Community Collaborative Rain, Hail & Snow Network

Southern New England

May 2017

The fragrant lilacs are coming in bloom right on schedule, along with welcome rains and your reporting.

The rains finally came to April along with one last snow event. A wide swing in precipitation numbers range from the hills in the Berkshires to the south and eastern parts of our region.

The reporting records returned in April as well. Our growth has resumed from its winter's rest.

Before we get into the details, plenty to look at and take in. A sample Hail Report is given to see how it looks as a CoCoRaHS report and how it looks to the end customer, the NWS. Numerous observer tips are given for the new observers and as a reminder to the more seasoned observers. All about our precipitation reports and station totals for April. The Map of the Month is about Nantucket. If you haven't been to the faraway place, after you read the feature, you will want to go. One final wrap up on our snow totals for the season. This month, we salute the only state in the network among all of the states that continues to have year over year growth, the Commonwealth of Massachusetts.

On we grow.

More on Hail Reports

Hail Reports serve two valuable purposes. The first is short term. Within a minute of submitting, an alarm comes on the forecasters' screen at your local National Weather Service Forecast Office. The second is long term. Our hail database is one of kind. Inquiries can be done by dates and states and hail size and number of occurrences.

You learn something new every day. The NWS reports a "T" for snow whenever they report hail. You can do so as well.

A hail report from April, from Southern CT, appears at the BOX office. Your Significant Weather Reports and Hail Reports are delivered in a minute to a local NWS Forecast Office.

Hail Report

Hail Report Information

Station Number:	CT-NH-29
Station Name:	Hamden 3.0 WSW
Date:	4/6/2017 5:47 PM
Submitted	4/07/2017 6:51 AM
Taken at registered location:	True
Notes:	

NO HAIL PAD IMAGE

Hailstone Information

Largest Size:	3/8"
Average Size:	1/4" Pea Size
Smallest Size:	Rice
Stone Consistency:	Mixed, White Ice

Hail Storm Information

Duration Minutes:	3
Duration Accuracy:	1min
Timing:	Intermittent
More Rain than Hail:	True
Hail Started:	Same time as rain
Largest Hail Started:	Same time as smaller hail
Damage:	no damage

Hail pad information

Angle of Impact:	
Number of Stones On Pad:	
Distance Between Stones On Pad:	
Depth Of Stones on Ground:	
Has Samples:	False

Text 1: DENCCRAHS

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NZUS45 KBOU 071052
CCRAHS

detailed hail report from CoCoRAHS spotter:

04/06/2017 05:47 PM local time
County: New Haven CT
Hamden 3.0 WSW (number CT-NH-29)
Latitude:
Longitude:
Largest hail: 0.375      average: 0.250
Damage: no damage
Duration: 3          depth:
Comments:

Received NWS Boulder Fri Apr  7 04:52:43 2017 MDT
Sent to WFOs: OKX,ALY,BOX

All of today's CoCoRAHS observations are in WRKCCR (Boulder and Pueblo only)
Or at http://www.cocorahs.org (click on reports)
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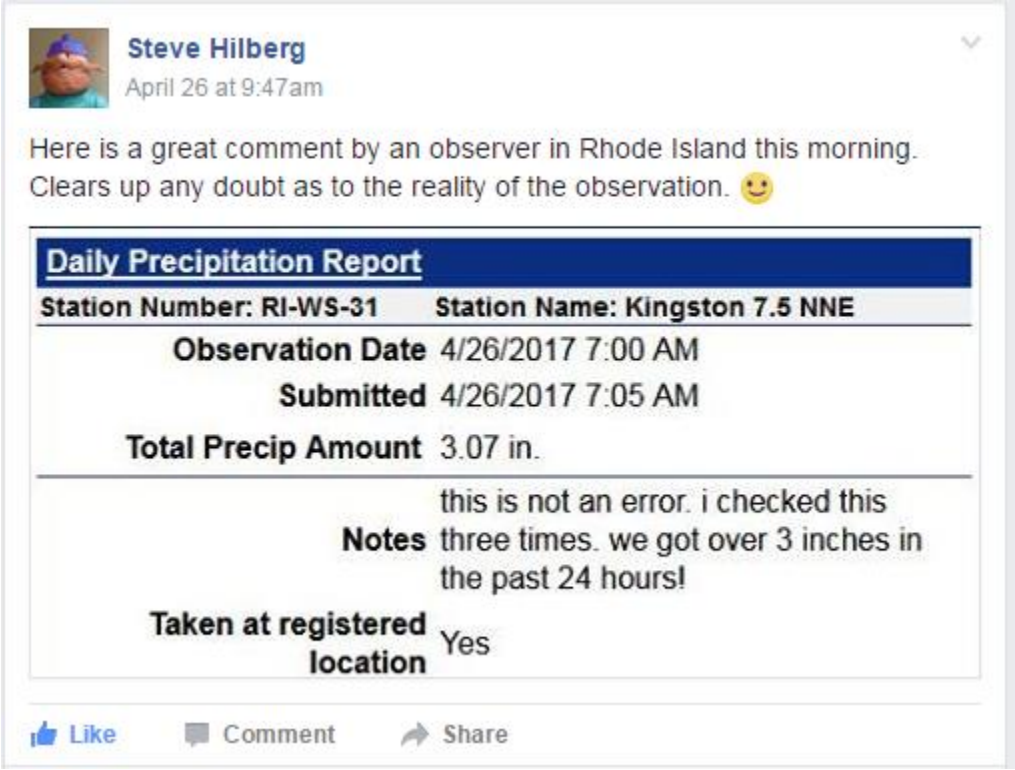
Observer Tips

