.

MAY 2022 TEMPERATURES

May 2022 was quite warm, with most locations averaging 2.5 to 3.5 degrees above normal across central Indiana. Record heat within the **11th-15th** and additional brief unseasonable warmth during the **20th-21st** and **30th-31st** led this trend. 18 of the remaining 22 days were within 5 degrees of normal at Indianapolis; the month was devoid of any substantive polar air or prolonged chill. Daily temperatures at Indianapolis averaged 10 or more degrees above normal **7** times - the **10th-14th**, **20th**, and **31st**; with no days relatively colder than the **5th** or the **23rd** which were both 6 degrees below normal. May 2022 reversed the below-normal temperature pattern seen during May 2020 and May 2021. Upper level troughs were most frequent over western, and occasionally central portions of the continental US, which favored southerly to southwesterly flow into Indiana, as well as frequent opportunities for rain.

May's first eight days were generally cool, although few locations dropped below 40F. The **2nd**'s morning was the coldest of the month for most locations, especially central and southern counties. Several sites were as cold as **41F**, including the COOP stations at New Castle 3 SW (Henry Co.) and Perrysville 4WNW (Vermillion Co.), while 42F was observed as far south as North Vernon 2 ESE (Jennings Co.) and the Oolitic Purdue Farm (Lawrence Co.). The month's lowest daily maximum temperatures occurred on the **4th-6th**. The **5th** had the lowest highs for most locations, ranging from **55F** at Crawfordsville 6 SE (Montgomery Co.) to 62F at the Southwest Purdue AG Center, 5 NE of Vincennes (Knox Co.), while Indianapolis was 56F. Other monthly low maximums included 60F on the **4th** for a couple southern sites along I-65, and 54F on the **6th** at Kokomo 3 WSW (Howard Co.). The **8th** brought another chilly morning, with **39F** reported at the Davis Purdue AG Center, 5 NNW of Farmland (Randolph Co.) and 42F as far south as Jamestown 2 E, while Indianapolis dropped to 47F.

Anomalous warmth then followed around May's second week. The **9th** was a transitional day amid low humidity, with temperatures rising from 49F to 81F (for a change of +32 degrees) at Rockville (Parke Co.). The **10th** then saw unseasonably high humidity (see Miscellaneous section below for details), with highs in the mid to upper 80s common across central Indiana, and the region's first **90F** reported at the Shoals 8 S (Martin Co.) COOP Station. The **11th** was the hottest day of the month for most locations, with widespread upper 80s and ~30% of the region peaking in the low 90s: **93F** was reached at Perrysville 4 WNW and Vincennes 5 NE, while 92F

MAY 2022 TEMPERATURES (Con't...)

was observed at Shoals 8 S and Washington 1 W (Daviess Co.), with low 90s common across southwestern zones and 91F recorded as far north as the Beck Agricultural Center, 6 NW of West Lafayette (Tippecanoe Co.) and Tipton 5 SW (Tipton Co.). While only hitting 89F, Indianapolis tied the Area's daily **record high** from 1896. The **11th**'s morning lows were also unprecedented: Indianapolis' **72F** was a new record (surpassing 69F on this data in 1881) and marking only the fourth time in the 152-year record that it failed to drop below 70F so early in the year; Farmersburg TV-2 (Sullivan Co.) also observed **72F**. The **12th**-**15th** then saw four more very warm days, generally in the mid- to upper-80s, with morning lows in the mid-50s to low-60s. Low 90s continued through the **13th** at both Perrysville 4 WNW and Washington 1 W.

A transition back to seasonably mild conditions occurred late on the **15th** as a cold front crossed Indiana, dropping readings by as much as 88F to 52F (for a change of -32 degrees) at Vincennes 5 NE. Near normal temperatures followed through the **18th**. Albeit brief, another warm spell graced the region within the **19th**-**21st**. The **19th** trended warmer, with Shelbyville Municipal Airport peaking **85F**, while Farmersburg TV-2 reached 84F. The **20th** was the warmest day of the third week, as south-southwest flow brought moderate humidity and temperatures as high as **91F** at Shoals 8 S and 90F at Shelbyville, while Indianapolis reached 87F; the Rushville COOP station (Rush Co.) recorded its highest daily low of the month, 72F. The **21st**'s morning lows were again mild – in the mid to upper 60s ahead of an approaching cold front; while daytime highs reached the upper 80s for the areas that avoided thunderstorms through midday – with **87F** recorded at both Shakamak State Park (Sullivan Co.) and the Columbus COOP station.

Rather cool conditions followed on the **22nd**-**24th**. High temperatures were lowest on the **22nd**, with a few locations only reaching 63F, including Jamestown 2 E. The **23rd** saw the coldest morning, with **46F** at three of the region's traditional cool spots: Crawfordsville 6 SE, New Castle 3 SW, and Rockville...as well as Lafayette 8 S (Tippecanoe Co.). Upper 40s were observed at several locations again on the **24th**, Indianapolis observed 50F and 51F over the two mornings. The **25th**-**28th** were on the whole seasonable, while trending from rather warm to slightly below normal: the **25th** was as warm as **86F** at Shoals 8 S, Tipton 5 SW, and the Shelbyville Airport; while the **28th** was as cold as **46F** at Lafayette.

May ended on a warm note, with diurnal spreads commonly ranging from the 60s to the 80s during the **29th**-**31st**. The **31st**'s morning low was the month's highest at Muncie (71F) and Farmland 5 NNW (72F), while afternoon highs ranged from 86F to **93F** at the Shelbyville Airport, with Indianapolis reaching 88F. Most of the region did not record their first-90F by month's end, yet a few sites had hit 90F on several occasions – on 4 days each at Shoals 8 S, Vincennes 5 NE, and Washington 1 W, while the Shelbyville Municipal Airport reached 90F+ on 7 days.

May 2022's above normal temperatures were in contrast to both the below normal readings in May 2020 and May 2021, as well as the rather cool April 2022. At Indianapolis, May 2022's daily average temperatures were above normal on 17 days, below normal on 12 days, and at normal twice. It was the (tied) 27th warmest May for the Indianapolis Area since weather records began in 1871, placing it in the 82nd percentile of all recorded Mays.

Spring 2022 Temperature Data for Central Indiana Sites

Site	**Spring 2022 Av Temperature**	Spring Season Normal Temp	**Difference From Normal**
Indianapolis Int'l Airport	**54.4**	53.2	**+1.2**
Lafayette	**52.4**	50.9	**+1.5**
Muncie	**54.6**	53.2	**+1.4**
Terre Haute	**55.0**	53.6	**+1.4**
Bloomington	**55.1**	53.8	**+1.3**
Shelbyville	**56.5**	54.3	**+2.2**
Indianapolis Eagle Creek	**55.0**	53.3	**+1.7**

Spring 2022 Temperature Extremes Across Central Indiana

Site	**Highest Temperature**	**Lowest Temperature**
Indianapolis Int'l Airport	89 on 5/11	13 on 3/12
Lafayette	89 on 5/11	**12** on 3/12
Muncie	91 on 5/31	16 on 3/12
Terre Haute	90 on 5/11, 5/31	14 on 3/12
Bloomington	90 on 5/11	14 on 3/12
Shelbyville	**93** on 5/11, 5/31	17 on 3/12
Indianapolis Eagle Creek	90 on 5/11	14 on 3/12

Precipitation

MARCH 2022

Following the release of the new 30-year climatological normals (1991-2020), March is now typically the fifth-wettest month across most of central Indiana, and serves as a rough mean of monthly precipitation – between the four distinctively wetter months (April-July which normally total 4.33"+ at Indianapolis) and the seven drier months (August-February, which all normally record less than 3.50" at Indianapolis). March is typically not as relatively wet across northern portions of the region, where Lafayette and Muncie's autumn months generally receive slightly more precipitation. Normally around 2.75-3.75" of precipitation falls across central Indiana in

MARCH 2022 PRECIPITATION (Con't...)

