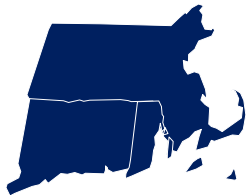


## Community Collaborative Rain, Hail & Snow Network



# Southern



# New England

**November 2018**

We started the new Water Year with an eventful month. Noteworthy with all of the rain, and a little bit of snow in New Hampshire, are hail reports in October. Add on Snow Depth, Condition Monitoring, Significant Weather, and more Comments, it is encouraging to see so many participate in the many dimensions that our network has.

Sounding like a broken record, single month reporting records continue to be broken. October had nearly 9500 Daily reports, breaking our total daily reports record from last month, assisted by another single month reporting record from Massachusetts.

Within this month's Newsletter: We lead off with The Grand List Observers. Our "Observer of the Month" takes us to the coastal plain of Plymouth County.

If you want to participate in this "Observer of the Month" segment, please let us know.

Gauge Catch is explained, Twitter and Email, and for those that can type, Comments and Condition Monitoring Reports.

Let's get into it.

## **The “Grand” List**

Congratulations to all of these observers from our three states who have recently passed a milestone of 1000 Daily Reports.

### **2000 Daily Reports**

CT-HR-15 Southington 3.0 E

### **1000 Daily Reports**

CT-FR-29 Ridgefield 1.3 SSE

## **Observer of the Month – MA-PL-47**

I'm MA-PL-47, Plymouth 1.1 NNW, located several feet from Route 3A in North Plymouth, Mass.

I first learned about CoCoRaHS about 10 years ago, a few weeks after Hurricane Dolly made landfall in Deep South Texas on July 23, 2008.

At the time, I was working at a newspaper there and had regular—and very pleasant—contact with the meteorologists at the National Weather Service in Brownsville, Texas. Weather is always news: too dry/wet, too hot/cold, too windy. And always the weather “records” are newsworthy.

The folks at the NWS-Brownsville are a wealth of information, and they were there, 24/7/365, to give my newspaper terrific information. A shout-out to Geoff Bogorad, the CoCoRaHS coordinator for Cameron County, Texas, and especially to Warning Coordinator Meteorologist Barry Goldsmith, who with his wife Michelle, are personal friends.

Following Dolly, and while writing a story about the Brownsville weather service office, Geoff told me about this network of volunteer observers.

My house at that time didn't have a suitable location to install my own rain gauge, but my friend Sally did, and she signed up to report to CoCoRaHS. She's TX-CMR-96, and she's been reporting ever since.

I'm now retired from newspapers, and I find myself in a good location for a rain gauge. After explaining CoCoRaHS to a neighbor, he surprised me



with my own rain gauge. (He intends to give rain gauges to friends and family, as Christmas presents this year. Wow!)

I installed my rain gauge in July. Checking it is easy and reporting via the CoCoRaHS app is a cinch. I hope someday we can post photos in the “comments” section. For example, there was a rainbow the other evening.



I enjoy checking the daily reports from the early risers who send their data at 5 a.m.—or earlier— comparing my data to the other observers’ reports and reading their comments. This is a small geographic area, but rainfall varies so much within just a few miles.

CoCoRaHS reporting complements my other interests. It’s a logical extension of gardening and backyard birdwatching: if it doesn’t rain, I need to water the garden and fill the birdbath.

The birds give me hints about the weather: they tell me when a storm is approaching. I noticed last winter that the birds crowded the feeders and would “pig-out” before a snowstorm. And then there’s watching for the first crocuses in the spring, for the male goldfinches to become yellow, and—of course—the spring’s first robin.




The birds apparently don’t need the NWS forecast. They seem to instinctively know. But I enjoy making my small contribution to the precipitation database because “every drop DOES count.”



## Gauge Catch

On rainy days, measuring and reporting is straightforward. Measure what fell in the gauge and report that amount in the first field on a reporting form.

Snow falls, or a mix of snow and rain, and there are more elements to measure and report. Where to begin? Begin with what fell in the gauge, called the “Gauge Catch”. If you have no time, no interest, it’s too cold to do anything else, focus on the Gauge Catch.

Gauge Catch is reported in the 1<sup>st</sup> value. Aware of the enthusiasm to measure and report new snow depth the results in reporting new snow depth first. Report the melted contents of your Gauge Catch 1<sup>st</sup>. New snow depth is the 2<sup>nd</sup> reported value. Please avoid making this common mistake during the season of snowfall.

\*Observation Time 

  in. \*Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours, or **T** for trace, or **NA** for unknown. 

Find the liquid content of what fell in the gauge, the outer cylinder. Two ways of doing that.

- a) The simplest approach is by adding a measured quantity of hot tap water, pour the hot tap water into the outer cylinder, pour and measure the contents of the outer cylinder, subtract the measured amount of hot tap water.
- b) Another approach involves weighing the snow. Know the weight of the outer cylinder, weigh the outer cylinder with the precipitation within, subtract the weight of the outer cylinder, and determine the amount of precipitation based upon 201g = 1” of precipitation.

Unless you are certain that the next round of precipitation will be all rain, do remove the funnel and the inner cylinder and keep indoors. When warmer days return, so can the funnel and inner cylinder.

## **Twitter**

Each one of our three states have their own Twitter account.

@MA\_CoCoRaHS

@RI\_CoCoRaHS

@CT\_CoCoRaHS



To inform, to highlight your reporting, to recruit, to be proud of what your volunteer efforts, like or retweet what someone else has posted, is what we intend to use Twitter for. Joe will be submitting tweets for MA & RI and Matt does the same for CT.

Some of you have Twitter accounts of your own and use them to point out unique aspects of your locale, and some eye-opening climatological statistics as well. We respect your privacy and do not intend to point out to others that you are a CoCoRaHS observer too, even as you are showing a picture of your 4" diameter gauge.

Become one of our followers on Twitter, or just browse by the web site. If you want these accounts to follow your Twitter account, let us know by direct message or email.

## **Spam Filters on Email**

More for the newer observers than the observers who have been for years....

.... Check your Spam Filter on your Email box that messages from Joe or Matt or from CoCoRaHS headquarters in Colorado, colostate.edu, are being treated as Spam and not going directly into your InBox with email.

We use email to communicate with you and accompany messages with attachments. By doing so, we want to make sure that our messages are reaching your InBox, not your Spam Filter.

Thanks!

## **Comments (Observation Notes)**

Collectively, more of you seem to find more to type about in the winter months, than in the summer months. So while you have interest in typing, continue to clarify and verify your reported amounts.

