



# The Hoosier Observer

Indiana CoCoRaHS monthly e-newsletter

August 2024

## July 2024 Statistics

Total observers reporting	628
Observers with no missing reports	348
Percent of total	55
Average Daily Reports per Day	484
Max # of Daily Reports and Day	557 /10
# Days with 400 Reports	31
# Days with 500 reports	5
Significant Weather Reports	20
Condition Monitoring Reports	44
E-T Reports	212

## Coordinator Update

This month we set a new record which was the maximum daily reports in a single day with 557 on July 10th. Thank you to everyone who entered a report that day which saw widespread precipitation across the state. If you happened to report in just that one day which some of you did, we encourage you to continue to find other opportunities to report going forward.

Entering those zeroes remains very important, especially now that most folks are finishing their summer travels and getting back into the swing of things. We've seen an uptick in the number of stations that

## July 2024 Precipitation

Austin Pearson, Indiana State Climate Office

In July 2024, Indiana recorded a total precipitation of 5.11 inches statewide, exceeding the normal by 0.82 inches, or 119 percent of normal. The heaviest rainfall occurred in southwestern and northwestern Indiana, largely due to the remnants of Hurricane Beryl and several storm systems that passed through the region throughout the month (Figure 1).

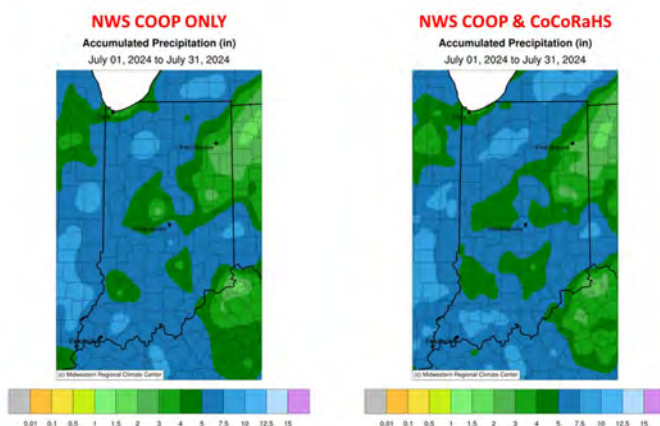


Figure 1: Accumulated precipitation for July 2024. Click for a larger image.

While most of the state received adequate to above-normal precipitation, northeastern Indiana lagged behind, with totals falling below 75 percent of the normal levels (Figure 2).

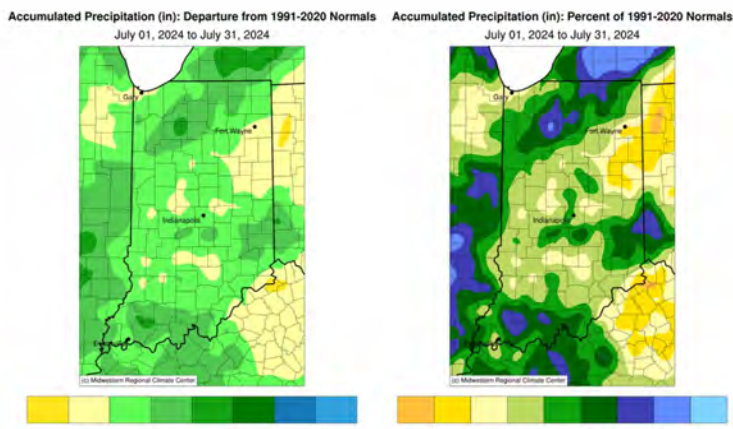


Figure 2: Left - Accumulated precipitation for July 2024 represented as the departure from normal. Right - Accumulated precipitation for July 2024 represented as the percent of normal.

By the end of July, drought conditions had improved across much of Indiana, although some areas in the western, southeastern, and northeastern regions remained classified as abnormally dry. The 4-week US Drought Monitor Class Change Map indicated 1-2 category improvements throughout most of central and southern Indiana, with no

almost had a complete month of observations with only a few days missing. We would love to see fewer of those 'almost complete' records and more complete months as we transition into the fall.