March, which includes the usual north (drier) to south (wetter) gradient. However, March 2022's totals were above these normals, with **4.67"** falling at Indianapolis International Airport, **127% of normal**. This was actually only the fourth wettest March of the last six years at Indianapolis; elsewhere Indianapolis–Eagle Creek totaled the most March precipitation since 2008, Terre Haute the most since 2018, with other sites wetter in March 2020.

No organized precipitation fell in central Indiana until late on March **5th**, which aided the recession of main stem **river flooding** that had continued since mid/late February. On the Wabash River, minor flooding ended on the **1st** at Covington, on the **4th** at Terre Haute and the **5th** at Montezuma, the latter ending 16 days in flood; meanwhile flooding continued at all points further downstream, where the crest passed on the **2nd**; 6 days of **moderate flooding** ended at Mount Carmel on the **3rd**. Most White River points had fallen below flood before March began, with flooding ending at Edwardsport on the **1st**; Petersburg and Hazleton then fell out of flood by the **7th**, concluding ~16 days in flood at both sites. Flooding also ended on the East Fork of The White River's segment from Rivervale to Shoals during the **1st-3rd**.

March 2022's first weekend then featured two nights with rain and embedded thunderstorms. First, on the late evening of the **5th** to early morning on the **6th**, brief heavy rains fell mainly along and north of I-70; then from the evening of the **6th** through the morning of the **7th**, widespread, long-duration moderate to heavy rains impacted nearly all of the region. The greatest 1-day totals were recorded through dawn on the **7th**, with many locations along and south of I-70 observing **2.00-2.75"**, including **2.80"** near Unionville (Monroe Co.) and **2.33"** reported in Plainfield (Hendricks Co.); while Tipton 5 SW reported **1.82"** with road flooding. Following additional, lighter scattered rains during daytime of the **7th**, overall 2- to 3-day totals ranged from **1.25"** near Lafayette to **1.75-3.00"** across most of the region, including **2.95"** in Flat Rock (Bartholomew Co.) and **2.94"** in Augusta (Marion Co.) Flooding of low-lying areas was common from the morning of the **7th** through the **8th**, especially in and near the Indianapolis metro area.

River flooding also resumed on the **7th-8th** at several sites along the three main stem rivers: essentially all of the Wabash re-entered flood, while the White flooded at Muncie and below, and the East Fork of the White at Shelbyville to Williams. Over a dozen site specific points on other rivers also flooded for a day or so, generally through the **8th**. Most crests occurred on the **8th-10th** with several locations entering a moderate flood stage: the East Fork at Seymour for 17 hours through the **8th** daytime and evening; Young's Creek at Amity for 13 hours on the **8th**, and the Mississinewa River at Ridgeville for just over a day through dawn on the **8th**. Thereafter, lack of any substantial rain through the morning of the **18th** promoted receding waters. The East Fork of the White sites above Seymour only flooded for 1-3 days, while Seymour and Rivervale saw another 4 days in flood, with Rivervale's later period ending on the **14th**. The White's flood had a similar pattern, with most segments above Elliston flooding 3 days or less, while downstream points stayed in minor flood for roughly a week, with 10 days of flooding ending at Petersburg on the **17th**. The Wabash was the slowest to recede, with this additional week or so of minor flooding from Covington to Terre Haute ending around the **14th**; as flooding uninterrupted since February finally ended downriver, from the **16th** at Vincennes to

MARCH 2022 PRECIPITATION (Con't...)

the **18th** at Mount Carmel. This concluded 27 days in flood at Mount Carmel, and just over 28 days at Riverton.

Rain returned to the area on the **18th**, with mainly afternoon showers quickly leading to evening thunderstorms, which lingered into early on the **19th** across northern counties. 1-day rainfall totals through dawn on the **19th** were generally 0.50-**1.00** inches, with greatest reports including **1.48"** north of Anderson (Madison Co.) and **1.30"** south of Noblesville (Hamilton Co.). Additional light to moderate rain showers then fell near and north of I-70, mainly on the morning of the **19th**. 2-day rainfall totals were as high as **1.67"** north of Spencer (Owen Co.).

A broad, deep upper trough brought generally damp and unsettled weather across the region from pre-dawn on the **22nd** through the **25th**. Widespread soaking rains started this period, with 0.50-0.75" across most southern counties by dawn on the **22nd**; followed by impressive 1-day totals of mainly 0.75-**1.75"** through dawn on the **23rd**, with local maximums along the I-69 corridor including **2.12"** in Clermont (Marion Co.) and **2.11"** southeast of Bloomfield (Greene Co.). This brought storm totals of **1.50-2.50"** over a broad area across central parts of the region, with several reports of **2.50-2.85"** along and immediately west of I-69 over Greene County and southwestern Morgan County…while more modest storm totals near 1.00" were found along eastern and northwestern zones. The daytime of the **23rd** then found scattered strong afternoon storms across eastern counties as the system's cold front crossed the region, bringing additional rains up to 0.58" in Randolph County. Further rainfall on the **24th**-**25th** was light, yet 4-day final storm totals included a **2.00**-**3.00"** SSW-NNE maximum swath from Daviess County to Tipton County, with **3.37"** at Ellettsville (Monroe Co.), **2.46"** in Avon (Hendricks Co.), and **2.25"** near Washington; most locations outside this band totaled **1.20**-**2.00"**.

Following the rains of the **18th**-**22nd**, the seesaw of **river flooding** quickly resumed on mainly the **23rd**, with stages quickly rising into minor flood along all of the Wabash from Lafayette down to Riverton, the White from near Centerton (Morgan Co.) through all downriver points, and on the East Fork of the White at Seymour. This minor flooding crested on the White River from the **23rd** along Morgan and Owen Counties, to the **27th** at Edwardsport and the **29th** at Hazleton; on the East Fork at Seymour on the **24th**; and along the Wabash from Lafayette on the **23rd** to Riverton and points downriver on the **29th**. Minor flooding then ended on the East Fork at Seymour on the **25th**; the White River from Centerton on the **24th**, to Elliston on the **28th**, to Knox County sites on the **29th**-**31st**; and on the Wabash from Lafayette on the **28th** to Terre Haute on the **30th**, while flooding continued into April at Riverton and Mount Carmel.

The **30th** saw light morning showers lead to stronger afternoon/evening rains over western counties as a strong cold front approached Indiana. While the system's rain underperformed due to a very dry lower atmosphere, significant totals were nonetheless reported along most of the Wabash Valley. The Pence 1 SW (Warren Co.) COOP site reported **1.66"** while the Perrysville 4 WNW (Vermillion Co.) station measured **1.25"**.

The minor flooding back-and-forth cycle switched on yet again along the middle Wabash, with both Montezuma and Terre Haute, after a 1-day lull, re-entering flood on the **31st**. Flooding continued for these points as the month ended.