Rain changed to snow? And back to rain? Say so in a Comment.

Repeating your reported amounts does help reduce the risk of a reporting error.

## **Condition Monitoring Reports**

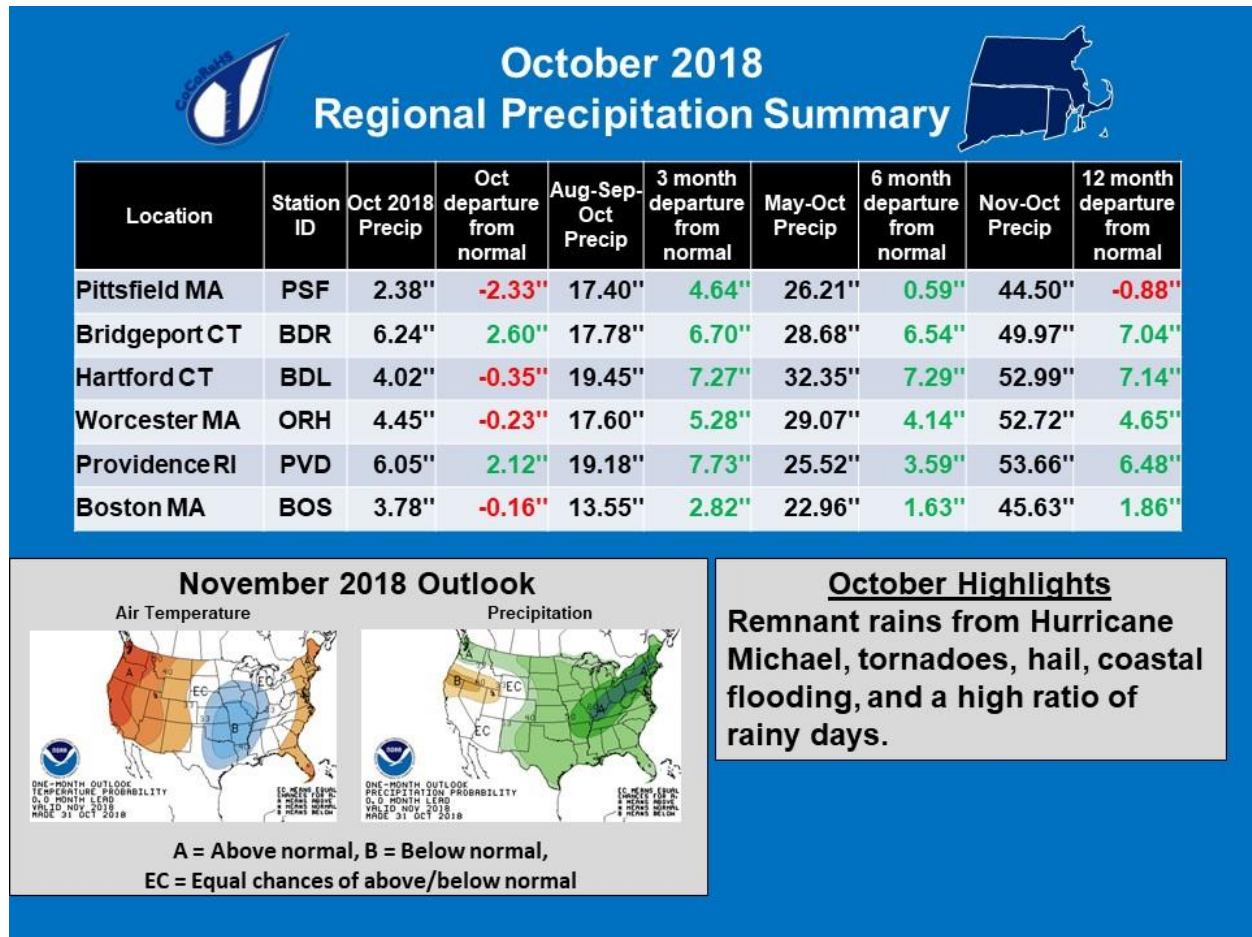
From Nolan's recent message: Continue to make Condition Monitoring Reports during the winter months.

One report a week is all that we seek. It has taken awhile to get used to two aspects of making these Reports.

- 1) The end customer at the US Drought Monitor is not looking for a repeat of precipitation totals. Instead, the focus is on what the precipitation has done to the land, the surrounding area. How has the lack of, or surplus of, precipitation affected the area? What is occurring in your locale?
- 2) Finding a quiet moment on a Sunday to make the report, after being out and about on Saturday.

# Detail and Summary for October 2018

From the National Weather Service (NWS) Climate sites for Oct 2018.



Our two largest reporting days were in the beginning of the month. The rain event for the 3<sup>rd</sup>, and Hurricane Michael blowing by our area for the 12<sup>th</sup>. Hail Reports in the afternoon, along with 2 tornadoes in North Providence RI and Norton MA on the 23<sup>rd</sup>. Our first Nor'easter accompanied by coastal flooding with the remnants of the Pacific storm, Willa, on the 27<sup>th</sup>. All of these previous events noted and appreciated by your Significant Weather Reports.