We are pleased to have so many new observers starting to report. The surge in reporting that has occurred since mid-April is encouraging to see. Rather than spend the next few months mentioning tips explained one topic at a time, we just wanted to briefly mention the following tips. Network wide, we've seen some trends that have caught our attention. Locally, we've seen a few items also. If you have questions about any of these tips, please ask and we will provide more details.

- ✓ Comments that clarify and verify your report of precipitation are helpful. Your report may be unique in some way on some day. We had over 4000 reports of precipitation last month, so we would like to see over 4000 Comments to go along with them. Here is a YouTube video about Comments. Comments find their way into your Water Year Summary. Use Comments to narrate your weather and precipitation experiences through the year. RI-WS-31 caught the eye of the State Coordinator of Illinois, our network's King of Quality.



- ✓ Accuracy matters. Decimal points matter. Please do not mix up 0.40” with 0.04” inches reporting these light spring rains.

- ✓ Significant Weather Reports and Hail Reports are real time reports and alarm your local NWS forecasters’ AWIPS terminals. Be safe. Be timely. Be accurate. A video from our Founder, Nolan Doesken.

- ✓ If you are using the mobile app for reporting, please be careful and check your reported values BEFORE entering. The mobile app is easy for reporting zeros. Reporting a non-zero amount? Not as easy. That may involve backspacing the default value of zero BEFORE entering the amount, otherwise the reported value occurs ahead of the decimal point and wow, that error stands out. Throughout the network, it is easy and commonplace to see reporting errors from mobile devices. There is a “History” function on the mobile app. Check it for reporting mistakes and for missing reports.

- ✓ Look at your reports every month. Please fill in missing reports.

- ✓ Taking time off? Skipped a day or more? Please fill out a Multi-Day Accumulation report when you return. Submitting a Daily Report with your precip amount from the days away, is an error that sticks out like a sore thumb within our reports and maps.

- ✓ Be a hero. Report your zeros. Zeros are a verification to many that no precipitation occurred where you are.

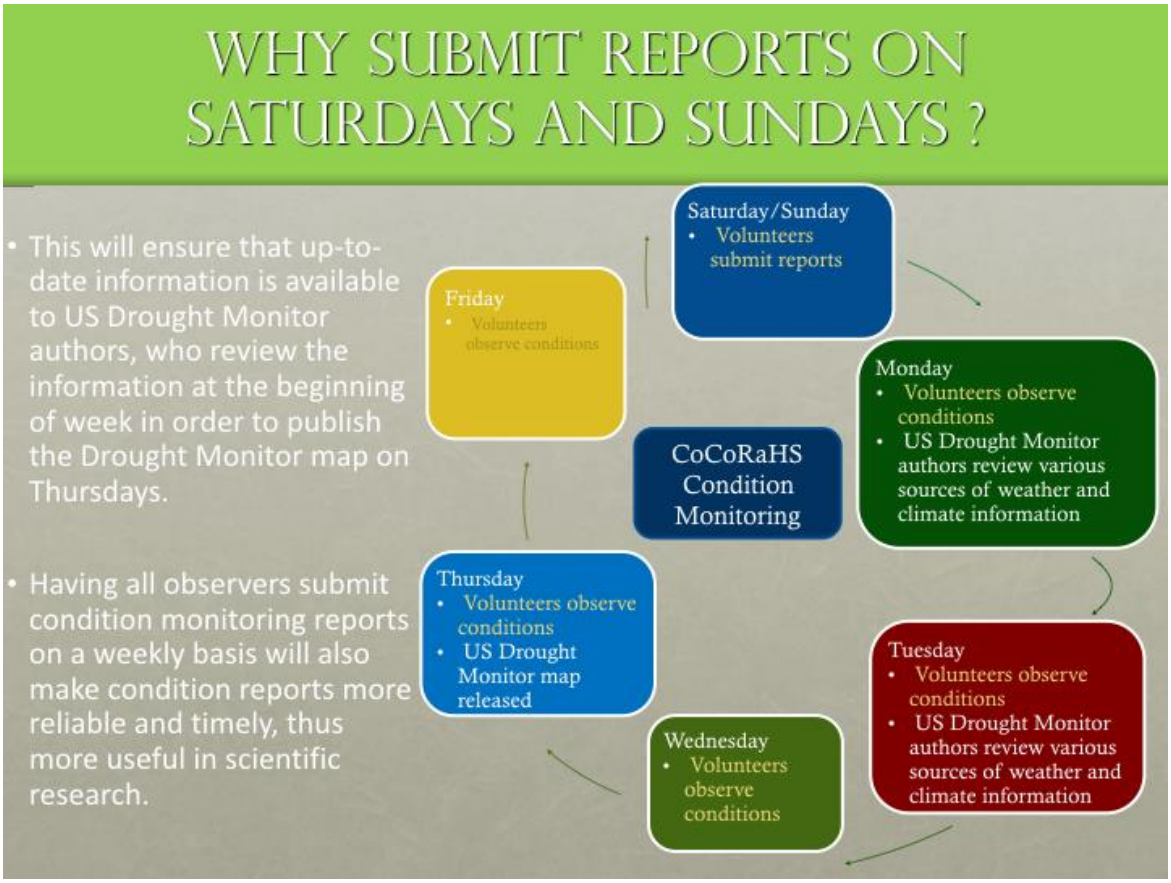
- ✓ Did you see a few drops of rain fall? Barely got the pavement wet? Report a T for trace for those times that rain drops fall, but do not measure up to 0.01”. Being outdoors helps discover traces.