Limited **winter weather** was led by scattered light accumulating snowfall on both March **11th** and **26th**. The **11th**'s weak, two-part system brought many reports near 1.0" across northwestern and north-central counties, with this AM-hours portion totaling **1.6"** on the northeast side of Lafayette and **1.1"** at the Kokomo 3 WSW COOP site (Howard Co.); before afternoon and evening snow dropped up to ~0.5" on several south-central counties. This second portion also contained a narrow band of heavier snow from Daviess County to Bartholomew County: while the Elnora (Daviess Co.) COOP station noted "snow not sticking", **1.8"** was reported east of Shoals. Two weeks later, the **26th**'s frozen precipitation started in the early morning as graupel/snow pellets across northern counties as colder air began to infiltrate the region; before pre-dawn snow squalls trained over a line from West Lafayette to south of New Castle (Henry Co.), which led to localized totals of **2.0-2.5"** on grassy surfaces in Lafayette, Frankfort (Clinton Co.), and Carmel. Daytime lake-enhanced snow showers then followed on the **26th** along and north of I-74, dropping an additional coating over a few northeast counties.

The month's only other winter weather was confined to isolated to scattered snow flurries on the **3rd** and **7th**-**9th**. Indianapolis only officially recorded a trace of frozen precipitation for the month, although 1-3" totals were common as close as the metro area's north side; for March, historically, Indianapolis records no measureable snowfall about once every 8 years.

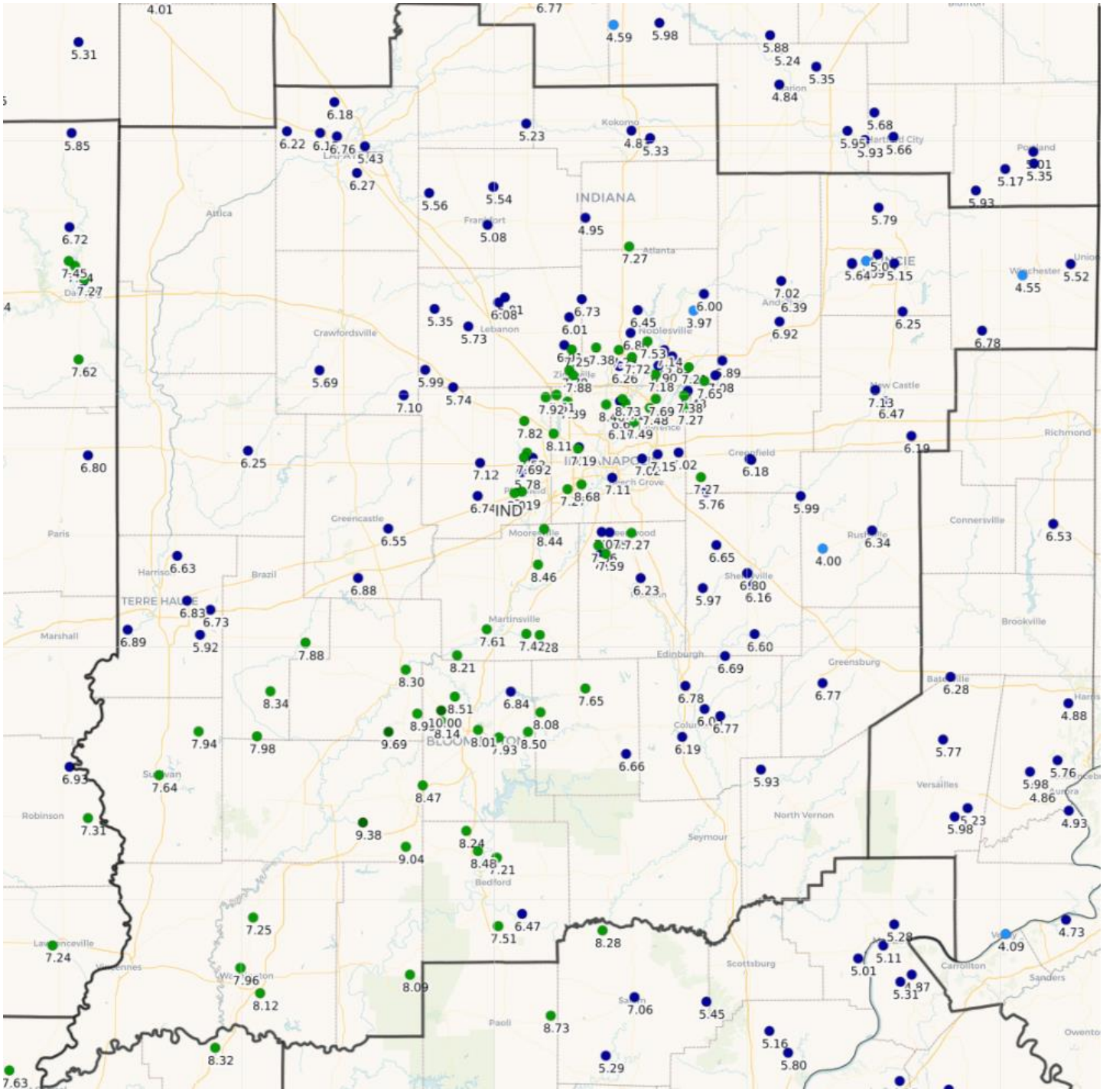
In summary, precipitation was most anomalous at Indianapolis-Eagle Creek, which recorded over **1.00"** on 3 days, with two 2-day totals both approaching **2.50"**: the **6th**-**7th**'s **2.38"** and the **22nd**-**23rd**'s **2.41"**. While not their daily maximums for the month, the **22nd** dropped **1.51"** on Bloomington, and **1.35"** at Terre Haute. Also noteworthy were Bloomington's 5 days of 0.50"+ and Terre Haute's 12 days with measureable precipitation. March 2022's above normal precipitation continued the pattern from February 2022's wet conditions, while furthering the trend from March 2021's near to above normal totals. March 2022 was the sixth of the last seven Marches (2016-2022) with a sum of 4.07" or more precipitation at Indianapolis. The year-to-date total at Indianapolis rose to **10.38"**, a surplus of **1.13"** above normal. March 2022 was the **40th wettest** for the Indianapolis Area since weather records began in 1871, placing it in the 74th percentile.

APRIL 2022 PRECIPITATION

Following the release of the new 30-year climatological normals (1991-2020), April is now typically the fourth-wettest month across most of central Indiana, normally totaling significantly more precipitation than March, yet less than May, June and July. Exceptions to this pattern are now found across the region's southern counties where April ties May as the year's climatologically rainiest month at Terre Haute, while at Bloomington April falls in second behind June, and at Shelbyville it is normally the third-rainiest month behind May and June. The previous 30-yr normals (1981-2010) placed April as only the 4th-wettest at all seven 1st-order sites.