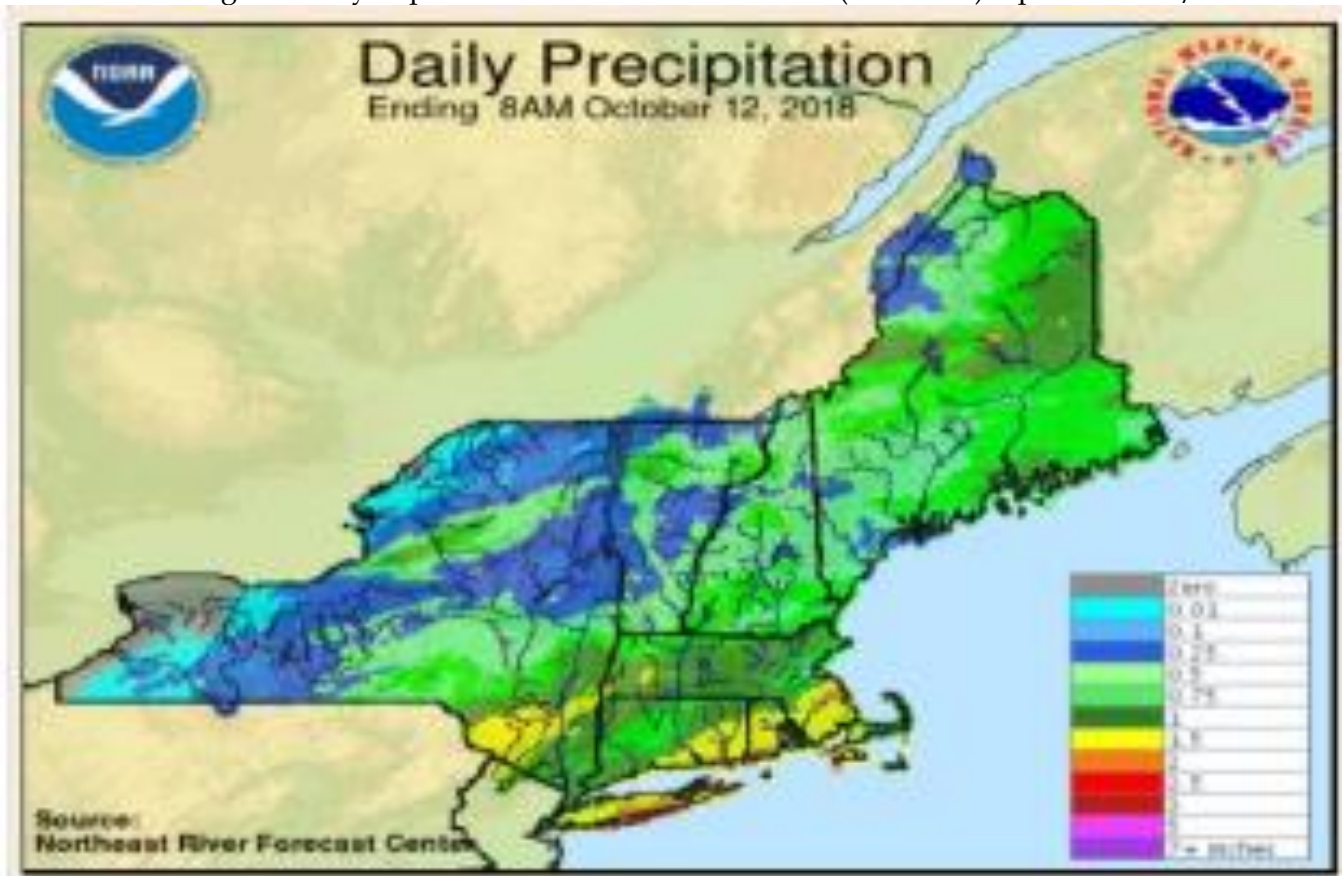
Even a tornado on Fishers Island on the 29<sup>th</sup>. And 0.2" of snow in Rindge NH on the 27<sup>th</sup>, a foreshadowing of the season to come.

Take in the next section with appreciation of your efforts.



## From your reports for October 2018

Observers reporting	384
Reported all 31 days	178
Completed by Multi-Day Reports	61
Missing 1 or 2 reports	52
Daily Reports	9487
Zero Reports	4030
Non-Zero Reports	5457
Daily Comments	1791
Multi-Day Reports	277
Condition Monitoring Reports	37
Significant Weather Reports	21
Hail Reports	5
Snowfall Reports	4562
Snow Depth Reports	2570
Highest Daily Report	4.21" from Nantucket MA (MA-NT-4) reported on 10/12



After the dynamics and wide variability of August and September, October was a little less so. Many stations with more 4" of precip, which keeps the drought away.

Take in another long list over nearly 240 stations.

For a viewing explanation on Watersheds, the CoCoRaHS animated video is on [YouTube](#).

Watershed	Watershed Name	Station Number	Station Name	Precip
01070004	Nashua			
0107000401	North Nashua River	MA-WR-44	Westminster 0.6 WSW	4.74"
0107000401	North Nashua River	MA-WR-8	Fitchburg 1.6 SSW	3.98"
0107000401	North Nashua River	MA-WR-22	Fitchburg 2.0 NNE	5.07"
0107000402	Headwaters Nashua River	MA-WR-64	Sterling 3.7 WNW	4.24"
0107000402	Headwaters Nashua River	MA-WR-56	Sterling 4.3 NW	4.82"
0107000402	Headwaters Nashua River	MA-MD-25	Ayer 0.1 SW	3.49"
0107000403	Squannacook River	MA-MD-47	West Townsend 0.5 W	4.37"
01070005	Concord			
0107000501	Sudbury River	MA-MD-89	Sudbury 3.6 W	4.94"
0107000501	Sudbury River	MA-MD-88	Wayland 2.1 SSE	4.12"
0107000502	Concord River	MA-WR-30	Shrewsbury 1.6 NNE	4.85"
0107000502	Concord River	MA-WR-28	Berlin 1.3 WSW	5.25"
0107000502	Concord River	MA-WR-42	Northborough 2.3 N	4.59"
0107000502	Concord River	MA-MD-115	Hudson 1.4 NW	4.47"
0107000502	Concord River	MA-MD-12	Acton 1.3 SW	4.58"
0107000502	Concord River	MA-MD-51	Maynard 0.7 ESE	4.82"
0107000502	Concord River	MA-MD-62	Chelmsford 1.2 E	4.40"
01070006	Merrimack River			
0107000612	Stony Brook - Merrimack River	MA-MD-104	Littleton 2.8 NNW	3.94"
0107000612	Stony Brook - Merrimack River	MA-MD-105	Littleton 0.9 WSW	4.66"
0107000612	Stony Brook - Merrimack River	MA-MD-93	Westford 1.5 SSW	4.05"
0107000613	Shawsheen River	MA-MD-52	Lexington 0.6 SW	3.87"
0107000613	Shawsheen River	MA-MD-96	Lexington 0.3 NE	4.28"
0107000613	Shawsheen River	MA-ES-48	Andover 0.6 E	4.54"
0107000614	Powwow River - Merrimack River	MA-ES-20	Haverhill 0.7 N	4.48"
0107000614	Powwow River - Merrimack River	MA-ES-4	Groveland 0.5 WSW	4.85"
01080201	Middle Connecticut			
0108020106	Manhan River - Connecticut River	MA-HS-2	Westhampton 1.8 SW	5.90"

