



Hello CoCoRaHS Observers!

We hope you are enjoying the summer weather- in between the cooler parts. We need widespread, beneficial rainfall. As of the beginning of June, parts of New Hampshire have descended into Abnormally Dry, according to the U.S. Drought Monitor. Abnormally dry conditions or drought are currently affecting approximately 306,000 people in New Hampshire, which is about 23% of the state's population.

As for Maine, no drought has been recorded through early June. However, the southwest part of coastal Maine has been relatively dry during the past few weeks, with Departure from Normal values ranging from 3-4 inches below normal during the past 30 days. This area in particular may be considered “in a drought” soon.

Among other problems, a lack of beneficial rainfall in NH and ME harms species such as brook trout populations, and honey production usually drops drastically.

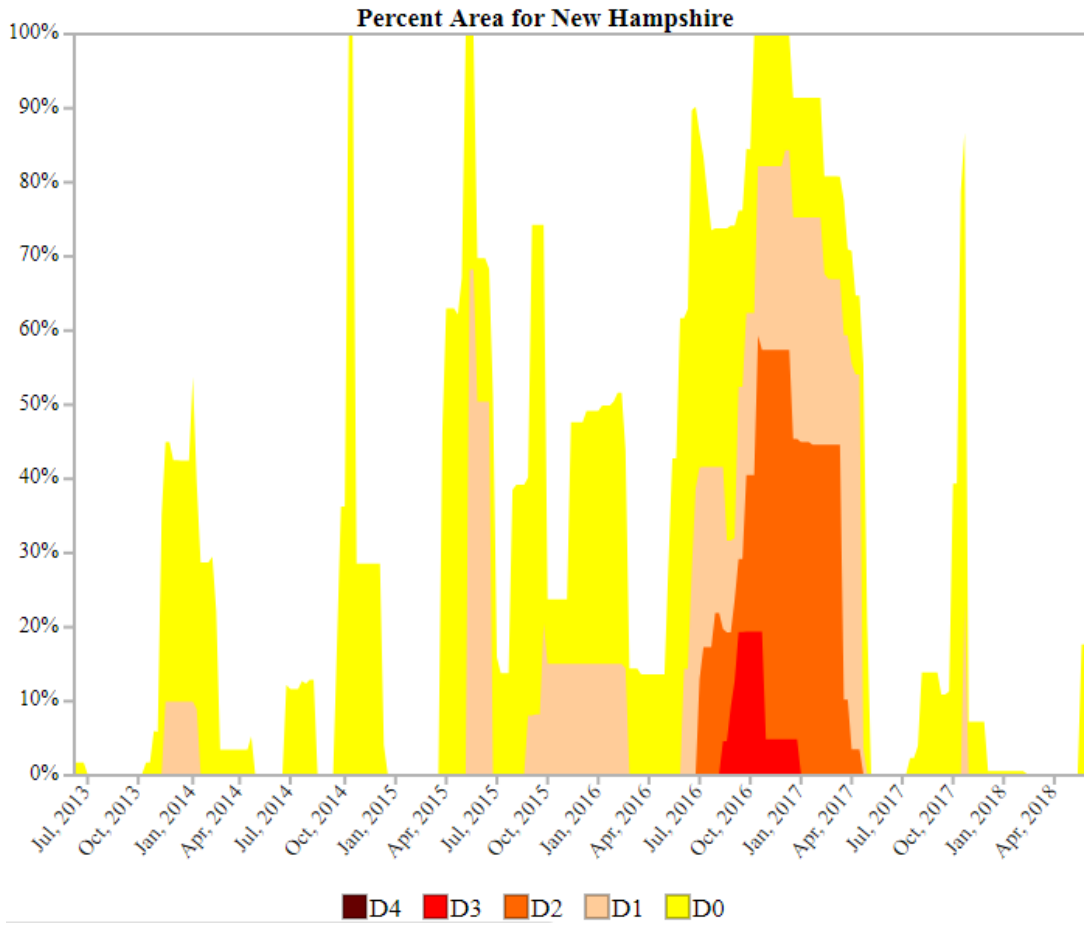


Figure 1: The Percent Area that NH is in drought and what drought category it is in.