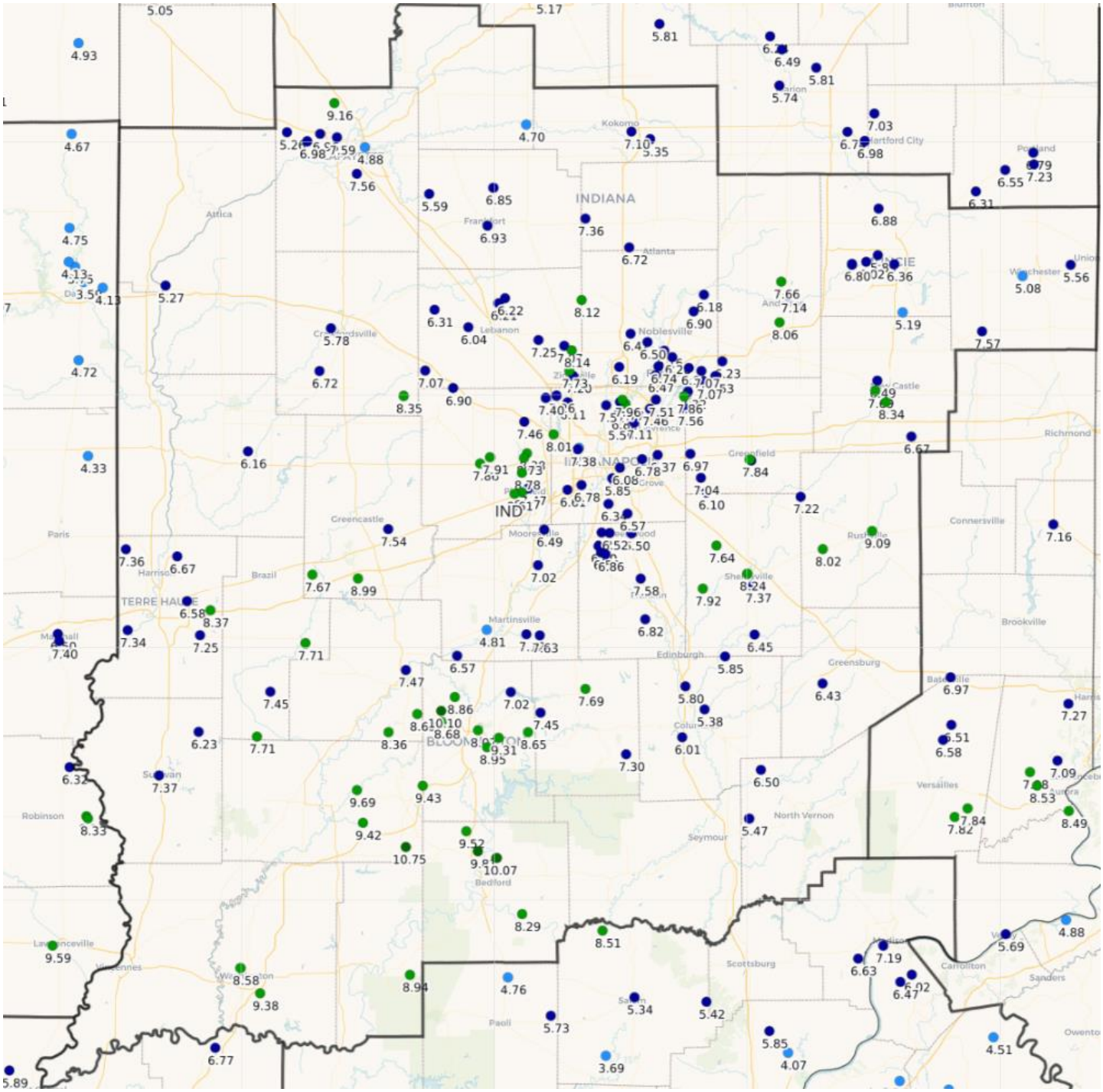
The region's typical north-south precipitation gradient is normally present in April, ranging from just under 4" across the far northern counties to just over 5" along far southern zones. Although this difference is proportionally less than that normally found in the January-March

March - Mid April 2022 Total Precipitation, Through the Morning of 4/16
As Reported By Central Indiana CoCoRaHS Observers



For the period 700 AM EDT 3/1/2022 -to- 700 AM EDT 4/16/2022. Data is unofficial.

Mid April - May 2022 Total Precipitation, Starting the Morning of 4/16
As Reported By Central Indiana CoCoRaHS Observers



For the period 700 AM EDT 4/16/2022 -to- 700 AM EDT 6/1/2022. Data is unofficial.

APRIL 2022 PRECIPITATION (Con't...)

period, which follows the trend to more uniform precipitation across central Indiana through May-August. Despite measurable rain falling on 17-19 days, April 2022's totals were generally about an inch below these normals; although locations through several central counties finished the month with near to slightly above normal precipitation totals. **4.42"** fell at Indianapolis International Airport, which was essentially at normal. Despite generally modest totals relative to normal, April 2022 was the wettest April of the last three years.

Minor **river flooding** carried over from March 2022 on the Wabash River from Montezuma down to Riverton. Flooding ended on the night of the **4th** at Montezuma and Terre Haute; and despite light rains finally ended at Riverton early on the **6th**, after over two weeks of flooding at this site. After several days near bankfull conditions, Vincennes' river stage teetered at or just into minor flood from pre-dawn on the **3rd** to the morning of the **5th**.

Daily widespread light rains fell over central Indiana from the **5th** through early on the **9th**. 1-day totals were as high as 0.65" through dawn on the **6th** at Clay City (Clay Co.), and 0.59" through dawn on the **7th** at Hymera (Sullivan Co.); although reported 4-day totals were no greater than the isolated 0.90-0.98" reported across Sullivan, Owen, and Tippecanoe Counties. The **11th** found more widespread light to moderate rainfall, around a lone heavier observation of **1.06"** at the Bowling Green 1 W COOP site. The generally damp mid-month pattern finally produced more appreciable rains on the **13th**, with 0.50-**1.70"** common across the region, an **1.90"** observation near Mooresville (Morgan Co.), and reports near/above **1.50"** common across Lawrence, Martin and Monroe Counties.

Following this more impressive rainfall, a few site specific **river sites flooded** on the **14th** from pre-dawn to afternoon hours, namely, the Mississinewa River at Ridgeville, Flatrock River at Raleigh, and Beaver Creek at Shoals. Main stem river flooding soon followed on most of the lower White River: Elliston, Edwardsport, and Petersburg entered flood stage on the **14th**, with Hazleton following on the **15th**. The associated crest flowed from Elliston at dawn on the **15th** down to Hazleton by pre-dawn on the **18th**. Minor flooding ended at Elliston on the morning of the **16th**¸ and at Edwardsport on the **18th**, with points along southern Knox County ending ~6 days in flood on the **20th**-**21st**. Isolated flooding was also observed along other main stem rivers: the East Fork of the White at Seymour flooded from the **14th**-**16th**, while the Wabash at Montezuma flirted at the minor flood threshold for ~6 hours early on the **16th**.

Several more days of widespread light rainfall occurred within the **17th**-**20th**, with no 1-day readings exceeding ~0.50"; the greatest 4-day totals of 0.60-0.90" were over south-central zones, especially Monroe and Lawrence Counties. April's last week then started with a broad swath of moderate to heavy rainfall on the **24th** over all but southeastern counties; including greatest observations along a narrow axis from **2.93"** at the Southwest Purdue AG Center near Vincennes (Knox Co.), through **1.93"** just south of Ellettsville (Monroe Co.), to **1.43"** in Greenwood (Johnson Co.). Following additional light to moderate rain on the **25th**, numerous 2-day totals of 0.80-**2.00"** were seen near and between the I-70 and I-69 corridors, with **3.11"** at the Southwest Purdue AG Center, as well as **2.21"** northeast of Bloomfield (Greene Co.). **Isolated flooding** followed, with Youngs Creek at Amity reaching minor flood from the afternoon of April

25th to dawn on the **26th**¸ while the White River at Edwardsport spent 2.5 days in flood from pre-dawn on the **26th** through the afternoon of the **28th**.