0108020106	Manhan River - Connecticut River	MA-HS-8	Williamsburg 1.2 WSW	4.41"
0108020106	Manhan River - Connecticut River	MA-HS-26	Easthampton 0.5 SW	4.85"
0108020106	Manhan River - Connecticut River	MA-HS-12	Northampton 0.4 S	4.84"
0108020106	Manhan River - Connecticut River	MA-HS-21	Northampton 0.6 ESE	4.61"
0108020106	Manhan River - Connecticut River	MA-FR-12	Sunderland 1.3 SE	4.71"
0108020107	Batchelor Brook - Connecticut River	MA-HD-23	Springfield 2.5 WNW	5.67"
01080202	Miller			
0108020201	Upper Millers River	NH-CH-20	Rindge 3.2 ESE	4.12"
0108020202	Lower Millers River	MA-WR-40	Gardner 1.4 SSW	4.75"
01080203	Deerfield			
0108020305	Lower Deerfield River	MA-FR-17	Buckland 1.8 ESE	4.04"
0108020305	Lower Deerfield River	MA-FR-13	Conway 2.9 NW	4.63"
0108020305	Lower Deerfield River	MA-FR-10	Conway 0.9 SW	4.28"
01080204	Chicopee			
0108020402	Ware River	MA-WR-54	Barre 1.4 NNE	4.57"
0108020404	Chicopee River	MA-HD-25	Ludlow 2.3 SW	6.43"
01080205	Lower Connecticut			
0108020501	Mill River-Connecticut River	CT-HR-57	Suffield Depot 3.3 NNE	5.21"
0108020502	Scantic River	CT-TL-26	Broad Brook 2.6 ESE	3.71"
0108020502	Scantic River	MA-HD-20	Wilbraham 3.7 SSW	5.82"
0108020502	Scantic River	CT-TL-15	Central Somers 0.3 N	3.85"
0108020503	Park River	CT-HR-39	Farmington 1.6 SW	5.89"
0108020503	Park River	CT-HR-49	West Hartford 1.1 W	4.44"
0108020503	Park River	CT-HR-58	West Hartford 2.1 NNE	5.28"
0108020503	Park River	CT-HR-11	West Hartford 2.7 SSE	4.79"
0108020503	Park River	CT-HR-53	Hartford 2.0 SW	5.40"
0108020504	Hockanum River	CT-TL-19	Vernon 2.8 N	4.24"
0108020505	Roaring Brook - Connecticut River	CT-HR-6	Wethersfield 1.2 WSW	5.68"
0108020505	Roaring Brook - Connecticut River	CT-HR-45	Wethersfield 1.9 SSW	6.22"
0108020505	Roaring Brook - Connecticut River	CT-HR-22	East Hartford 1.3 E	4.96"
0108020506	Mattabesset River	CT-HR-15	Southington 3.0 E	5.25"
0108020506	Mattabesset River	CT-HR-80	Kensington 0.7 WSW	5.16"
0108020506	Mattabesset River	CT-MD-25	Middlefield 0.6 SE	4.53"
0108020507	Higganum Creek - Connecticut River	CT-MD-2	Portland 0.9 S	4.62"
0108020507	Higganum Creek - Connecticut River	CT-MD-23	Higganum 0.7 N	4.40"
0108020509	Eightmile River - Connecticut River	CT-MD-19	Ivoryton 0.9 WSW	5.02"
01080206	Westfield			
0108020601	Headwaters Westfield River	MA-HS-7	Plainfield 2.2 SW	4.30"
0108020601	Headwaters Westfield River	MA-HS-14	Plainfield 2.4 ESE	4.49"
01080207	Farmington			
0108020701	Still River	CT-LT-15	Colebrook 1.0 NE	5.02"

0108020702	West Branch Farmington River	MA-BE-4	Becket 5.6 SSW	6.02"
0108020702	West Branch Farmington River	CT-LT-18	New Hartford Center 1.5 N	5.43"
0108020704	Headwaters Farmington River	CT-LT-9	New Hartford Center 3.2 SW	4.82"
0108020704	Headwaters Farmington River	CT-HR-70	Canton 1.5 W	5.19"
0108020704	Headwaters Farmington River	CT-HR-71	Bristol 2.7 NNE	5.55"
0108020705	Salmon Brook	CT-HR-60	North Granby 0.7 N	5.37"
0108020705	Salmon Brook	CT-HR-8	North Granby 1.3 ENE	5.65"
01090001	Charles			
0109000101	Plum Island Sound - Frontal Atlantic Ocean	MA-ES-19	West Newbury 1.8 SSE	5.31"
0109000101	Plum Island Sound - Frontal Atlantic Ocean	MA-ES-24	Newburyport 0.8 SW	4.77"
0109000102	Ipswich River	MA-MD-85	Wilmington 2.2 WNW	4.54"
0109000102	Ipswich River	MA-MD-125	Tewksbury 3.6 SSE	4.43"
0109000102	Ipswich River	MA-MD-45	Wilmington 1.5 NE	4.49"
0109000102	Ipswich River	MA-ES-12	Boxford 2.4 S	4.28"
0109000102	Ipswich River	MA-ES-2	Beverly 2.8 NW	3.99"
0109000103	Essex River - Frontal Atlantic Ocean	MA-ES-41	Danvers 0.8 ESE	4.65"
0109000104	Saugus River - Frontal Broad Sound	MA-MD-81	Wakefield 0.5 NNW	4.42"
0109000104	Saugus River - Frontal Broad Sound	MA-ES-45	Nahant 0.4 N	3.87"
0109000104	Saugus River - Frontal Broad Sound	MA-ES-8	Marblehead 0.8 SW	4.21"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-67	Lexington 2.3 SE	3.86"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-7	Winchester 0.7 SE	4.42"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-44	Medford 1.2 W	4.56"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-11	Cambridge 0.9 NNW	4.74"
0109000105	Mystic River - Frontal Boston Harbor	MA-SF-10	Chelsea 0.8 N	4.67"
0109000106	Upper Charles River	MA-WR-1	Milford 2.3 NNW	4.91"
0109000106	Upper Charles River	MA-MD-106	Holliston 2.4 W	5.10"
0109000106	Upper Charles River	MA-MD-42	Holliston 0.8 S	5.26"
0109000106	Upper Charles River	MA-NF-11	Millis 2.0 SW	6.35"
0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-71	Newton 2.2 NNW	3.30"
0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-119	Watertown 1.1 W	4.57"
0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-134	Somerville 0.5 SSE	4.48"
0109000108	Neponset River - Frontal Boston Harbor	MA-NF-1	Norwood 1.3 NW	4.99"
0109000109	Whitmans Pond - Frontal Boston Harbor	MA-NF-36	Weymouth 2.8 NW	5.20"
0109000109	Whitmans Pond - Frontal Boston Harbor	MA-NF-39	Weymouth 2.3 N	5.59"
0109000109	Whitmans Pond - Frontal Boston Harbor	MA-PL-36	Hingham 0.8 ESE	6.83"
01090002	Cape Cod			
0109000201	North River - Frontal Massachusetts Bay	MA-PL-5	Kingston 3.3 WNW	7.39"
0109000201	North River - Frontal Massachusetts Bay	MA-PL-37	Scituate 1.2 NW	7.24"
0109000201	North River - Frontal Massachusetts Bay	MA-PL-47	Plymouth 1.1 NNW	7.42"
0109000202	Cape Cod	MA-BA-2	Falmouth 3.1 NNW	6.82"
0109000202	Cape Cod	MA-BA-57	Falmouth 5.7 N	6.57"