We'd also like to recognize the 14 new Indiana observers (Franklin, Hamilton[2], Huntington, Lake, Marion, Morgan, Rush, Shelby, St. Joseph, Vanderburgh, Vigo, Warren, Wayne) that 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.

changes observed in east-central and southeastern parts of the state (Figure 3).

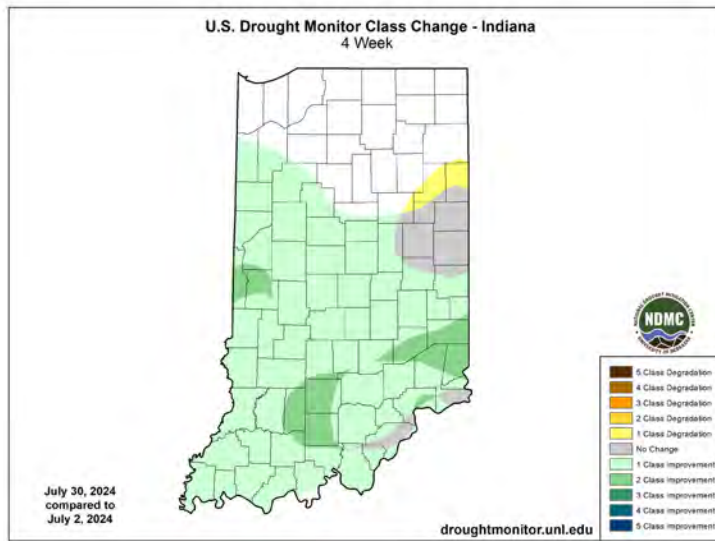


Figure 3: 4-week change map for the US Drought Monitor.

CoCoRaHS station totals, reporting 100 percent of data, ranged from 2.38 inches to 10.12 inches in July. The highest and lowest precipitation totals for stations reporting 100 percent are detailed below (Figure 4).

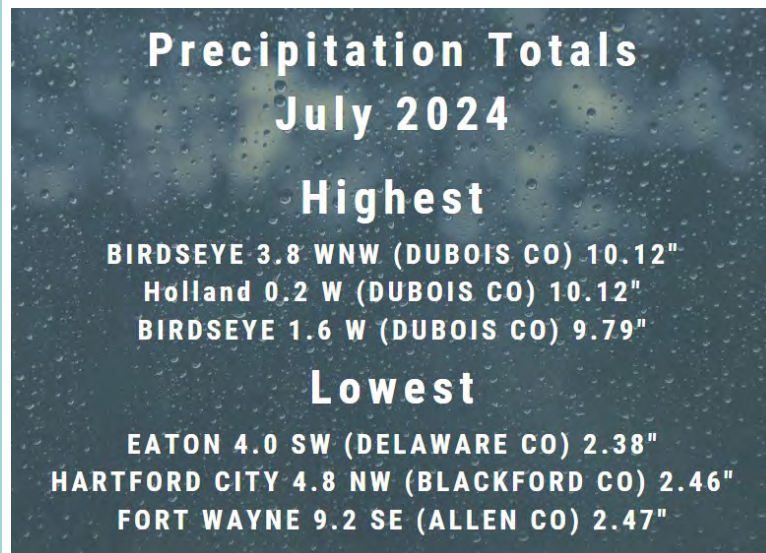


Figure 4: High and low precipitation totals for July 2024 in Indiana. CoCoRaHS stations considered were those that reported 100% of data.

### Rain Gauge Cleaning Steve Hilberg, CoCoRaHS

It can be a challenge keeping your rain gauge from looking grungy this time of year. Birds like to use them as perches and occasionally port-a-potties, bugs and spiders slide down the funnel and can't get out, and after a period of warm and wet or humid weather gunk can start accumulating in the bottom of the inner measuring tube. This year seems to be bad for the algae and gunk in the bottom. For the sake of accurate measurements (and nice photos of rain in your gauge) we

don't want dirt and bugs in the inner measuring tube.

