



The Hoosier Observer

Indiana CoCoRaHS monthly e-newsletter

September 2024

August 2024 Statistics	
Total observers reporting	623
Observers with no missing reports	345
Percent of total	55
Average Daily Reports per Day	486
Max # of Daily Reports and Day	540 /28
# Days with 400 Reports	31
# Days with 500 reports	4
Significant Weather Reports	12
Condition Monitoring Reports	48
E-T Reports	214

Coordinator Update

It's been a very dry start to September and we've noticed a steep dropoff in the daily reports so far for the month. Entering your zeroes continues to be important as some data users can only use your data if you have a certain percentage of daily reports.

Your [condition monitoring reports](#) are more important than ever in these periods of exacerbating drought. Your ground truth is used and can help to inform the drought authors of how the lack of rain is impacting your backyard.

We'd also like to recognize the 5 new Indiana observers (Carroll, Delaware[2], Harrison, Tippecanoe) that

August 2024 Precipitation

Austin Pearson, Indiana State Climate Office

For August 2024, Indiana experienced widespread below-normal precipitation. Central and northern parts of the state recorded between 1 to 3 inches of rainfall, while southern Indiana saw totals closer to 1 inch (Figure 1). Statewide, Indiana's total precipitation was 2.56 inches—1.04 inches below the average for August—representing just 71% of normal rainfall.

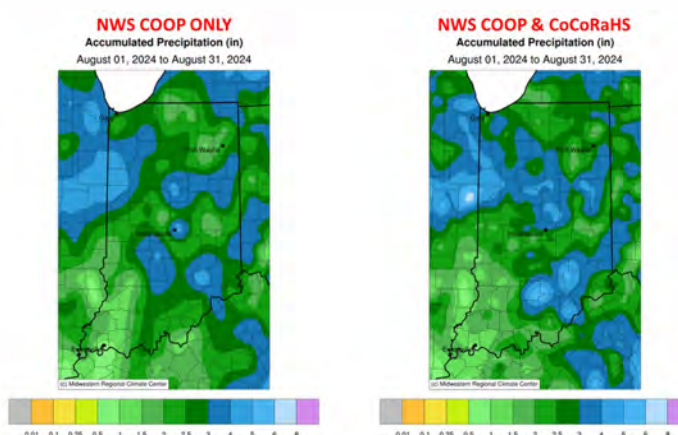


Figure 1: Accumulated precipitation for August 2024. Click for a larger image.

Most areas received 1 to 2 inches less rainfall than the 1991-2020 normals, translating to only 25% to 75% of typical precipitation for the month (Figure 2). Isolated pockets in central and southern Indiana reached or exceeded 100% of normal rainfall, but these instances were sparse.

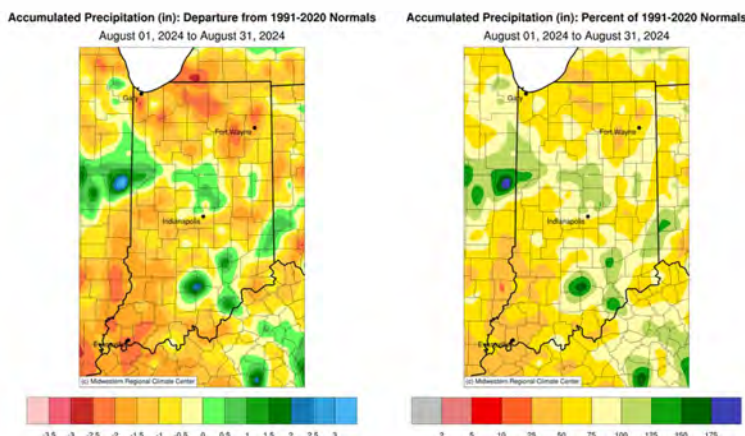


Figure 2: Left - Accumulated precipitation for August 2024 represented as the departure from normal. Right - Accumulated precipitation for August 2024 represented as the percent of normal.

CoCoRaHS station totals, reporting 100 percent of data, ranged from 0.62 inches to 7.15 inches in August. The highest and lowest precipitation totals for stations reporting

joined CoCoRaHS in the last month. Thanks for joining the team!

Archived Newsletters

If you are ever interested in viewing past issues of *The Hoosier Observer*, visit the [State Newsletter Archive](#) on the CoCoRaHS website and scroll down to Indiana.

100 percent are detailed below (Figure 4).