- ✓ If you are new to the crew, know what to do about dew. Please do not mix up precipitation with condensation from dew. Another error that stands out are reports of T and 0.01” with not a cloud in the sky, day and night. If you are not sure what you found within the inner cylinder came from the sky or came from the dew, please make a Comment with your findings.

- ✓ There are no zeros like snow zeros. Continue reporting snow fall, snow depth and total SWE of zero throughout the warm weather months.

- ✓ Condition Monitoring Reports are new to our network and go to a customer *not* called the National Weather Service. I want to show all of you where these reports end up in an upcoming newsletter article. In the meantime, if you have precip totals to share from the past 7 days, 30 days, 90 days, or longer, or if you see your area stream flows, reservoir or lake levels, ground soaked muddy wet, dusty brown and caked dry, or anything in between, fill out and submit a Condition Monitoring Report over the weekend, once or more a month. Put the ground into your ground truth reporting!

  How the Condition Monitoring Reports fit into a weekly cycle is explained below.



Detail and Summary for April 2017

From the National Weather Service (NWS) Climate sites for April 2017.

Location	Station ID	Apr 2017 Precip	Apr departure from normal	Feb-Mar-Apr Precip	3 month departure from normal	Nov-Apr Precip	6 month departure from normal
Pittsfield MA	PSF	3.29''	-0.57''	9.26''	-0.65''	17.85''	-1.91''
Bridgeport CT	BDR	4.82''	0.69''	11.07''	0.10''	22.01''	1.22''
Hartford CT	BDL	3.77''	0.05''	10.19''	-0.04''	19.47''	-1.32''
Worcester MA	ORH	4.75''	0.64''	11.20''	-0.36''	22.80''	-0.35''
Providence RI	PVD	7.10''	2.74''	13.17''	0.51''	24.73''	-0.52''
Boston MA	BOS	5.73''	1.99''	13.13''	1.82''	23.33''	0.89''

Looking at the spread of precip amounts above reminds us that “Rain does not fall the same on all.” April was our first rainy month in over a year, nearly two years. Three rain events came through during the first week of the month, yielding over 3” of rain in many places. Clear skies held on for the 2nd week of the month. Lighter spring rains for the 3rd week of the month, and the month ended warm and dry.

There was one last snow event. Thanks to those that answered the call and submitted 65 reports for one last SWE Monday on April 3.