0109000202	Cape Cod	MA-BA-13	Falmouth 0.6 NNW	6.59"
0109000202	Cape Cod	MA-BA-50	Falmouth 5.4 NNE	6.11"
0109000202	Cape Cod	MA-BA-17	East Falmouth 1.2 WNW	5.19"
0109000202	Cape Cod	MA-BA-3	Falmouth 3.0 E	5.79"
0109000202	Cape Cod	MA-BA-11	East Falmouth 1.4 ESE	6.42"
0109000202	Cape Cod	MA-BA-18	Waquoit 0.6 SSW	6.24"
0109000202	Cape Cod	MA-BA-47	Mashpee 2.4 WSW	6.67"
0109000202	Cape Cod	MA-BA-45	Sandwich 0.9 NNE	6.73"
0109000202	Cape Cod	MA-BA-10	East Sandwich 2.3 SE	6.27"
0109000202	Cape Cod	MA-BA-59	Barnstable 3.6 W	6.04"
0109000202	Cape Cod	MA-BA-72	Yarmouth 2.0 S	5.01"
0109000202	Cape Cod	MA-BA-1	Yarmouth 2.3 SSE	5.71"
0109000202	Cape Cod	MA-BA-33	Brewster 1.5 ESE	6.09"
0109000202	Cape Cod	MA-BA-52	Truro 0.8 E	4.91"
0109000202	Cape Cod	MA-BA-37	Orleans 0.8 W	5.31"
0109000202	Cape Cod	MA-BA-51	Orleans 3.0 S	5.92"
0109000202	Cape Cod	MA-BA-12	Orleans 1.1 E	5.20"
0109000202	Cape Cod	MA-BA-30	Eastham 0.6 SW	4.99"
0109000202	Cape Cod	MA-BA-65	Chatham 0.2 SSE	4.41"
0109000203	Mattapoisett River - Frontal Buzzards Bay	MA-PL-19	Rochester 1.2 NNW	6.90"
0109000204	Paskamanset River - Frontal Buzzards Bay	MA-BR-14	Dartmouth 2.5 SSW	5.62"
0109000204	Paskamanset River - Frontal Buzzards Bay	MA-BR-52	New Bedford 4.3 N	5.38"
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-5	Little Compton 1.7 NW	6.03"
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-7	Little Compton 0.6 E	6.72"
0109000205	Sakonnet Point - Frontal Rhode Island Sound	MA-BR-37	Westport 0.9 ESE	6.35"
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-5	West Tisbury 2.9 N	7.79"
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-9	West Tisbury 0.4 S	7.79"
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-2	Vineyard Haven 0.8 WSW	7.22"
01090003	Blackstone			
0109000301	Upper Blackstone River	MA-WR-41	Auburn 2.6 SW	4.96"
0109000301	Upper Blackstone River	MA-WR-43	Leicester 2.4 ESE	4.40"
0109000301	Upper Blackstone River	MA-WR-70	Grafton 1.5 W	4.70"
0109000302	Lower Blackstone River	RI-PR-50	Harrisville 1.2 SSE	6.40"
0109000302	Lower Blackstone River	RI-PR-28	North Smithfield 0.7 SE	6.82"
0109000302	Lower Blackstone River	RI-PR-45	Manville 0.4 WSW	6.52"
0109000302	Lower Blackstone River	MA-NF-26	Bellingham 2.4 S	6.21"
0109000302	Lower Blackstone River	RI-PR-55	Cumberland Hill 3.6 NNE	5.02"
01090004	Narragansett			
0109000401	Upper Taunton River	MA-BR-30	Taunton 3.9 N	7.09"
0109000401	Upper Taunton River	MA-NF-31	Stoughton 1.2 E	6.51"
0109000401	Upper Taunton River	MA-PL-15	Abington 1.2 NNE	5.11"

0109000401	Upper Taunton River	MA-PL-23	Pembroke 2.8 SW	6.98"
0109000402	Middle Taunton River	MA-BR-48	Taunton 1.0 E	6.59"
0109000402	Middle Taunton River	MA-PL-31	Bridgewater 1.8 SE	7.02"
0109000403	Threemile River	MA-NF-19	Foxborough 1.8 SSW	6.71"
0109000403	Threemile River	MA-NF-8	Foxborough 0.4 S	7.12"
0109000403	Threemile River	MA-BR-55	NWS Boston/Norton 2.5 ESE	6.73"
0109000403	Threemile River	MA-BR-9	Taunton 2.6 NW	6.71"
0109000404	Ten Mile River	MA-BR-23	Attleboro 0.9 ENE	6.44"
0109000405	Wonnasquatucket River-Moshassuck River	RI-PR-33	Greenville 0.7 NNW	7.46"
0109000405	Woonasquatucket River-Moshassuck River	RI-PR-60	North Providence 0.9 E	6.35"
0109000406	Pawtuxet River	RI-PR-57	Cranston 1.2 SSE	6.97"
0109000406	Pawtuxet River	RI-PR-17	Cranston 4.1 E	7.16"
0109000407	Palmer River	MA-BR-2	Rehoboth 2.1 N	6.45"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-3	Norton 1.8 NNE	7.17"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-16	Somerset 0.4 SSE	5.65"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-19	Somerset 2.0 NNE	6.05"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-8	Dighton 1.1 WSW	6.00"
0109000409	Narragansett Bay	RI-KN-17	East Greenwich 1.2 NNE	6.89"
0109000409	Narragansett Bay	RI-WS-31	Kingston 7.5 NNE	7.12"
0109000409	Narragansett Bay	RI-WS-44	North Kingston 1.5 SSW	5.01"
0109000409	Narragansett Bay	RI-KN-15	Warwick 4.3 SSW	5.93"
0109000409	Narragansett Bay	RI-KN-2	East Greenwich 2.3 ESE	6.73"
0109000409	Narragansett Bay	RI-NW-18	Jamestown 0.3 SSE	6.38"
0109000409	Narragansett Bay	RI-BR-5	Barrington 1.3 WNW	6.04"
0109000409	Narragansett Bay	RI-NW-4	Middletown 1.1 SW	4.46"
0109000409	Narragansett Bay	RI-NW-19	Portsmouth 2.3 S	6.04"
0109000409	Narragansett Bay	RI-NW-16	Portsmouth 1.3 S	5.69"
0109000409	Narragansett Bay	RI-NW-11	Tiverton 0.8 SSW	6.41"
0109000409	Narragansett Bay	RI-NW-20	Tiverton 1.0 SSW	5.94"
01090005	Pawcatuck-Wood			
0109000501	Wood River	RI-WS-1	Hope Valley 3.7 S	6.95"
0109000502	Upper Pawcatuck River	RI-WS-42	Richmond 4.6 NNE	5.96"
0109000502	Upper Pawcatuck River	RI-WS-32	Kingston 6.9 NNW	6.23"
0109000502	Upper Pawcatuck River	RI-WS-37	Kingston 2.4 SW	7.12"
0109000503	Lower Pawcatuck River	CT-NL-40	Pawcatuck 1.8 SSE	6.89"
0109000503	Lower Pawcatuck River	RI-WS-47	Westerly 0.8 WNW	6.37"
0109000504	Frontal Block Island Sound	RI-WS-36	Charlestown 3.0 WSW	7.03"
01100001	Quinebaug			
0110000102	French River	MA-WR-68	Oxford 0.9 SSW	4.29"
0110000103	Fivemile River	CT-WN-6	Dayville 2.0 ENE	4.96"
0110000103	Fivemile River	CT-WN-4	East Killingly 1.3 SW	4.67"