The month closed with one final rainy day on the **30th** as scattered afternoon showers led to several rounds of evening thunderstorms, which made for the month's greatest 24-hr totals over northern portions of the Indianapolis metro and points northeastward: **2.16"** near Sheridan (Hamilton Co.), **2.14"** in Williams Creek (Marion Co.), and **2.05"** just north of Anthony (Delaware Co.).

Late winter **light snows** and/or mixed precipitation occurred on several days, when promoted by nocturnal timing, and with organized accumulating snowfall generally confined to the Interstate 74 corridor and north. Rain had just changed to snow as the month began early on the **1st**. As noted by Bob McLain in Castleton (Marion Co.), "snow melted as it landed", with only a very thin coating reported across many northern and central counties, and isolated ~½" amounts in the Lafayette and Carmel areas. Very early on the **9th**, rain mixed with or changed to various frozen precipitation types, including sleet, graupel, and eventually snow, dropping a dusting from Lafayette to Muncie, with as much as **0.6"** near Kokomo (Howard Co.), before tapering off during the morning. The month's greatest snowfall came on the **18th** from briefly-potent early morning snow showers, which brought a broad patch of 1-2" from the Lafayette area to northeast counties, while embedded narrow, heavier bands lead to reports of **2.9"** near New Ross (Boone Co.) and 2.7" at the New Castle 3 SW COOP site (Henry Co.). A mixture of rain at the onset limited snowfall south of Interstate 70 to generally a light coating; amid this north-south gradient, Indianapolis officially measured 1.0" (which was also the month's total).

In summary, precipitation was frequent, but nevertheless for most locations sub-normal, with these generally slight deficiencies due to lack of stronger thunderstorms. While April normally sees 11-13 days with measurable rain, this was surpassed by 8 days at Terre Haute and 5-6 days elsewhere. However, there are normally ~8 days with 0.10"+ of rain -- Terre Haute and Bloomington both totaled 11, while the five other 1st-order sites were overall near-normal; thus the above normal rain frequency was lead by very light rainfalls. April 2022's generally slightly below normal precipitation continued the pattern from April 2021's rather dry conditions, while countering the trend from March 2021's plentiful totals. The year-to-date total at Indianapolis rose to **14.80"**, a surplus of **1.22"** above normal. April 2022 (tied) for the **43rd wettest** in the Indianapolis Area since weather records began in 1871, placing it in the 72nd percentile of all recorded Aprils.

MAY 2022 PRECIPITATION

Following the release of the new 30-year climatological normals (1991-2020), May is now the second-wettest month for four of central Indiana's seven 1st-order airports - those in the Indianapolis Metro and points east. At Terre Haute, May ties April for wettest month of the year; Lafayette is normally wetter in both June and July; and Bloomington is normally wetter in April, June and July. May has trended noticeably drier since the previous 30-yr normals (1981-2010), with normal monthly precipitation down about 0.50" at most sites, while normal precipitation has trended up at all 1st-order sites in April and especially June. The region's

MAY 2022 PRECIPITATION (Con't...)

typical north-south precipitation gradient is usually much less prominent in May, with this trend continuing into early summer. Normal values range from 4.04" in Lafayette to 4.75" at Indianapolis, with the three southern airports normally totaling 4.47-4.71".

Following **April 30th**'s rain, **minor flooding** occurred for 5 to 12 hours on the **1st** on several smaller rivers and creeks across northeastern counties, including Cicero Creek at Tipton (Tipton Co.) and Pipe Creek at Frankton (Madison Co.). Showers and a few thunderstorms occurred across the region from late evening of the **2nd** through late morning of the **3rd**. Rainfall totals through dawn on the **3rd** included scattered patches of 0.25-0.90" along and south of Interstate 70, with **1.13"** near Seelyville (Vigo Co.) and **1.12"** south of Harrodsburg (Lawrence Co.). The **3rd**'s afternoon and early evening hours saw a few lines of isolated thunderstorms, with additional 1-day totals, through dawn on the **4th**, greatest over central and northern counties, with as much as **1.42"** in Kempton (Tipton Co.). 2-day precipitation ranged from ~0.25" in far southeastern zones to around **1.00"** for north-central counties and several areas near I-70; greatest reports were **1.56"** in Riley (Vigo Co.), **1.51"** at Kempton, and **1.30"** southwest of New Castle.

The **5th**'s mainly midday to afternoon showers led to generally moderate rainfall totals, as great as 0.84" near Montmorenci (Tippecanoe Co.). The **6th** saw scattered midday to evening showers and thunderstorms, with **1.21"** near McCordsville (Marion Co.) being the greatest report. Observations totaled 0.40-**1.20"** for most locations over the two days, with **1.54"** in Muncie, several reports around **1.50"** in far northeastern Marion County, and **1.41"** in Bloomington. **River flooding** occurred on the Wabash River from Lafayette (where it started late on the **4th**) down to Riverton (the last site to fall out of flood, early on the **14th**). Flooding lasted for about 6 to 7 days at each site, with the crest passing Lafayette late evening of the **7th** and at Riverton pre-dawn on the **12th**. Wildcat Creek at Lafayette reached bankfull on the morning of the **7th** yet never flooded. Flooding was isolated in other basins, occurring on the White River at Edwardsport over the **4th**-**7th**; on the Mississinewa River at Ridgeville for 11 hours on the night of the **6th**; and briefly on Cicero Creek in Tipton on the evening of the **6th**.

May's second week was mainly dry, with most locations observing no rain on the **8th** through the **13th**; a rather active second half of the month then followed. The **14th**'s afternoon thunderstorms dropped heavy rains as the cells slowly tracked southward, finally ending during the evening; a wide variance in rainfall reports had greatest totals across north-central and southwestern counties, including **3.12"** near Battle Ground (Tippecanoe Co.), **2.53"** near Plainville (Daviess Co.), and **2.15"** in Kokomo. The **15th** then saw late afternoon storms over northwestern zones transition into a widespread light to moderate rain, before tapering off after midnight on the **16th**. Additional 1-day totals were highest in Covington (Fountain Co.) and near Seelyville (Vigo Co.), with both reporting **1.45"**. 2-day totals ranged from 0.10-0.50" in and east of Indianapolis, to mainly **1.00-3.00"** over western zones, with **3.97"** near Battle Ground and **3.10"** near Plainville.

The **18th**'s widespread light to moderate rain fell from early morning through late day; generally 0.25-0.75" totals were recorded, with greatest reports found west to east across the Indianapolis Metro. Two rounds of late-day to early-evening storms on the **19th** dropped locally very heavy rains along and south of the I-70 corridor, before another complex of cells crossed the same

MAY 2022 PRECIPITATION (Con't...)

counties from late evening through dawn on the **20th**. Just after midnight, Eagle Creek Airpark collected 0.49" in just 8 minutes; totals ranged from near-zero across the region's northwest to a broad swath of **1.00-3.00"** along and near the US-50 corridor, including **3.40"** near Mitchell (Lawrence Co.) and **3.18"** at the Elliston-Bloomfield COOP site (Greene Co.); less-torrential heavy rainfall measurements farther north included **2.21"** in Plainfield (Hendricks Co.) and **2.01"** in Rushville. 2-day totals for the **18th-early 20th** included **3.80"** near Mitchell and **3.75"** in Brownstown (Jackson Co.).