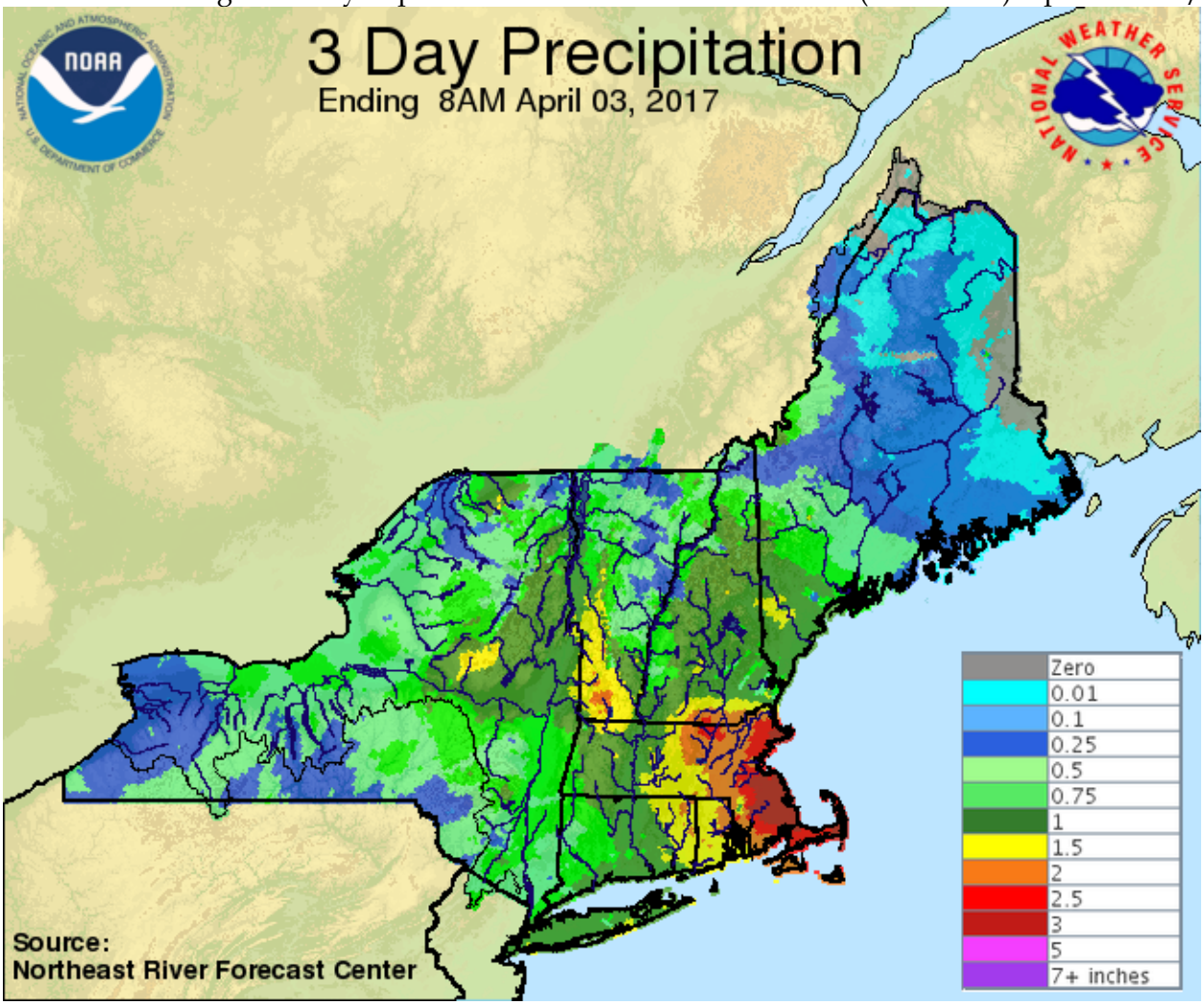
Last April, we broke through 5000 Daily Reports. This April, we broke through 7000 Daily Reports, breaking a one month reporting record, and making a 37% increase in reporting year-over-year. On we grow.

Making it more impressive was that this reporting record was done on a 30 day month. For the first half of April, there were 3242 Daily Reports. For the second half of April, there were 3809 Daily Reports. Over 550 more reports in the second half of the month, over 3800 Daily Reports in half of a month. May is off to a good start and we have hopes that this continues and climbs, yielding even more reporting records broken in May and beyond, like we did last year. We set our sights on breaking 8000 Daily reports and beyond as our growth resumes from its winter’s rest.

Take in this next section of your reports with appreciation of your efforts.

From your reports for April 2017

Observers reporting	311
Reported all 30 days	127
Completed by Multi-Day Reports	30
Missing 1 or 2 reports	37
Daily Reports	7051
Zero Reports	2971
Non-Zero Reports	4080
Daily Comments	1429
Multi-Day Reports	154
Condition Monitoring Reports	23
Significant Weather Reports	23
Hail Reports	5
Snowfall Reports	3473
Snow Depth Reports	1844
Highest Daily Report	3.25″ from East Falmouth MA (MA-BA-46) reported on 4/2



For the benefit of the new observers: Every month, on the night before the newsletter comes out, your monthly reports are looked at to see if there are any missing reports and no Multi-Day Reports that overlap the beginning or the end of the month. If your station totals are complete for the month, it appears in this list, sorted by Watershed.

For the benefit of the more seasoned observers: Please look over your monthly reports, and fill in your missing reports. The website has a history of your past 7 days reporting, appearing after you submit a Daily Report. The mobile app has a "History" function also. There is the "Monthly Zeros" function. So many of you are close to having your totals appear in this long list with all of the others. For several reasons, time does not permit on the night before the newsletter to let a missing report or more, just slide by.

It is worth the effort to sort this by Watershed, because it does look amazing to see the similarities and the differences.