0110000105	Mossup River	CT-WN-8	Moosup 1.7 NE	6.56"
0110000106	Pachaug River	CT-NL-21	Griswold 0.9 N	5.37"
01100002	Shetucket			
0110000201	Willimantic River	CT-TL-18	Hebron 5.3 NW	5.69"
0110000201	Willimantic River	CT-TL-28	South Coventry 1.2 NNW	4.76"
0110000201	Willimantic River	CT-TL-2	Staffordville 0.4 NNW	4.03"
0110000202	Natchaug River	CT-TL-27	Willington 2.7 SE	3.97"
0110000202	Natchaug River	CT-WN-12	Eastford 2.0 W	4.42"
0110000203	Shetucket River	CT-NL-10	Norwich 2.5 NNE	6.42"
0110000203	Shetucket River	CT-NL-28	Lisbon 2.0 SW	5.16"
01100003	Thames			
0110000302	Thames River-Frontal New London Harbor	CT-NL-5	Oakdale 2.6 WNW	6.67"
0110000302	Thames River-Frontal New London Harbor	CT-NL-6	New London 1.0 NNW	5.75"
0110000302	Thames River-Frontal New London Harbor	CT-NL-8	Uncasville-Oxoboxo Valley 1.6 ENE	5.91"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-38	Old Lyme 3.4 ESE	5.03"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-32	Niantic 1.1 SW	5.28"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-22	Central Waterford 2.7 SSW	5.22"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-37	Mystic 1.6 W	5.89"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-19	Mystic 0.9 W	5.56"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-24	Stonington 1.4 NNW	5.72"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-18	Stonington 0.5 NNE	6.02"
01100004	Quinnipiac			
0110000401	Quinnipiac River	CT-NH-14	Prospect 1.9 ENE	3.96"
0110000401	Quinnipiac River	CT-HR-55	Southington 1.7 WNW	4.89"
0110000401	Quinnipiac River	CT-HR-23	Southington 0.9 SSE	5.27"
0110000401	Quinnipiac River	CT-NH-44	Wallingford Center 1.9 WNW	4.71"
0110000401	Quinnipiac River	CT-NH-43	Wallingford Center 3.3 NNW	4.18"
0110000401	Quinnipiac River	CT-NH-42	Wallingford Center 1.1 N	4.59"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-21	East Haven 3.5 SSW	4.94"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-41	Madison Center 1.6 W	5.60"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-50	Madison Center 4.1 N	4.78"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-21	Killingworth 2.6 ESE	5.26"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-11	Westbrook Center 1.5 NE	5.73"
0110000403	Mill River - Frontal Long Island Sound	CT-NH-16	Milford 1.8 E	5.84"
0110000403	Mill River - Frontal Long Island Sound	CT-NH-39	West Haven 0.8 W	5.64"
01100005	Housatonic			
0110000501	Headwaters Housatonic River	MA-BE-3	Stockbridge .2 NNE	5.08"
0110000501	Headwaters Housatonic River	MA-BE-10	Pittsfield 2.0 NNW	3.96"
0110000504	Macedonia Brook - Housatonic River	CT-LT-20	Warren 2.4 WNW	4.73"
0110000506	Candlewood Lake-Housatonic River	CT-LT-27	New Milford 2.3 W	3.42"
0110000506	Candlewood Lake-Housatonic River	CT-LT-22	New Milford 5.3 SSW	3.46"

0110000508	Still River - Housatonic River	CT-FR-43	Bethel 0.5 E	4.62"
0110000508	Still River - Housatonic River	CT-FR-41	Bethel 3.5 NNE	4.41"
0110000508	Still River - Housatonic River	CT-FR-9	Brookfield 3.3 SSE	3.87"
0110000510	Eightmile Brook - Housatonic River	CT-FR-44	Newtown 4.3 E	4.45"
0110000511	Headwaters Naugatuck River	CT-LT-7	Litchfield 2.3 NNE	4.26"
0110000512	Outlet Naugatuck River	CT-NH-47	Seymour 1.5 NE	4.84"
0110000512	Outlet Naugatuck River	CT-NH-45	Naugatuck 1.7 NNE	3.57"
0110000512	Outlet Naugatuck River	CT-NH-22	Prospect 0.5 SW	3.99"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-42	Monroe 0.1 SE	5.12"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-23	Shelton 1.3 W	4.53"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-46	Stratford 0.2 ESE	6.45"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-55	Shelton 2.7 SSE	4.65"
01100006	Saugatuck			
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-58	Ridgefield 3.6 N	4.43"
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-31	Newtown 4.6 SSW	5.04"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-59	New Canaan 3.8 N	6.26"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-29	Ridgefield 1.9 SSE	5.72"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-3	New Canaan 1.9 ENE	6.02"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-25	Norwalk 2.9 NNW	6.29"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-20	Westport 2.5 ENE	7.11"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-60	Fairfield 1.5 NE	6.96"
0110000604	Mianus River-Rippowam River	CT-FR-39	Stamford 4.2 S	4.75"
0110000604	Mianus River-Rippowam River	CT-FR-50	Darien 2.8 NW	6.70"
0110000604	Mianus River-Rippowam River	CT-FR-35	Darien 1.8 ENE	5.82"
02020003	Hudson-Hoosic			
0202000306	Upper Hoosic River	MA-BE-18	North Adams 3.0 WNW	3.23"
02030203	Long Island Sound			
0203020300	Long Island Sound	NY-SF-114	Fishers Island 0.5 NE	5.57"