Drought Intensities

- None: No Drought
- D0: Abnormally Dry
- D1: Moderate Drought
- D2: Severe Drought
- D3: Extreme Drought
- D4: Exceptional Drought



<http://droughtmonitor.unl.edu/>

Source: <http://www.drought.gov>

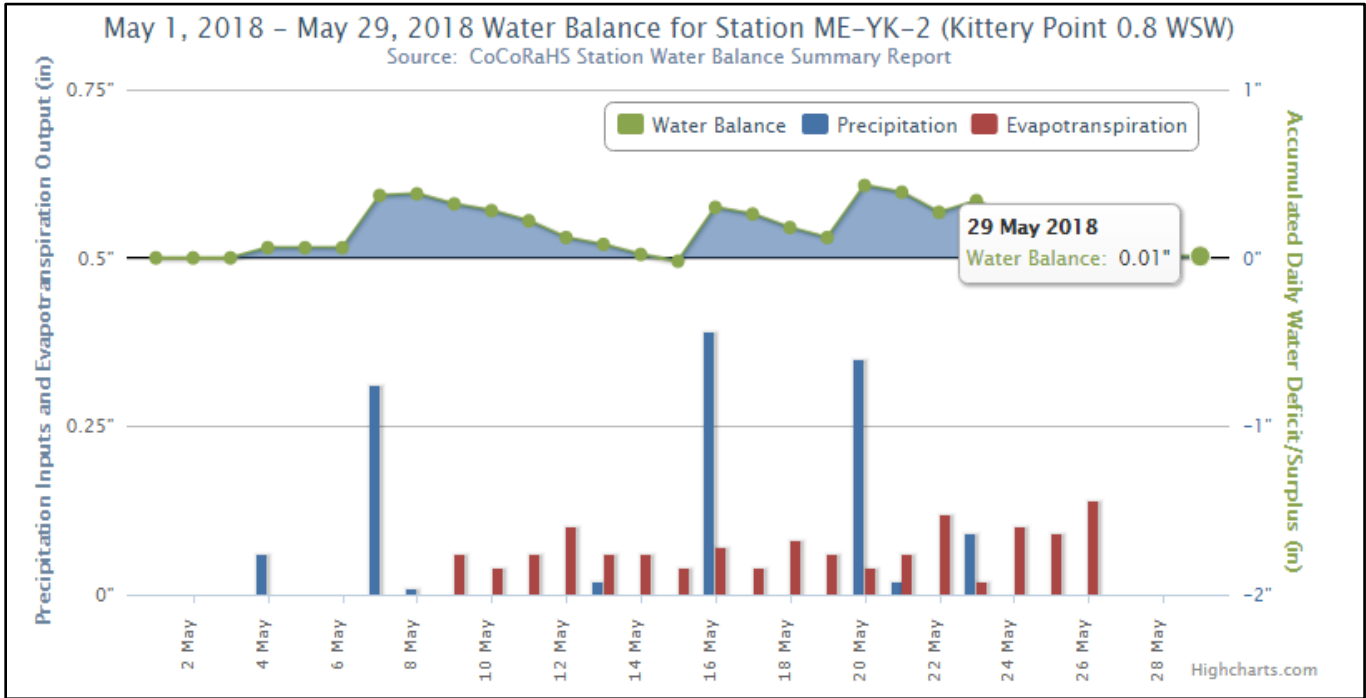


Fig. 1: Example of a Water Balance graph for ME-YK-2. Check out your station at <http://www.cocorahs.org/ViewData/>

The two largest components of the hydrologic cycle are precipitation and evapotranspiration ([Watch the CoCoRaHS Water Cycle Animation](#)). A water balance chart is basically a graphical accounting system to track incoming moisture (precipitation) and outgoing (evapotranspiration). When precipitation equals or exceeds evaporation, there is a surplus of water leading to lush vegetation, soil moisture recharge and possibly bountiful runoff and streamflow. But when evapotranspiration consistently exceeds precipitation, vegetation may wilt, streamflow may diminish and irrigation water may be required to keep lawns, gardens and fields green and growing.

Hurricane Names for the 2018 Season



Multi Day Reports- Are You Going out of Town for Vacation?

If you go out of town for several days, and come back to precipitation in your gage, what should you do? First off, **multi-day reports** are perfectly fine. We know you can't be there all the time! Putting a quick note in the Observation Comments section is a great way to let us know what we are looking at is a multi-day total, not just a mistake. For instance, you could write: "since Friday", "n-day total", or "storm total". This is a quick and helpful way to check for the multi-day reports.