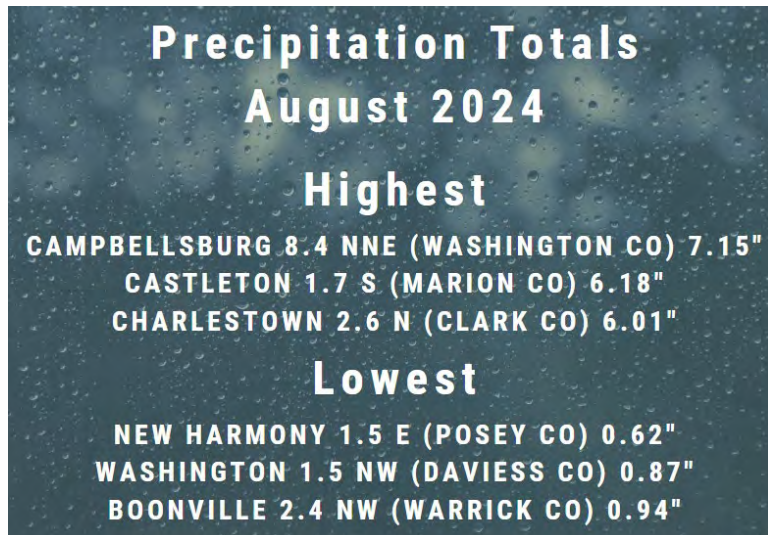
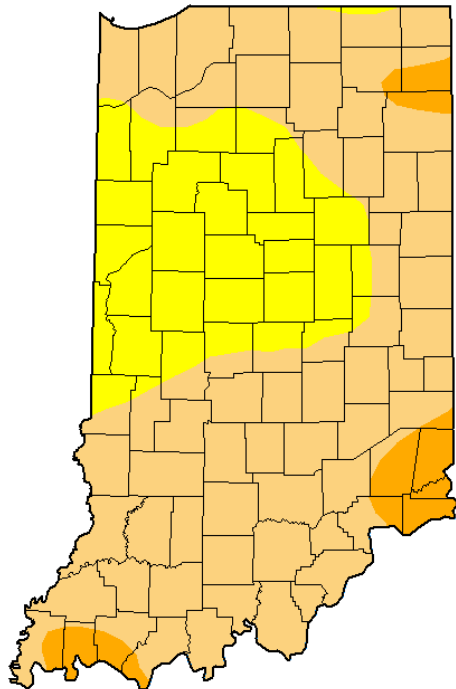


Figure 4: High and low precipitation totals for August 2024 in Indiana. CoCoRaHS stations considered were those that reported 100% of data.

Indiana Drought Update
Austin Pearson, Indiana State Climate Office

What does this week's Drought Monitor look like for Indiana?

U.S. Drought Monitor
Indiana



September 17, 2024
 (Released Thursday, Sep. 19, 2024)
 Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	71.73	6.07	0.00	0.00
Last Week <small>09-10-2024</small>	8.02	91.98	50.50	0.98	0.00	0.00
3 Months Ago <small>06-19-2024</small>	25.84	74.16	0.00	0.00	0.00	0.00
Start of Calendar Year <small>01-02-2024</small>	10.70	89.30	81.12	12.88	0.00	0.00
Start of Water Year <small>09-26-2023</small>	1.38	98.62	85.30	0.00	0.00	0.00
One Year Ago <small>09-19-2023</small>	6.82	93.18	32.80	0.00	0.00	0.00

Intensity:

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

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

Author:

Brad Rippey
 U.S. Department of Agriculture



droughtmonitor.unl.edu

Drought conditions are intensifying statewide, with every region now categorized under Abnormally Dry (D0), Moderate Drought (D1), or Severe Drought (D2) drought status. Stream flows and water levels have significantly declined, soil moisture is critically low, and vegetation is parched. Mowing activities have nearly ceased, which may be a silver lining given the

circumstances. Burn bans have been enacted in many counties. Fortunately we received a bit of rain over the weekend.

During these drought conditions, your CoCoRaHS zero precipitation observations and condition monitoring reports are crucial. Many locations across the state, consistently reporting, have not recorded any precipitation in nearly two weeks. Coupled with high daytime temperatures, abundant sunshine, and low humidity, the situation has deteriorated rapidly.

What goes into the Drought Monitor?

The U.S. Drought Monitor is a weekly drought map released every Thursday, often seen in media with color-coded areas of yellow, orange, and red. It highlights the severity and location of drought conditions across the U.S. and its territories. There are [six categories](#): no drought, abnormally dry (D0), and four drought levels—moderate (D1), severe (D2), extreme (D3), and exceptional (D4).