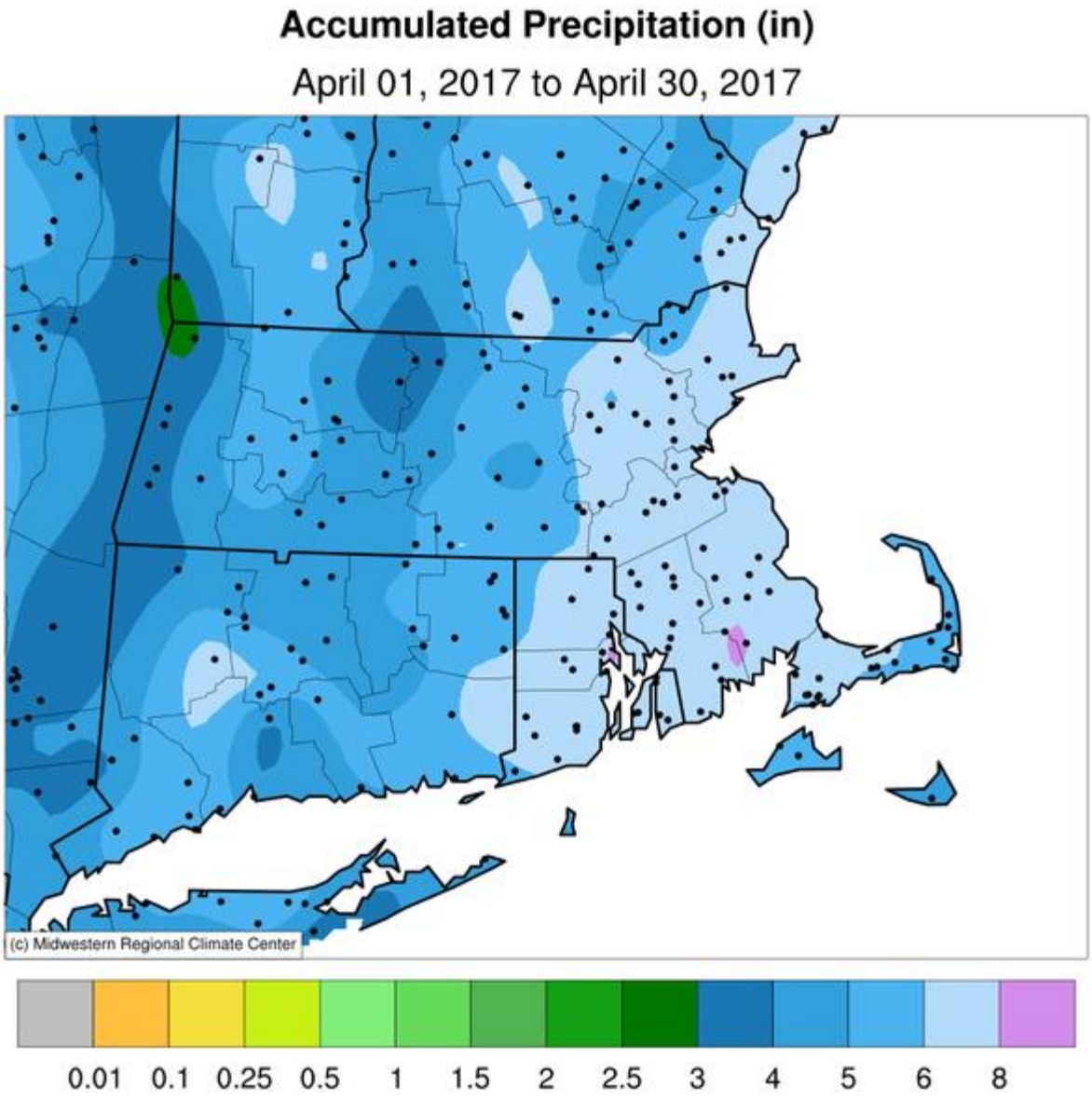
Watershed	Watershed Name	Station	Station Name	Precip
01060003	Piscataqua-Salmon Falls			
0106000310	Hamptom River - Frontal Atlantic Ocean	MA-ES-1	Salisbury 3.7 NW	7.92''
01070004	Nashua			
0107000401	North Nashua River	MA-WR-44	Westminster 0.6 WSW	5.64''
0107000401	North Nashua River	MA-WR-8	Fitchburg 1.6 SSW	4.74''
0107000401	North Nashua River	MA-WR-13	Leominster 1.5 S	5.78''
0107000403	Squannacook River	MA-MD-47	West Townsend 0.5 W	6.19''
01070005	Concord			
0107000502	Concord River	MA-WR-28	Berlin 1.3 WSW	6.86''
0107000502	Concord River	MA-WR-42	Northborough 2.3 N	6.29''
0107000502	Concord River	MA-WR-55	Harvard 2.1 S	6.94''
0107000502	Concord River	MA-MD-12	Acton 1.3 SW	6.74''
0107000502	Concord River	MA-MD-51	Maynard 0.7 ESE	6.80''
0107000502	Concord River	MA-MD-62	Chelmsford 1.2 E	6.51''
01070006	Merrimack River			
0107000613	Shawsheen River	MA-MD-52	Lexington 0.6 SW	6.71''
0107000614	Powwow River - Merrimack River	MA-ES-3	Haverhill 3.6 WNW	6.29''
0107000614	Powwow River - Merrimack River	MA-ES-20	Haverhill 0.7 N	5.60''
0107000614	Powwow River - Merrimack River	MA-ES-27	Amesbury 1.2 ENE	7.86''
01080201	Middle Connecticut			
0108020106	Manhan River - Connecticut River	MA-HS-2	Westhampton 1.8 SW	6.73''
0108020106	Manhan River - Connecticut River	MA-HS-8	Williamsburg 1.2 WSW	4.85''
0108020106	Manhan River - Connecticut River	MA-FR-12	Sunderland 1.3 SE	4.90''