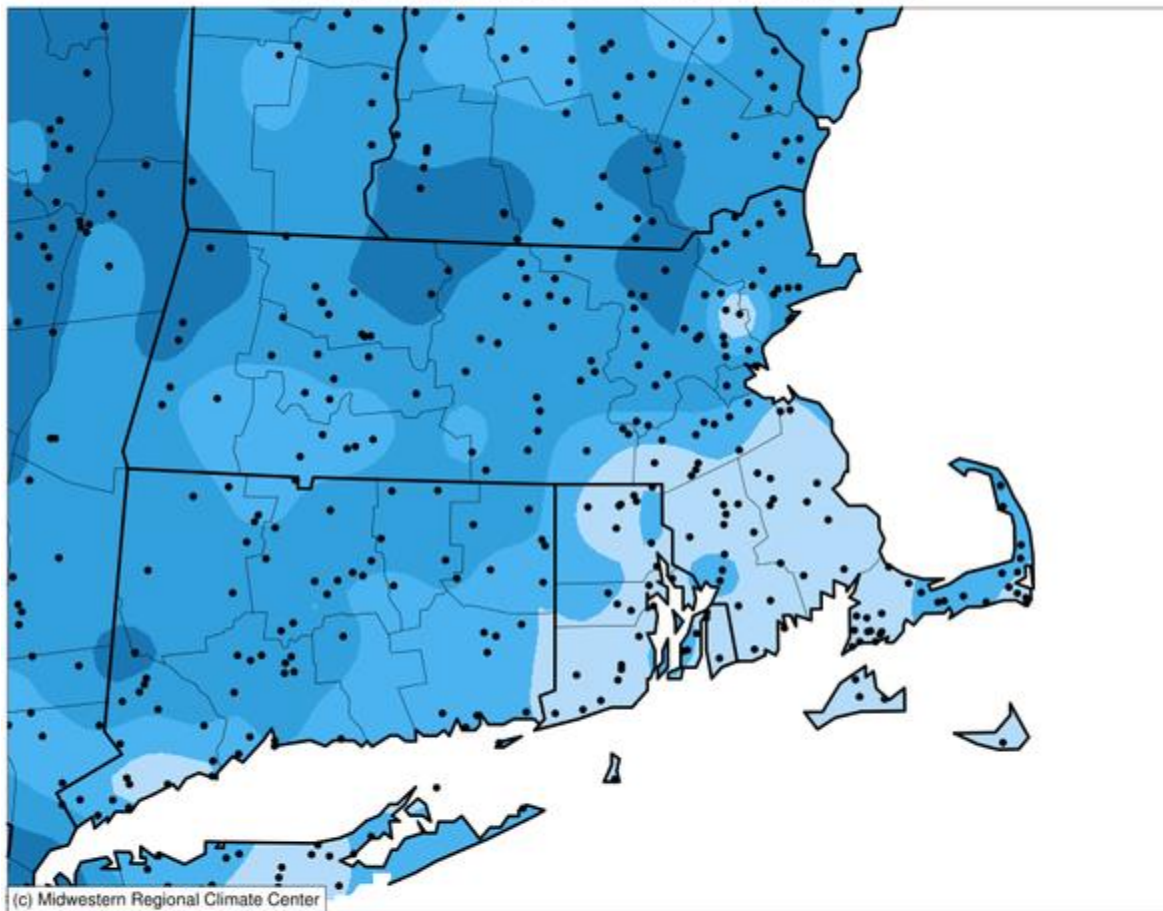


No green colors this month. The darker shade of blue is 3"+, and not many of those areas. The palest shade of blue is 6"+.

A rule of thumb to use for normal precipitation: 4" in any given month. Slightly higher than 4" in the summer months, slightly lower than 4" in the winter months.

### Accumulated Precipitation (in)

October 01, 2018 to October 31, 2018



(c) Midwestern Regional Climate Center



0.01 0.1 0.25 0.5 1 1.5 2 2.5 3 4 5 6 8

Stations from the following networks used: COOP, FAA, CoCoRaHS,

Midwestern Regional Climate Center

cli-MATE: MRCC Application Tools Environment

Generated at: 11/7/2018 8:58:39 PM CST

**“We do not live at the airport”**

The New London County observers continue to impress, and stand out in stark contrast to the automated gauge at their local airport.

Our network does not use automated gauges. And we do not live at the airport!