Each week, the Indiana State Climate Office leads the Indiana Drought Task Force in collaboration with agencies such as the National Weather Service, Department of Natural Resources, Homeland Security, Environmental Management, and other state organizations. These discussions focus on evaluating current conditions and recommending a drought status for Indiana. Data consisting of historical precipitation totals (CoCoRaHS included), various drought indices, river and stream flows, and reported drought impacts from Purdue Extension Educators, are considered in an initial drought recommendation map. This draft is then refined and submitted to the national Drought Monitor author by Tuesday for inclusion in the weekly update. While Indiana provides recommendations, the final decision lies with the Drought Monitor author.

Double-Check Your Observation After Submission

Adapted from Steve Hilberg, CoCoRaHS

Many errors can be avoided if observers take a moment to review their observations after submitting them. Both the website and the mobile app display your submission immediately, so check it before closing the page or app. We've all made errors—like intending to type 0.05 but accidentally entering 0.50 or 5.00. Such discrepancies can become glaringly obvious on the map if not corrected promptly.



If you notice a mistake after submitting, you can edit your report. To do so on the website, log in and select "LIST/EDIT MY REPORTS." Click the pencil icon next to the report you need to correct. On the mobile app, you can edit reports through the History option.

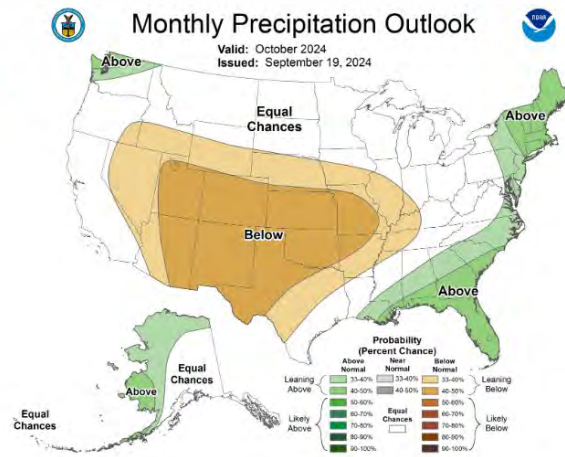
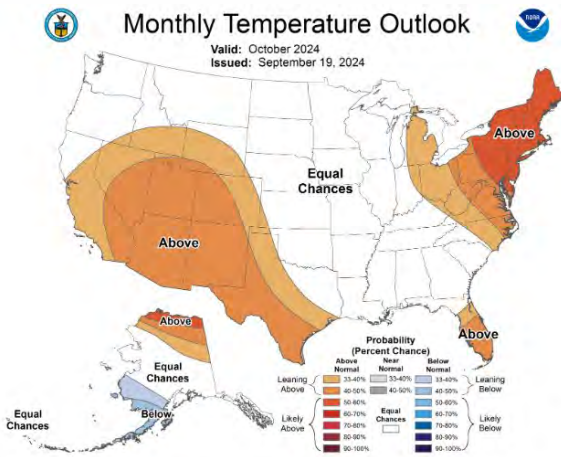
Fall 2024 Climate Outlook: Drought Leaves Hoosiers searching for rain;

La Niña anticipated prior to the start of meteorological winter

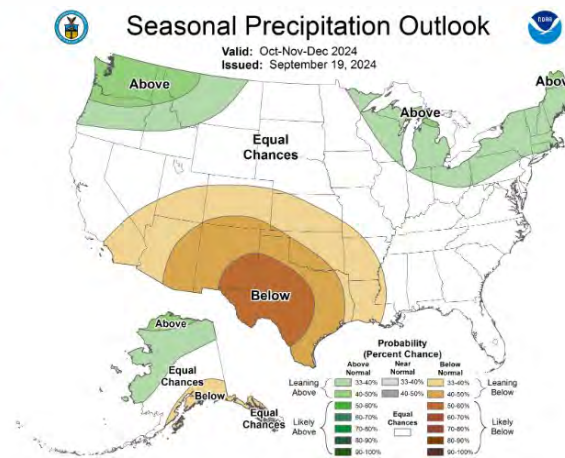
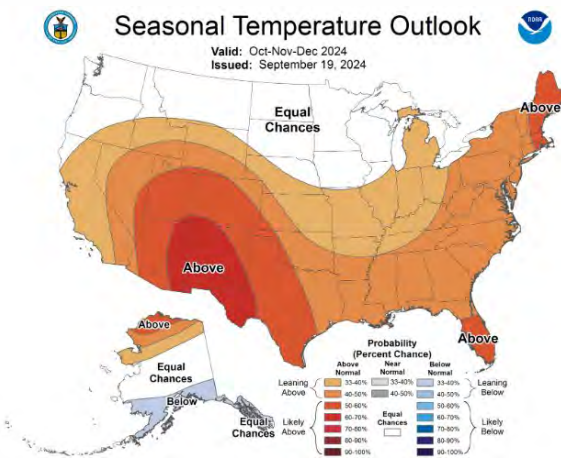
Kyle Brown, Meteorologist, NWS N. Indiana