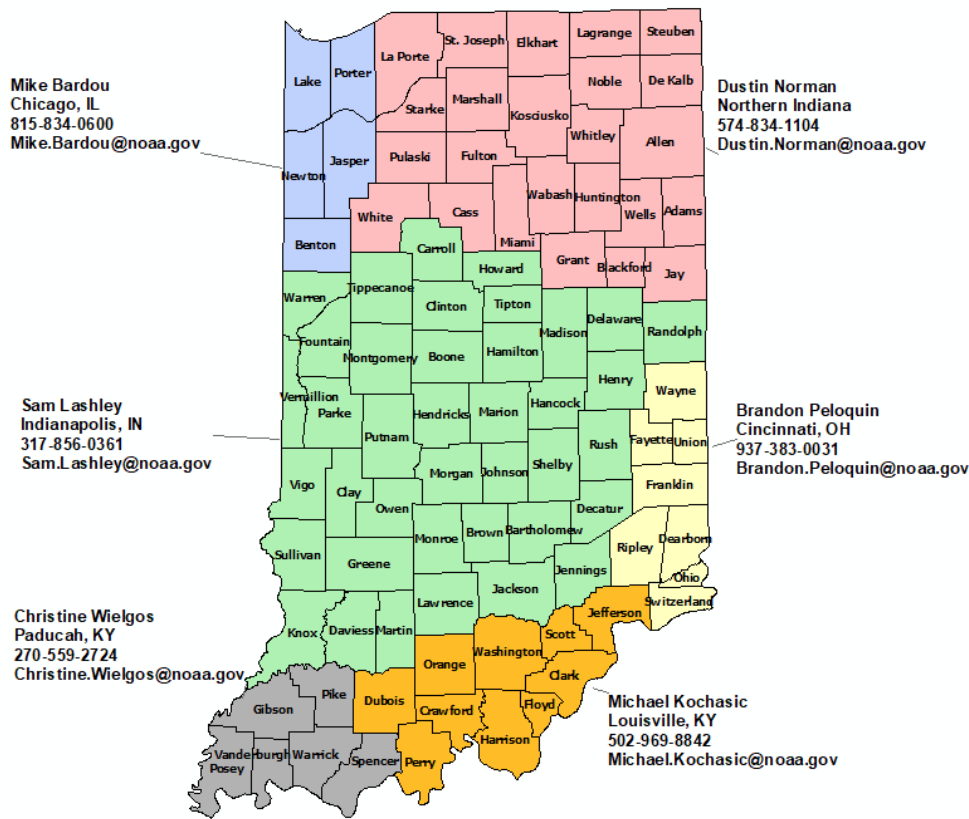
You can clean the inner measuring tube by pouring a little household bleach in the tube (a couple of hundredths worth). That will help dissolve any algae (the green stuff). You can also use liquid dish washing detergent. Use a soft bottle brush with a handle long enough to reach the bottom of the tube to clean out the bottom, and then rinse thoroughly. If you don't have a suitable bottle brush, take a double sheet of newspaper and roll it into a tight tube. Insert it to the bottom of the measuring tube and give it a few spins. Remove the roll of newspaper, rinse, and you should have a sparkling clean inner tube. If your outer tube needs cleaning, it is large enough to wash in a sink with any dish washing detergent.



### **How to Submit Storm Reports to the NWS**

*Adapted from Steve Hilberg, CoCoRaHS*

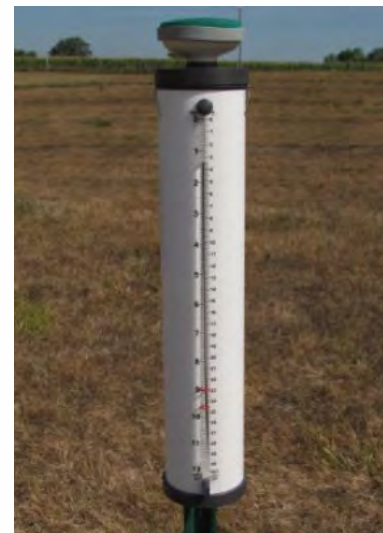
Many CoCoRaHS observers are also NWS Storm Spotters, but for those that are not you can still play a valuable role in relaying storm information. One way to do this is by submitting a CoCoRaHS Significant Weather Report, or in the case of hail, a CoCoRaHS Hail Report. Both of these are automatically routed to your local NWS office once they are submitted, but can only be submitted using the CoCoRaHS web site, not the mobile app. Outside of CoCoRaHS, storm information can be relayed to the NWS via social media (Facebook, Twitter), email, or a web-based form. You can get specific links and information for each NWS office at the following link: <https://www.weather.gov/stormready/in-cwa>