The **21st**'s strong to severe, yet fast-moving thunderstorms dropped a quick 0.50-**1.00"** for several counties along a broad swath just south of I-70, with greatest observations from 0.97" in Howesville (Clay Co.) to **1.44"** at the Shelbyville Sewage COOP station. 8-day precipitation totals from dawn on the **14th** through dawn on the **22nd** ranged from around **1.00"** across many far northern counties to several **4.00-6.00"** sums over mainly southern zones, with **6.22"** north of Mitchell and **4.87"** in far north-central Tippecanoe County. **River flooding** then followed over southwestern portions of the region. The lower White River entered minor flood at Edwardsport on the afternoon of the **20th**, and at Petersburg and Hazleton on the **21st**; flooding ended after ~1.5 days at Edwardsport while the downriver points both remained in minor flood for about 3 days. More noteworthy was Beaver Creek at Shoals, which despite only flooding for 23 hours, did reach the threshold for **moderate flood** on the early afternoon of the **20th**; Salt Creek near Harrodsburg (Monroe Co.) also flooded for most of the **20th**.

Several more days of showers and thunderstorms occurred on the **24th** through **27th** as an approaching closed upper low focused Gulf moisture into the region, with daily rainfall amounts increasing up to the widespread storms on the **26th**. The **24th** saw a few areas report 0.25-0.40" south of I-70. The **25th**'s general 0.25-0.75" reports surrounded several isolated **1.00"+** observations, including up to **1.09"** near Anderson (Madison Co.) and **1.40"** near Scipio (Jennings Co.). The **26th** then had numerous 1-day totals of **1.00-1.75"**, with greatest reports ranging from **2.61"** west of Goshen (Vigo Co.), to **2.47"** east of Shoals, and **2.25"** near Oolitic. 3-day sums were in the **1.00-2.00"** range for the vast majority of central Indiana, with combined reports as great as **3.46"** near Williams (Martin Co.) and **3.42"** at Shoals 8 S, and also as far north as the **2.26"** near New Castle and **2.09"** west of New Market (Montgomery Co.). The **27th** was the final day of (lighter) rain showers, although isolated heavier rainfall occurred over northeastern portions of the Indianapolis Metro – from 0.75" in Williams Creek (Marion Co.) to **1.07"** near Fortville (Hamilton Co.).

Isolated **river flooding** occurred once more, led by the lower White River: Petersburg entered minor flood on the morning of the **27th**, and Hazleton following that night, with minor flooding continuing for about 3 days at both sites. The East Fork of the White River flooded at Seymour from late day on the **28th** through late evening on the **29th**. The Flatrock River near Raleigh (Rush Co.) also flooded for ~9 hours during the **27th**.

In summary, outside of a dry second week, May 2022's precipitation was frequent; and despite a high variance due to numerous thunderstorms, totals were mainly near to well above normal. May 2022 continued April 2022's pattern of above normal rainfall frequency led by light rains.

MAY 2022 PRECIPITATION (Con't...)

However, unlike April, most airports observed above normal precipitation. **3.77"** fell at Indianapolis International Airport, which was below normal. Three of the last six Mays at Indianapolis saw either anomalously high (2017, 2020) or unseasonably low (2018) rainfall, although 2022 continued the slightly below normal pattern from both May 2019 and May 2021. The year-to-date total at Indianapolis rose to **18.57"**, which decreased the surplus to **0.69"** above normal.

Spring 2022 Precipitation Data for Central Indiana Sites

Site	**Spring 21-22 Precipitation**	Spring Season Normal Precip	**Diff. From Normal**	**Greatest Daily Precipitation**
Indianapolis Int'l Airport	12.86	12.78	+0.08	1.77 on 3/7
Lafayette (*)	8.22INC	10.61	M	M
Muncie	10.56	11.33	−0.77	1.14 on 3/7
Terre Haute	13.44	12.34	+1.10	1.44 on 3/7
Bloomington	16.27	13.23	+3.04	1.63 on 3/7
Shelbyville	13.15	12.61	+0.54	1.75 on 3/7
Indianapolis Eagle Creek	15.79	11.68	+4.11	**1.90** on 3/7

(*) **Lafayette**'s observed precipitation was incomplete 3/18 – 5/25

Severe Weather

MARCH 2022 saw the severe season get off to an active start early in the month with nocturnal thunderstorms on consecutive nights. Early on the **6th**, moist conditions beneath a southwesterly low-level jet stream produced two lines of thunderstorms over the region, with the second line containing damaging winds that impacted 11 northern counties, including siding ripped from houses in Hamilton County while porch pillars were blown off a house in Madison County. Early on the **7th**, more storms brought several brief local gusts to hurricane strength winds: a brief downburst in Merom (Sullivan Co.) estimated at 100 mph, blew over a recreational vehicle; a possible microburst in Trafalgar (Johnson Co.) estimated at ~80 mph, rolled an empty trailer

several hundred yards; near Geneva (Shelby Co.) winds estimated at 95 mph snapped several telephone poles at ground level; and on the west side of Seymour (Jackson Co.) winds estimated at ~85 mph caused extensive damage. Less-intense winds led to reports of damage at both the Franklin WWTP (Johnson Co.) and Vincennes 5 NE COOP stations.

On the **23rd**, an approaching cold front set off a line of strong storms over eastern counties, with one cell reportedly dropping **1.25"** hail southwest of Greensburg (Decatur Co.).

Then on the evening of the **25th**, a passing strong cold front produced several strong storms, whose downdrafts brought a few marginally severe winds gusts as measured at both Indianapolis 1st-order airports as well as **59 mph** at the Kokomo Municipal Airport (Howard Co.).

Finally, on the overnight of the **30th-31st**, a deepening storm system passing to the northwest of the region produced marginally severe gradient winds, both before and after the associated cold frontal passage. A metal mobile porch awning near Mooreland (Henry Co.) was blown 100 yards, while several reports of downed trees and/or poles/lines were received from south of Interstate 70, namely within Jackson, Knox, Owen, Sullivan and Vigo Counties; severe gusts of **58-60 mph** were reported at Muncie, Terre Haute, and the Indianapolis Metro Airport in Fishers (Hamilton Co.). In addition to these gradient winds, during the evening of the **30th**, a cell in far southwestern Knox County exhibited rotation, although no severe weather was reported. No lightning was observed throughout this event.

APRIL 2022's several days of severe reports included damaging winds impacting several counties on April **13th**, as well as isolated events on the **12th**, **15th**, **23rd**.

On the **13th**, moist lower levels combined with a deep trough over the Mid-West to promote a line of strong storms over southern central Indiana by the early evening. These cells further organized into a squall line whose bowing segments lead to damaging straight line winds, including significant damage to boat docks on Lake Monroe (Monroe Co.), as well as the Country Squire Lakes trailer park (Jennings Co.). An associated region of broad rotation eventually lead to the squall line spawning a brief **EF-0 tornado** west of Millhousen (Decatur Co.), with the only damage being to a lean-to roof and wall on a farm outbuilding, while a small horse trailer was picked up and thrown northward.

On the **12th**¸ elevated late morning thunderstorms produced a gust of **59 mph** at Indianapolis Int'l Airport. The **15th** found weak early evening showers produce briefly strong wind gusts courtesy of very dry, and relatively warm, low-levels; including a gust of **61 mph** at the Delaware County Airport. Lastly, April **23rd**'s breezy, non-severe-magnitude winds unfortunately downed a large dead tree in the Indian Oaks Campground (Owen Co.), killing two children.

MAY 2022 was active with severe weather, mainly during the latter portions of the month and especially on the **19th-20th**, **21st**, and **25th**. Seven days included over 50 reports of damaging winds and/or large hail, as well as **6 tornadoes** that occurred over 3 days.