0108020107	Batchelor Brook - Connecticut River	MA-HD-13	Springfield 4.1 W	4.98''
01080202	Miller			
0108020202	Lower Millers River	MA-FR-21	Millers Falls 0.2 SW	4.93''
0108020202	Lower Millers River	MA-WR-40	Gardner 1.4 SSW	3.66''
01080203	Deerfield			
0108020305	Lower Deerfield River	MA-FR-13	Conway 2.9 NW	6.20''
0108020305	Lower Deerfield River	MA-FR-10	Conway 0.9 SW	5.72''
01080204	Chicopee			
01080205	Lower Connecticut			
0108020502	Scantic River	CT-TL-15	Central Somers 0.3 N	4.70''
0108020503	Park River	CT-HR-9	West Hartford 2.7 NNW	5.17''
0108020503	Park River	CT-HR-11	West Hartford 2.7 SSE	5.14''
0108020504	Hockanum River	CT-TL-16	Vernon 3.5 NNE	4.33''
0108020505	Roaring Brook - Connecticut River	CT-HR-6	Wethersfield 1.2 WSW	4.80''
0108020505	Roaring Brook - Connecticut River	CT-HR-22	East Hartford 1.3 E	4.62''
0108020506	Mattabesset River	CT-HR-15	Southington 3.0 E	6.89''
0108020506	Mattabesset River	CT-MD-12	Middletown 3.1 WNW	5.74''
0108020507	Higganum Creek - Connecticut River	CT-MD-2	Portland 0.9 S	5.36''
01080206	Westfield			
0108020601	Headwaters Westfield River	MA-HS-14	Plainfield 2.4 ESE	5.23''
0108020603	Outlet Westfield River	MA-HD-17	Southwick 2.5 WSW	5.49''
01080207	Farmington			
0108020701	Still River	CT-LT-15	Colebrook 1.0 NE	4.61''
0108020702	West Branch Farmington River	MA-BE-4	Becket 5.6 SSW	4.42''
0108020704	Headwaters Farmington River	CT-LT-9	New Hartford Center 3.2 SW	5.04''
0108020704	Headwaters Farmington River	CT-HR-24	Collinsville 0.9 NW	4.92''
0108020704	Headwaters Farmington River	CT-HR-28	North Canton 0.8 SSW	5.31''
0108020705	Salmon Brook	CT-HR-8	North Granby 1.3 ENE	5.40''
01090001	Charles			
0109000101	Plum Island Sound - Frontal Atlantic Ocean	MA-ES-24	Newburyport 0.8 SW	7.07''
0109000102	Ipswich River	MA-MD-85	Wilmington 2.2 WNW	7.07''
0109000102	Ipswich River	MA-MD-45	Wilmington 1.5 NE	6.76''
0109000102	Ipswich River	MA-ES-12	Boxford 2.4 S	6.92''
0109000102	Ipswich River	MA-ES-2	Beverly 2.8 NW	6.56''
0109000103	Essex River - Frontal Atlantic Ocean	MA-ES-41	Danvers 0.8 ESE	8.06''
0109000104	Saugus River - Frontal Broad Sound	MA-ES-8	Marblehead 0.8 SW	7.57''
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-67	Lexington 2.3 SE	7.78''
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-44	Medford 1.2 W	7.26''
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-11	Cambridge 0.9 NNW	7.95''
0109000106	Upper Charles River	MA-WR-1	Milford 2.3 NNW	6.08''
0109000106	Upper Charles River	MA-MD-55	Holliston 0.7 W	6.22''