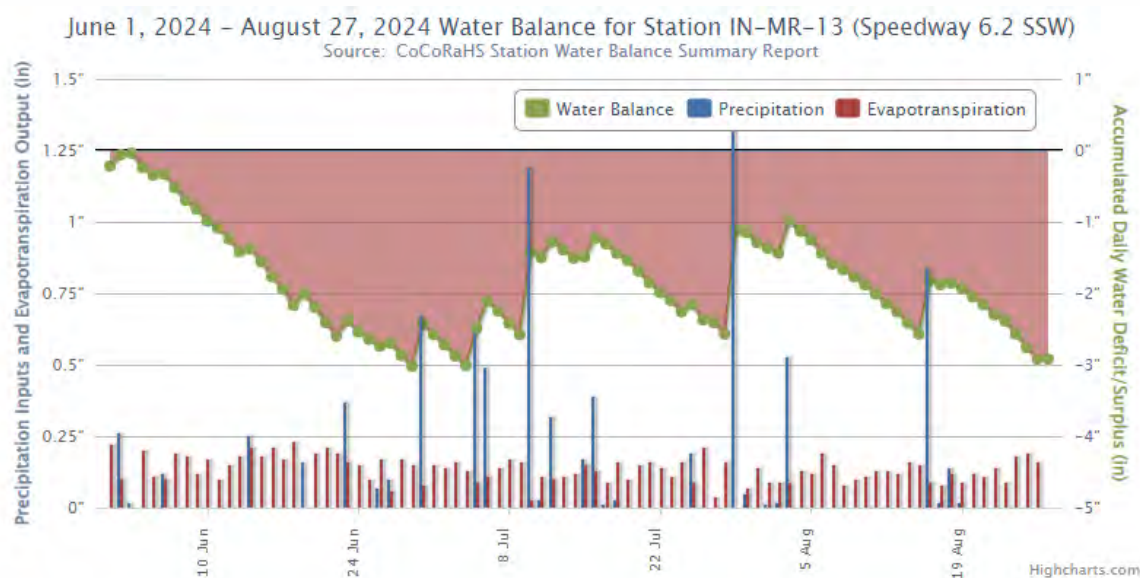
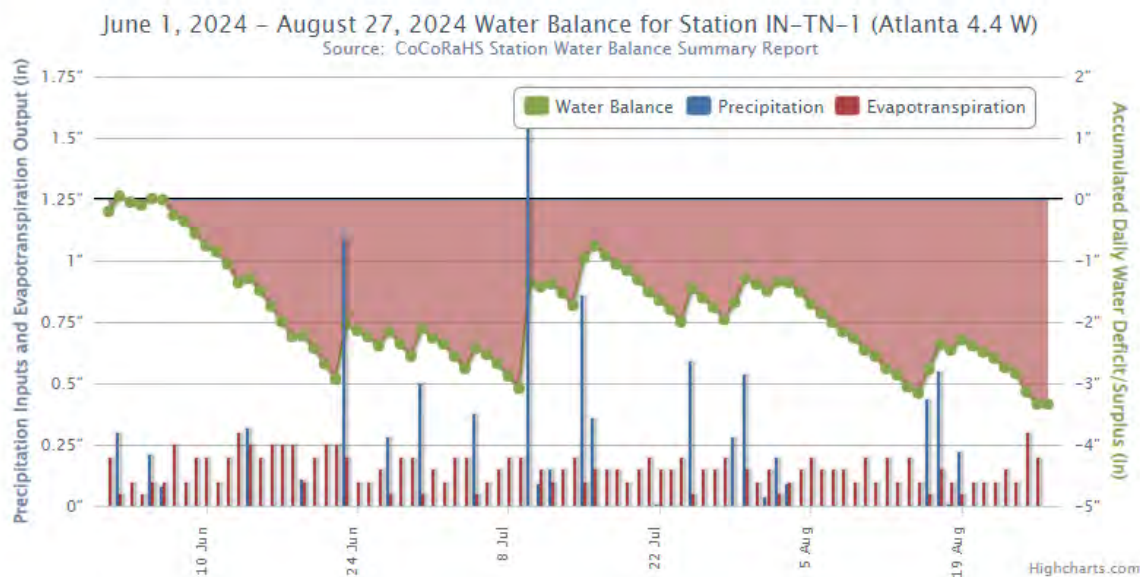
**Water Balance Summaries - A Snapshot of Summer**