Location	Station ID	October 2018 Precip	Oct departure from normal	Aug-Sep-Oct Precip	3 month departure from normal	May-Oct Precip	6 month departure from normal	Nov-Oct Precip	12 month departure from normal
White Plains NY	HPN	4.50"	0.09"	21.54"	8.25"	32.60"	7.23"	49.79"	0.44"
Danbury CT	DXR	3.80"	-0.91"	14.46"	0.91"	28.75"	1.70"	45.59"	-4.28"
New Haven CT	HVN	4.06"	-0.18"	15.89"	3.33"	25.23"	0.47"	43.66"	-3.45"
Meriden CT	MMK	4.10"	-0.14"	18.15"	5.59"	27.51"	2.75"	49.02"	1.91"
Hartford CT	HFD	4.61"	0.47"	16.36"	5.08"	28.65"	5.49"	47.48"	3.88"
Willimantic CT	IJD	4.34"	-0.11"	18.67"	6.24"	26.10"	1.54"	46.60"	-1.82"
<b>New London CT</b>	<b>GON</b>	<b>0.00"</b>	<b>-3.86"</b>	<b>8.13"</b>	<b>-3.89"</b>	<b>17.71"</b>	<b>-6.04"</b>	<b>29.61"</b>	<b>-16.88"</b>
Westerly RI	WST	6.41"	2.49"	15.60"	3.61"	21.90"	-1.35"	44.65"	-2.74"
Newport RI	UUU	5.95"	2.12"	16.58"	5.12"	21.09"	-1.16"	47.20"	0.87"
New Bedford MA	EWB	5.90"	1.77"	15.00"	3.20"	20.06"	-2.70"	49.69"	1.33"
Hyannis MA	HYA	5.07"	0.96"	11.07"	-0.54"	16.98"	-4.92"	41.55"	-6.14"
Nantucket MA	ACK	6.70"	2.78"	9.51"	-2.36"	15.94"	-5.93"	44.97"	0.55"
Marthas Vineyard MA	MVY	6.48"	2.41"	10.91"	-1.34"	17.55"	-4.24"	38.11"	-7.05"
Taunton MA	TAN	6.35"	2.06"	18.20"	5.51"	25.05"	1.39"	53.50"	3.76"
Plymouth MA	PYM	6.35"	2.27"	18.04"	6.25"	24.96"	2.04"	53.91"	4.76"
Norwood MA	OWD	4.55"	0.39"	19.90"	8.14"	26.87"	3.70"	51.12"	4.06"
Bedford MA	BED	3.60"	-0.62"	12.54"	1.11"	21.91"	-1.01"	39.79"	-5.92"
Beverly MA	BVY	4.90"	0.52"	15.58"	3.87"	24.21"	1.20"	42.84"	-3.34"
Lawrence MA	LWM	3.16"	-1.01"	13.44"	2.34"	21.53"	-1.07"	35.13"	-8.03"
Fitchburg MA	FIT	4.12"	-0.16"	22.32"	10.39"	32.31"	7.99"	50.20"	3.06"
Orange MA	ORE	3.64"	-0.15"	21.76"	10.87"	33.00"	9.71"		
Westfield MA	BAF	5.88"	1.13"	19.22"	5.82"	33.55"	7.27"	51.29"	2.90"
North Adams MA	AQW	2.77"	-1.97"	16.13"	3.09"	25.91"	-0.75"	39.89"	-6.72"

October 2018 as a calendar. A count of your Daily Reports by Date. Magenta colors are for the highest counts. Lime green color for the lowest counts.

Our average was 306 Daily Reports per day. 343 Reports on October 3 and October 12 ties a single day record from September 26 of this year.

October 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 307	2 338	3 343	4 314	5 303	6 281
7 279	8 292	9 299	10 313	11 314	12 343	13 303
14 301	15 296	16 320	17 304	18 306	19 298	20 293
21 299	22 290	23 297	24 317	25 308	26 299	27 308
28 310	29 305	30 306	31 301			

From the Drought Monitor.

D0 is removed from the Cape and the Islands. Please continue to make Condition Monitoring Reports. One report a week is all that we seek.

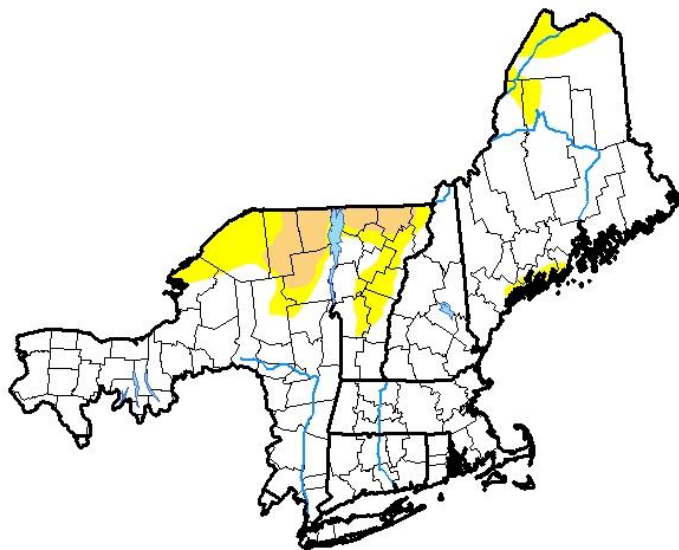
Every drop counts and zeros do too!

## U.S. Drought Monitor Northeast RFC

**November 6, 2018**

(Released Thursday, Nov. 8, 2018)

Valid 7 a.m. EST



*Drought Conditions (Percent Area)*

	None	D0	D1	D2	D3	D4
<b>Current</b>	84.16	11.50	4.34	0.00	0.00	0.00
<b>Last Week</b> <small>10-30-2018</small>	77.49	17.80	4.50	0.22	0.00	0.00
<b>3 Months Ago</b> <small>08-07-2018</small>	52.80	30.79	16.41	0.00	0.00	0.00
<b>Start of Calendar Year</b> <small>01-02-2018</small>	88.74	11.26	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <small>09-25-2018</small>	58.29	31.22	8.70	1.78	0.00	0.00
<b>One Year Ago</b> <small>11-07-2017</small>	89.11	10.89	0.00	0.00	0.00	0.00

*Intensity:*

- 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. See accompanying text summary for forecast statements.

*Author:*

David Simeral  
Western Regional Climate Center



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

For a viewing explanation on the Drought Monitor, the CoCoRaHS animated video is on [YouTube](#).

## **Wrap up**

Thanksgiving is a unique holiday, a day in which we pause to give thanks.

Thank you for your volunteer participation in our citizen science network. We celebrated 20 years as a network. Rhode Island marked its 10<sup>th</sup> year in our network, and Massachusetts and Connecticut will mark their 10<sup>th</sup> year next year.

Growth is encouraging to see. Not only in observers and reports, but those that report for every day, zeros and non-zeros alike. This network was founded after a Significant Weather event, and it is encouraging and heartwarming to see after the numerous significant events we've had these past 12 months, that you remember that we do more than just measure and report once a day, that we can and often do, call attention to what is occurring here and now.

It seems simple. One small measurement to make. And time and time again we see that it all has one giant impact upon the millions that depend upon water.

When it's dark, cold and blowing sideways, it's not so simple. And those efforts are appreciated as well. You are the Rulers of the Snow.

Thank you for making our part of the network the success that it is.

The staff at Headquarters would like to express their thanks, at this time of the year, to the observers who reported from October 2017 to September 2018. Login in to your account on the website and access [My Account](#) . Towards the upper right, within your 2018 Water Year, click on the link for Certificate. That action will download a pdf file containing your Certificate of Appreciation, where you can view or print it. Please pass on your feedback about this Certificate to the team at Headquarters at [info@cocorahs.org](mailto:info@cocorahs.org)

Every one of our monthly newsletters concludes with a word of thanks and this season of Thanksgiving will conclude in the same way. Thank you for all that you do for CoCoRaHS, whether in the past, present and in the days to come.