The **6th**'s isolated thunderstorms across southern counties led to a brief **landspout tornado** between Bobtown and Rockford (Jackson Co.). On the **14th** an approaching, weakening cold front generated numerous slow-moving storms, two of which produced marginally large hail: there were enough hailstones up to **1.00"** to cover a roadway near Stinesville (Monroe Co.), while hail up to **1.25"** fell within a torrential downpour in Monrovia (Morgan Co.).

The **19th**'s approaching warm frontal zone promoted numerous afternoon supercell t-storms; reports included **2.00" hail** just north of Sandborn (Knox Co.); **1.75" hail** south of Newberry (Daviess Co.) that destroyed corn, soybeans and fully headed wheat, stripping 1,000 acres to stubs; while additional reports of large hail came from Mitchell (Lawrence Co.), and near Loogootee (Martin Co.) where hail as large as **2.75"** fell. Several hours later, a rotating cluster of thunderstorms brought wind damage to mainly far southern zones. An **EF1 tornado** led this cluster, entering Indiana and tracking along the Knox-Gibson County line before finally ending west of Monroe City (Knox Co.), some 32 miles after spawning in Keensburg, Illinois; through Knox County the tornado caused ample tree and utility pole damage, especially in the town of Decker, blew over 7 irrigation sections, and destroyed a large barn (just before lifting), scattering debris several hundred feet across adjacent fields. Additional wind damage late on the **19th** included a tractor-trailer blown over on US-41 just north of the tornado track; and over a dozen trees blown over in Hazelwood (Hendricks Co.). Going into very early on the **20th**, straight line winds estimated at 85 mph caused damage to stadiums at Kasting Park in Seymour (Jackson Co.), before winds downed numerous trees and utility lines northeast of North Vernon.

The **21st**'s approaching cold front produced a line of afternoon severe storms south of the I-70 corridor. The first straight line wind damage reports ranged from a grain bin being blown onto a house in Arney (Owen Co.) to damaged buildings across Lawrence County, while winds also downed trees in Monroe and Morgan Counties. The line strengthened and spawned **four** weak, mainly brief **tornadoes**: an **EF0** north of Taggart (Brown Co.), an **EF0** on Camp Atterbury grounds (Johnson Co.), a long-track **EF1** from north of Edinburgh to west of Waldron (across southern Shelby Co.), and finally a brief **EF1** in the Auburn Hills subdivision east of Edinburgh (Shelby Co.). The brief tornadoes caused mainly tree damage, although the Camp Atterbury twister blew off a church steeple and lifted several vehicles. The Shelby County long-track EF1 skipped along its 15-mile track, downing or uprooting many trees, with damage maximized in Mt. Auburn, before it completely destroyed a barn and then 3 of 5 silos (with estimated **110 mph** winds – the strongest so far for central Indiana in 2022) as it approached Indiana Route 9. Much straight line wind damage also surrounded the four tornadoes. The squall line remained potent, with further straight line winds producing widespread downed large trees in Decatur County, and a **71 mph** gust measured at the Columbus Municipal Airport (Bartholomew Co.), as well as estimated 75-80 mph winds northwest of Greensburg (Decatur Co.).

The **25th** found numerous early evening thunderstorms track quickly northward over counties north of the I-70 corridor. Scattered straight line wind damage occurred across Boone, Clinton and Madison Counties. Later, estimated **70 mph** winds snapped a large tree in Frankfort, before winds blew off a large metal garage roof west of Sharon (Carroll Co.).

Several very strong thunderstorms occurred during the late day and early evening hours of the **26th** from the Lafayette area, down across west-central counties. Severe weather reports were

limited to a brief **landspout tornado** just north-northeast of the I-74 interchange with IN-25. The tornado was rated EF-Unknown (EFU) per lack of any observable damage.

For info on severe weather in other areas during the spring season, visit the Storm Prediction Center "Severe Weather Event Summaries" website at spc.noaa.gov/climo/online

Miscellaneous Weather

MARCH 2022 was noteworthy for several days of very strong to marginally severe measured wind gusts; Indianapolis led the seven 1st-order airports with 6 such days, with peak gusts of 50-**58 mph** reported on the **5th**, **6th**, **22nd**, **25th**, **30th**, and **31st**. Severe gusts across the region included Indianapolis–Eagle Creek reaching **59 mph** on both the **6th** and **25th**, with Indianapolis Int'l recording a **58 mph** peak gust on the **25th**; and Muncie registering **61 mph** late on the **30th**. Lafayette observed peak gusts of 56 and 54 mph on the **6th** and **25th**, respectively; while March ended like a lion at Terre Haute and Shelbyville, with gusts of 57 and 52 mph, respectfully, early on the **31st**.

Fog frequency ranged from 8 days at Muncie to 17 at Lafayette, while Indianapolis reported fog on 10 days. All of the 7 airports observed fog on the **11th**, **18th**, **19th**, **22nd**, and **25th**; with fog also common on the **6th**, **7th**, **23rd**, **24th**, **30th**, and **31st**; Lafayette recorded fog on all but one day during the **15th–26th**. Dense fog was rare, only being reported on the **17th** at Shelbyville and the **20th** at Lafayette.

Thunder frequency ranged from 2 days at Lafayette to 6 at Indianapolis. These occasional rumbles generally paralleled the several days of severe weather: with thunder reported at all 7 sites on the **6th** and **18th**, while also common on the **7th** and **23rd**, with Indianapolis and a few other sites additionally reporting thunder on the **22nd** and **25th**. No lightning was reported over the region throughout the passing system on the **30th-31st**.

On the **5th**, south-southwesterly gusts as high as 40 mph and record warmth led to minimum relative humidity values under 25% east of the Wabash Valley, with the Marion County sites dropping to ~**15%**. This caused a 20-acre forest fire southwest of Nashville (Brown Co.). Five households were evacuated, with 12 volunteer fire departments on site to help extinguish the blaze. Very dry afternoons also occurred on the **14th** and **21st** with 1st-order sites east of the Wabash Valley again dropping below 25% relative humidity, with Marion County airports bottoming out in the 18-20% range both days. The **30th** found marginally-dry conditions across eastern counties with Shelbyville and Muncie's humidity falling in the early evening to 24% and 22%, respectively.

Bob McLain noted Castleton 2 S's lowest barometer reading for the month was 29.23" (**31st**).

APRIL 2022 found occasional strong and a couple severe wind gusts across the seven 1st-order airports from the **11th** to the **24th**. Indianapolis observed **59 mph** from the south-southwest on the **11th** (see severe section above), before Muncie recorded **61 mph** from the west on the **15th**. Also noteworthy was Lafayette's gust to 50 mph on the **14th**. Peak gusts of 45-50 mph were common on the **15th**, as were gusts as high as 40-48 mph on both the **20th** and **24th**.

Fog was frequent amid the rather damp conditions, ranging from 12 days to as many as 15 days at Indianapolis and Terre Haute. All seven 1st-order airports observed fog on the **5th**, **6th**, **9th**, **13th**, and **21st**, with fog also common on the **1st**, **8th**, **11th**, **12th**, **18th**, **22nd**, **24th**, **25th**, **and 30th**. Dense fog was rare, only being reported on the **12th** at Muncie and Indianapolis – Eagle Creek, on the **13th** at Bloomington and on the **22nd** at Shelbyville. Most notable were the **26 days** at Indianapolis when the wind gusted to 25+ mph – this was the greatest frequency of any month at Indy since at least July 2018, and well above the second highest count of these last ~4 years, 22 days in March 2021.