0109000106	Upper Charles River	MA-MD-42	Holliston 0.8 S	6.05''
0109000106	Upper Charles River	MA-NF-11	Millis 2.0 SW	5.72''
0109000107	Lower Charles River - Frontal Boston Harbor	MA-SF-1	Boston 0.5 WSW	5.54''
0109000108	Neponset River - Frontal Boston Harbor	MA-NF-1	Norwood 1.3 NW	6.78''
0109000109	Whitmans Pond - Frontal Boston Harbor	MA-NF-5	Weymouth 0.5 NW	7.55''
01090002	Cape Cod			
0109000201	North River - Frontal Massachusetts Bay	MA-PL-5	Kingston 3.3 WNW	8.16''
0109000201	North River - Frontal Massachusetts Bay	MA-PL-30	Duxbury 3.7 W	7.72''
0109000202	Cape Cod	MA-BA-57	Falmouth 5.7 N	6.59''
0109000202	Cape Cod	MA-BA-14	North Falmouth 0.5 ENE	6.19''
0109000202	Cape Cod	MA-BA-50	Falmouth 5.4 NNE	5.59''
0109000202	Cape Cod	MA-BA-17	East Falmouth 1.2 WNW	4.39''
0109000202	Cape Cod	MA-BA-19	East Falmouth 0.7 NW	6.99''
0109000202	Cape Cod	MA-BA-3	Falmouth 3.0 E	6.14''
0109000202	Cape Cod	MA-BA-11	East Falmouth 1.4 ESE	5.92''
0109000202	Cape Cod	MA-BA-18	Waquoit 0.6 SSW	6.92''
0109000202	Cape Cod	MA-BA-47	Mashpee 2.4 WSW	6.92''
0109000202	Cape Cod	MA-BA-45	Sandwich 0.9 NNE	6.26''
0109000202	Cape Cod	MA-BA-49	Sandwich 3.5 SSE	7.29''
0109000202	Cape Cod	MA-BA-22	Yarmouth 0.9 NNW	6.62''
0109000202	Cape Cod	MA-BA-33	Brewster 1.5 ESE	6.15''
0109000202	Cape Cod	MA-BA-52	Truro 0.8 E	5.91''
0109000202	Cape Cod	MA-BA-27	Wellfleet 0.7 NW	4.59''
0109000202	Cape Cod	MA-BA-37	Orleans 0.8 W	6.04''
0109000202	Cape Cod	MA-BA-51	Orleans 3.0 S	6.83''
0109000202	Cape Cod	MA-BA-12	Orleans 1.1 E	5.62''
0109000202	Cape Cod	MA-BA-30	Eastham 0.6 SW	5.73''
0109000203	Mattapoisett River - Frontal Buzzards Bay	MA-PL-19	Rochester 1.2 NNW	9.16''
0109000203	Mattapoisett River - Frontal Buzzards Bay	MA-PL-6	Middleborough 5.5 E	7.17''
0109000204	Paskamanset River - Frontal Buzzards Bay	MA-BR-14	Dartmouth 2.5 SSW	7.05''
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-5	Little Compton 1.7 NW	8.00''
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-7	Little Compton 0.6 E	8.19''
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-2	Vineyard Haven 0.8 WSW	6.34''
0109000207	Nantucket Island	MA-NT-1	Nantucket 3.8 WNW	5.58''
0109000207	Nantucket Island	MA-NT-2	Nantucket 2.2 E	5.28''
01090003	Blackstone			
0109000301	Upper Blackstone River	MA-WR-41	Auburn 2.6 SW	5.96''
0109000301	Upper Blackstone River	MA-WR-43	Leicester 2.4 ESE	4.89''
0109000302	Lower Blackstone River	RI-PR-50	Harrisville 1.2 SSE	5.71''
0109000302	Lower Blackstone River	RI-PR-28	North Smithfield 0.7 SE	6.13''
0109000302	Lower Blackstone River	RI-PR-45	Manville 0.4 WSW	6.82''