Hot and very dry conditions for much of September have Hoosiers searching for rain. Drought conditions rapidly expanded across the state these past few weeks. According to the US Drought Monitor, Severe Drought (D2) is underway in locations in or around Fort Wayne, Versailles, and Evansville. Burn-bans became common across a number of counties as grass went dormant following a nearly 3-week stretch of dry weather.

The updated outlook for October from the Climate Prediction Center suggests there is an equal chance of above-or-below normal precipitation for most of the state, aside from the far southwest where below-normal precipitation is favored. This targeted area of dryness is driven by strong model agreement. With respect to temperatures, the eastern third of Indiana is favored to experience above-normal temperatures due in part to long term trends. Developing La Niña conditions were not a consideration within the October outlook.



Meanwhile, for the remainder of the calendar year, the forecast leans toward above-normal temperatures for the state, paired with above-normal precipitation over northern and northeast Indiana. This wet-leaning forecast is a result of recent trends in the long-lead forecast since the previous outlook. The remainder of the state's precipitation outlook indicates equal chances for above-or-below normal precipitation.



ENSO-neutral conditions are present while confidence remains high that La Niña conditions will emerge between now and November. This anticipated La Niña has been slow to evolve and is forecast to be rather weak. A suite of dynamical models favors a weak La Niña for the winter months. There is a large spread in the magnitude of this anticipated La Niña, but this guidance seems clustered near -0.5 or -1.0 Oceanic Niño Index. This is perhaps comparable to La Niña winters of 2022-2023, 2017-2018, or 2011-2012. Note that the sample size is small, but these winters were warm across the state with above-normal precipitation and below normal snowfall at most climate sites. NOAA's official winter outlook is typically published at the end of October.

What to do with Dew
Adapted from Steve Hilberg, CoCoRaHS

During this time of year, we often experience warm days followed by cool nights, and dew formation becomes more common, especially on clear, cool nights or after rain. Sometimes, dew just creates a mist on your car windshield and rain gauge, but on other mornings, you might find your shoes soaked from walking through the grass. Dew can accumulate on both the outside and inside of your rain gauge funnel, and if it's heavy enough, droplets might flow down into the

inner measuring tube. You might discover a Trace, 0.01, or even 0.02 inches of water in your gauge due to dew. So, what should you do?

Since dew is condensation (forming on the surface of objects) rather than precipitation (falling from the sky), it should not be reported as Daily Precipitation. Avoid reporting a Trace for dew. However, you can note heavy dew and any measurements in the comments section.

If you're unsure whether it rained, consider whether rain was in the forecast or if there were other signs like clouds or overcast conditions. You can enter the amount of water in the gauge as precipitation and include a note about the dew and any uncertainty regarding rain. Sometimes, being an observer means putting on your detective hat!



If You Move, or Change Your Email Address

If you're moving to a new home and want to keep participating in CoCoRaHS, please let us know as soon as possible. Your observations are tied to a specific location, so we want to make sure that your new observations are correctly associated with your new address. Observations are most valuable when they are consistent at one location, so you might also suggest to the new owner or tenant of your current home that they consider joining CoCoRaHS. We have a brochure available for download, print, and distribution.



Once you have your new address, inform us so we can close your old station and set up a new one at your new location. Please avoid signing up for CoCoRaHS again yourself. Once we've set up your new station, you can start entering observations from your new location. If you're moving to a different state, we can connect you with the state coordinator there to help you get started.

If you change your email address, please update your record in the CoCoRaHS database by logging in, selecting "My Account" from the top menu, and clicking "Edit" in the "My Information" section. Make your updates and click "Save."

Also, send a quick message to in-sco@purdue.edu with your new email address so we can update our newsletter mailing list, which is maintained separately from the main CoCoRaHS database.

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