Thunder days were rather modest for mid-spring, ranging from 2 days at Muncie to 5 days at Bloomington, with most 1st-order sites reporting thunder on 4 days. Thunder was common on the **11th, 13th, 24th** and **25th**, and all 1st-order sites observed thunder on the **30th**.

While not as common as March 2022, the relative humidity did reach very low levels during the early to mid afternoon of the **15th**, including 13% at Muncie, 16% at Shelbyville, and 17% at Indianapolis. The associated dry lower levels of the atmosphere contributed to the rather potent wind gusts produced by otherwise weak rain showers early that evening (see severe section above).

Central Indiana's many COOP observers also provided several noteworthy remarks with their daily reports. Spencer (Owen Co.) observed frost on the mornings of both the **2nd** and **6th**. On the **13th**, the Oolitic Purdue Experimental Farm (Lawrence Co.) reported "a few pieces of small, pea sized hail about 7 p.m." The morning of the **27th** found frost reported at Tipton 5 SW (Tipton Co.) as well as "patches of light frost" at Castleton 2 S (Marion Co.). Lastly, Lebanon 6 W (Boone Co.) remarked "breezy" or "windy" on 16 days, including the **8th**-**10th** and **15th**-**20th**; and Bob McLain noted Castleton 2 S's barometer readings for the month ranged from 29.53" (**6th**) to 30.41" (**22nd**).

MAY 2022's severe weather did not intersect with any of the seven 1st-order airports, although these sites did record a few strong wind gusts. 49 mph was observed at both Lafayette on the **14th** and Bloomington on the **21st**, while Shelbyville recorded 47 mph on the **21st**. Indianapolis' peak wind gust for the month was 46 mph from the west on the **3rd**. While very strong gusts were not common, the majority of 1st-order sites recorded wind gusts of 30 mph or greater on 13 days, continuing the breezy trend from April 2022.

Fog was quite common, with frequency ranging from 14 days at Muncie and Indianapolis-Eagle Creek to 18 days at Bloomington. All 1st-order airports observed fog on the **3rd**-**6th**, **18th**, **19th**, **22nd**, and **25th**-**27th**, with fog also common on the **1st**, **7th**, **15th**, **16th**, **20th**, and **21st**. Dense fog was observed on the **6th** at Indianapolis and Terre Haute, on the **15th** at Lafayette and Terre Haute, on the **18th** at Bloomington and Shelbyville, at **all sites** on the **19th**, and Lafayette again on the **28th**.

Thunder frequency ranged from 4 days at Lafayette to 9 days at Muncie, with most 1st-order sites reporting thunder on 5 or 6 days. Thunder was common on the **1st**, **14th**, **15th**, **19th**, and **20th** and reported at all sites on the **21st**.

Unseasonably high humidity was seen across the region late on the **10th**, when robust southerly winds boosted dewpoints into the low 70's for many locations, including Indianapolis, which had not been so humid this early in the year since 2001. Relative humidity then reached 20% or less over most locations on the **12th**, with Muncie and Shelbyville recording the lowest values (16%). Muncie's relative humidity also dropped as low as 20% on the **15th**, and 25% on the **16th**.

Central Indiana's many COOP observers provided several noteworthy remarks with their daily reports. Lebanon 6 W (Boone Co.) noted "cool, gloomy" each day during the **4th**-**6th**; Bob McLain at Castleton 2 S (Marion Co.) also reported a relative minimum barometer reading of 29.55" on the **6th**. On the **10th**, the Oolitic Purdue Farm commented "heavy dew on grass", while Lebanon 6 W remarked "hot and more humid with hazy sun most of the day". "Sunny. Hot." was mentioned by Elnora on each day during the **10th**-**13th**. The **14th** brought "pea-sized hail" at Elnora (Daviess Co.), and a "45 mph wind gust in afternoon" at the Oolitic Purdue Farm. On the **19th**, Perrysville 4 WNW remarked, "dense fog, visibility less than ¼ mile, calm to light winds at observation", while Castleton 2 S recorded their minimum barometer reading of the month at 29.54". The **19th**'s thunderstorms were active over southwestern counties – Elnora noted "high winds and sporadic 1-inch hail", Vincennes 4 E (Knox Co.) observed "hail ranging from dime to quarter sized occurred 3 times within 25min, and was fast-melting due to accompanying heavy rain", and Vincennes 5 NE noted there was enough "white, irregular-shaped marble size hail 545-550P to cover the ground". On the **21st**, Spencer (Owen Co.) reported "dime-sized hail and trees down at 301P". The month closed with Elnora mentioning "Sunny. HOT." on May **31st**.

Indianapolis Spring 2022 Monthly Data

INDIANAPOLIS **MARCH 2022** SUMMARY

	Average Temp	Precipitation	Snowfall	Highs ≥ 70°/80°
March 2022	**45.5**	**4.67**	**T**	**5/0**
Normal March	42.4	3.69	3.2	3/0
Diff from Normal	**+3.1**	**+0.98**	**-3.2**	**+2/0**

March 2022 All-Time Ranks... **Temperature: 28th Warmest**
Precipitation: 40th Wettest **Snowfall: 2nd Least Snowiest** (Tied)

INDIANAPOLIS **APRIL 2022** SUMMARY

	Average Temp	Precipitation	Snowfall	Highs ≥ 70°/80°
April 2022	**51.5**	**4.42**	**1.0**	**5/2**
Normal April	53.7	4.34	0.2	10/2
Diff from Normal	**-2.2**	**+0.08**	**+0.8**	**-5/0**

April 2022 All-Time Ranks... **Temperature: 55th Coolest** (Tied)
Precipitation: 43rd Wettest (Tied) **Snowfall: 24th Snowiest** (Tied)

INDIANAPOLIS **MAY 2022** SUMMARY

	Average Temp	Precipitation	Snowfall	Highs ≥ 70°/80°
May 2022	**66.1**	**3.77**	**0.0**	**22/14**
Normal May	63.6	4.75	0.0	21/10
Diff from Normal	**+2.5**	**−0.98**	**0**	**+1/+4**

May 2022 All-Time Ranks... **Temperature: 27th Warmest**
Precipitation: 76th Driest / 77th Wettest

INDIANAPOLIS SPRING 2022 SUMMARY

	Average Temp	Precipitation	Snowfall	Highs ≥ 70°/80°
Spring 2022	**54.4**	**12.86**	**1.0**	**32/16**
Normal Spring	53.2	12.78	3.4	33/12
Diff from Normal	**+1.2**	**+0.08**	**-2.4**	**−1/+4**

Spring 2022 All-Time Ranks... **Temperature: 23rd Warmest** (Tied)
Precipitation: 54th Wettest **Snowfall: 32nd Least Snowiest** (Tied)

Summer 2022 Outlook for Central Indiana

The official outlook for the 2022 summer season (June-August) from the Climate Prediction Center, indicates a slightly greater chance for above normal temperatures across central Indiana. The outlook also indicates equal chances of above, below or near normal summer precipitation for central Indiana.

At Indianapolis, the normal summer temperature is **74.3** degrees and the normal summer precipitation is **12.57”**.

Data prepared by the NWS Indianapolis Weather Forecast Office’s Indiana State Climate Team
Questions should be referred to w-ind.webmaster@noaa.gov