*Adapted from Steve Hilberg, CoCoRaHS*

There are currently a few CoCoRaHS observers making evapotranspiration (E-T) measurements in Indiana. E-T is the water evaporated from the ground back to the atmosphere both as transpiration from the leaves of plants and also as direct evaporation from open water and soil. These measurements are made using an instrument called an atmometer. A ceramic evaporator at the top of the instrument responds as a leaf does to sun and weather. The evaporator draws water from the reservoir, and for each inch used by your plants, the level falls one inch in the sight tube. A canvas cover modifies the evaporation rate to simulate ET over turfgrass. The difference between precipitation and ET is called the water balance. The water balance charts provide a snapshot of the conditions at your location, and with these you can, for example, see the progression and regression of drought. Here is a comparison of water balance charts for two locations, one in Hamilton County in north-central Indiana, and one for a station in Marion County in central Indiana.







You can easily see the wet periods and dry periods during the late spring and early summer. In both charts you see that July rainfall cut the water balance deficit in both locations, but long periods of rain with moderate ET will build that deficit rather quickly. At this time both stations have a deficit of about three inches for the entire period. ET measurements will end in a couple of months when freezing nighttime temperatures return.

You can view these charts or tables of measurement for the station making these measurements through the View Data menu option (pictured right).

### Interested in becoming an ET observer?

#### Some things to consider as you apply:

1. We are looking for "ideal" locations (open exposures with surrounding vegetation that is representative of your area) and highly motivated observers (you have reported on a consistent daily basis for CoCoRaHS over

time).

2. You are up for the challenge of taking on a more complex daily observation.
3. You or a sponsoring organization are willing to make the substantial investment in purchasing this delicate instrument, the ETgage (\$317.25 plus tax and shipping from weatheryourway.com ).

#### Still interested?

Please contact Noah at [info@cocorahs.org](mailto:info@cocorahs.org) with a photo of the site where you will install the gauge and he will follow up with you.

**View Data**

- [Daily Precip Reports](#)
- [Daily Comments Reports](#)
- [Significant Weather Reports](#)
- [Multiple Day Reports](#)
- [Condition Monitoring Reports](#)
- [Condition Monitoring Charts](#)
- [Soil Moisture](#)
- [ET Reports](#)

- [Days with Hail](#)
- [Search Hail Reports](#)
- [Station Hail Reports](#)
- [Station Precip Summary](#)

- [Water Year Summary](#)
- [Station Precip Summary](#)
- [Station Snow Summary](#)
- [Rainy Days Report](#)
- [Total Precip Summary](#)

- [Station Water Balance](#)
- [Water Balance Summary](#)
- [Water Balance Charts](#)

#### If You Move, or Change Your Email Address

If you are moving to a new home and want to continue participating in CoCoRaHS, please let us know as soon as possible. Your observations are tied to a specific location, so we don't want observations from your new location associated with your previous location. The value of the observations increases with their continuity at a location, so consider suggesting to the buyer or new tenant of your home that they participate in CoCoRaHS! We have a brochure that you can download, print, and give to them.

When you know your new address, let us know. When you are ready, we will close your old station and open a new station at your new address. **Do not sign up for CoCoRaHS again.** Once that's done, you can enter observations from your new location. If you are moving to a different state, we can help you get in touch with that state coordinator so you can get started there.

If you change your email address, please update your record to keep it current. You can update your email address in the CoCoRaHS database yourself by logging in and clicking on "My Account" in the top line menu. Click on "Edit" in the "My Information" box. Make any corrections, then click "Save."

Please also send a message to [in-sco@purdue.edu](mailto:in-sco@purdue.edu) with the email change so we can update your address on our newsletter mailing list. This list is maintained separately from the main CoCoRaHS database.

[Follow IN CoCoRaHS on Facebook!](#)



### **Indiana CoCoRaHS Coordinators**

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