One overall guiding principle to pass along as you submit reports is to spend just a few seconds looking over your report before pressing submit. Having the decimal point in the incorrect location, incorrect date or observation time, incorrect start or end date on the Multi-Day Report, or using the Daily Report instead of the Multi-Day Report are the most common errors that are found. That's before it snows again and we begin to report multiple values of snow and melted amounts.



State by state, CoCoRaHS grew to cover all states and most counties. Then the winter of 2010-2011 came along leaving a deep and widespread cover of snow and ice across the upper Missouri River Basin and parts of the southern Canadian prairies. As this snow melted in spring, torrents of flood waters inundated extensive areas of North Dakota, eastern Montana, and the entire flood plain of the Missouri River downstream all the way to St. Louis. Our Canadian neighbors also suffered weeks of hardship as flood waters from the Prairies made their way to Lake Manitoba and Lake Winnipeg. Lack of adequate data was blamed for some of the difficulties in predicting the magnitude, extent and timing of the flooding. The Canadian Wheat Board along with the Province of Manitoba reached out to CoCoRaHS and within a few months “CoCoRaHS Canada” was born. This Provincial effort quickly grew and now all parts of Canada can participate. This expansion required the addition of metric units and a French-language version of the website and some training materials. With the help of NOAA, Puerto Rico (2014) and the U.S. Virgin Islands (2015) joined the network next. More recently in just the

past two years, the World Meteorological Organization (WMO) in collaboration with NOAA, helped sponsor a CoCoRaHS pilot project in the Bahamas. Both Canada and the Islands of the Bahamas have taken well to CoCoRaHS and trust and use the data extensively. It is the quality and reliability of the volunteer-collected precipitation data from CoCoRaHS that has been our best asset. Thanks to all our thousands of dedicated volunteers for helping achieve this reputation. Also, our consistency in how we measure, the gauges we use, the training we provide, and the documentation of station locations and changes (referred to as “metadata”) all meet high standards. When we started back in 1998 we hoped for useful data but didn’t expect it to match or even exceed the requirements and expectations of existing official Federal networks.

Yet, independent testimonies from many data users such as the National Weather Service, the U.S. Department of Agriculture, research scientists, businesses, State Climatologists, and others consistently found that CoCoRaHS data – rain, hail and snow – were all “research quality – and at least comparable to precipitation data from official sources”.

Already more than 10 years ago, requests to export CoCoRaHS data to merge with official data collection networks began ramping up. First it was

MADIS – the NOAA's Meteorological Assimilation Data Ingest System -- that began to routinely export and use our data. Then in 2010 NOAA's National Center for Environmental Information notified us here at CoCoRaHS headquarters that, on the merit of our data quality and extent, they intended to begin incorporating all daily reports from any volunteer who had submitted at least 100 reports in the Global Historic Climate Network – the primary data set used by scientists, businesses, educators and the public for monitoring local, regional, national and international climate conditions. This meant that CoCoRaHS data are archived and shared, right alongside National Weather Service Cooperative and Airport network data and similar networks from other countries around the world. This put some pressure on us – especially considering we encourage participant by volunteers of

all ages and typically add a few thousand new “rookies” each year. So some are inevitable, and practice makes perfect. In response, we maintain a “Help Desk” to promptly answer phone or email questions from our volunteers. We also keep a meteorology student intern and/or professional meteorologist on staff as our “Data Quality Control Specialists” to make sure that potential errors are identified and rectified promptly.

To wrap up, we never planned to become a national network and certainly not international too – but it happened. It is amazing what a bunch of motivated volunteers can do when given the tools and presented with a challenge. We just wanted to learn more about the variation of precipitation on small local scales – but we're learning so much more.



CoCoRaHS
WxTalk
Webinar Series

Today's Guests: *Greg Byrd & Matt Kelsch*

"The COMET Program: Freely available online lessons in weather and the natural sciences"

The graphic features the CoCoRaHS logo in the top right corner, which includes the text "CoCoRaHS" and "Community Collaborative With 200+ Local Networks". Below the logo are two small portrait photos of Greg Byrd and Matt Kelsch. The background is dark blue with green vertical bars on the left and right sides.

Available at: <http://youtu.be/AEVLjVk12t8>

Thank you for all that you do for CoCoRaHS, whether in the past, present and in the days to come!!
Please send me any questions or comments.

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