0109000302	Lower Blackstone River	MA-NF-26	Bellingham 2.4 S	5.70''
01090004	Narragansett			
0109000401	Upper Taunton River	MA-BR-30	Taunton 3.9 N	7.94''
0109000403	Threemile River	MA-NF-19	Foxborough 1.8 SSW	6.75''
0109000403	Threemile River	MA-BR-33	Taunton 2.4 W	8.36''
0109000404	Ten Mile River	MA-BR-40	North Attleboro 0.3 E	6.54''
0109000404	Ten Mile River	MA-BR-17	North Attleboro 0.8 E	6.70''
0109000405	Wonnasquatucket River-Moshassuck River	RI-PR-33	Greenville 0.7 NNW	6.68''
0109000405	Woonasquatucket River-Moshassuck River	RI-PR-51	North Smithfield 0.6 S	6.33''
0109000406	Pawtuxet River	RI-PR-44	Cranston 4.2 ENE	7.93''
0109000407	Palmer River	MA-BR-2	Rehoboth 2.1 N	7.57''
0109000407	Palmer River	MA-BR-35	Swansea 4.6 WNW	8.39''
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-3	Norton 1.8 NNE	7.97''
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-16	Somerset 0.4 SSE	7.24''
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-19	Somerset 2.0 NNE	7.14''
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-8	Dighton 1.1 WSW	8.11''
0109000409	Narragansett Bay	RI-WS-31	Kingston 7.5 NNE	8.86''
0109000409	Narragansett Bay	RI-KN-2	East Greenwich 2.3 ESE	8.74''
0109000409	Narragansett Bay	RI-PR-32	Providence 2.3 NE	7.40''
0109000409	Narragansett Bay	RI-NW-4	Middletown 1.1 SW	5.90''
0109000409	Narragansett Bay	RI-NW-11	Tiverton 0.8 SSW	7.67''
01090005	Pawcatuck-Wood			
0109000501	Wood River	RI-WS-25	Rockville 0.4 E	8.27''
0109000501	Wood River	RI-WS-1	Hope Valley 3.7 S	8.06''
0109000502	Upper Pawcatuck River	RI-WS-37	Kingston 2.4 SW	6.03''
0109000504	Frontal Block Island Sound	RI-WS-36	Charlestown 3.0 WSW	7.51''
0109000504	Frontal Block Island Sound	RI-WS-26	Charlestown 1.1 ENE	6.31''
01100001	Quinebaug			
0110000103	Fivemile River	CT-WN-6	Dayville 2.0 ENE	4.96''
0110000103	Fivemile River	CT-WN-4	East Killingly 1.3 SW	5.04''
0110000105	Mossup River	CT-WN-8	Moosup 1.7 NE	5.62''
0110000106	Pachaug River	CT-NL-21	Griswold 0.9 N	5.50''
01100002	Shetucket			
0110000201	Willmantic River	CT-TL-18	Hebron 5.3 NW	4.88''
0110000201	Willmantic River	CT-TL-2	Staffordville 0.4 NNW	4.94''
0110000203	Shetucket River	CT-WN-10	South Windham 1.3 NNE	5.12''
0110000203	Shetucket River	CT-NL-10	Norwich 2.5 NNE	6.70''
01100003	Thames			
0110000302	Thames River-Frontal New London Harbor	CT-NL-7	Uncasville-Oxoboxo Valley 5.6 W	7.29''
0110000302	Thames River-Frontal New London Harbor	CT-NL-17	Waterford 2.2 N	7.92''
0110000302	Thames River-Frontal New London Harbor	CT-NL-6	New London 1.0 NNW	7.55''

0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-22	Central Waterford 2.7 SSW	6.90''
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-19	Mystic 0.9 W	6.15''
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-24	Stonington 1.4 NNW	5.71''
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-18	Stonington 0.5 NNE	6.31''
01100004	Quinnipiac			
0110000401	Quinnipiac River	CT-NH-30	Cheshire Village 2.2 SE	6.75''
0110000401	Quinnipiac River	CT-HR-23	Southington 0.9 SSE	6.21''
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-5	Westbrook Center 1.1 N	6.72''
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-11	Westbrook Center 1.5 NE	6.71''
0110000403	Mill River - Frontal Long Island Sound	CT-NH-16	Milford 1.8 E	6.36''
0110000403	Mill River - Frontal Long Island Sound	CT-NH-29	Hamden 3.0 WSW	7.34''
01100005	Housatonic			
0110000501	Headwaters Housatonic River	MA-BE-11	Great Barrington 3.0 N	3.74''
0110000501	Headwaters Housatonic River	MA-BE-3	Stockbridge .2 NNE	3.63''
0110000501	Headwaters Housatonic River	MA-BE-10	Pittsfield 2.0 NNW	3.63''
0110000508	Still River - Housatonic River	CT-FR-43	Bethel 0.5 E	4.84''
0110000508	Still River - Housatonic River	CT-FR-41	Bethel 3.5 NNE	4.37''
0110000508	Still River - Housatonic River	CT-FR-9	Brookfield 3.3 SSE	4.77''
0110000510	Eightmile Brook - Housatonic River	CT-FR-44	Newtown 4.3 E	5.72''
0110000512	Outlet Naugatuck River	CT-NH-26	Prospect 1.5 NW	5.90''
0110000512	Outlet Naugatuck River	CT-NH-22	Prospect 0.5 SW	5.84''
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-42	Monroe 0.1 SE	5.75''
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-23	Shelton 1.3 W	6.06''
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-46	Stratford 0.2 ESE	6.60''
01100006	Saugatuck			
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-31	Newtown 4.6 SSW	4.50''
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-29	Ridgefield 1.9 SSE	5.54''
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-3	New Canaan 1.9 ENE	5.63''
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-25	Norwalk 2.9 NNW	5.94''
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-32	Monroe 0.8 W	5.83''
0110000604	Mianus River-Rippowam River	CT-FR-39	Stamford 4.2 S	5.46''
0110000604	Mianus River-Rippowam River	CT-FR-50	Darien 2.8 NW	6.05''
0110000604	Mianus River-Rippowam River	CT-FR-35	Darien 1.8 ENE	5.58''


Accumulated Precipitation (in)
April 01, 2017 to April 30, 2017
(c) Midwestern Regional Climate Center
0.01 0.1 0.25 0.5 1 1.5 2 2.5 3 4 5 6 8

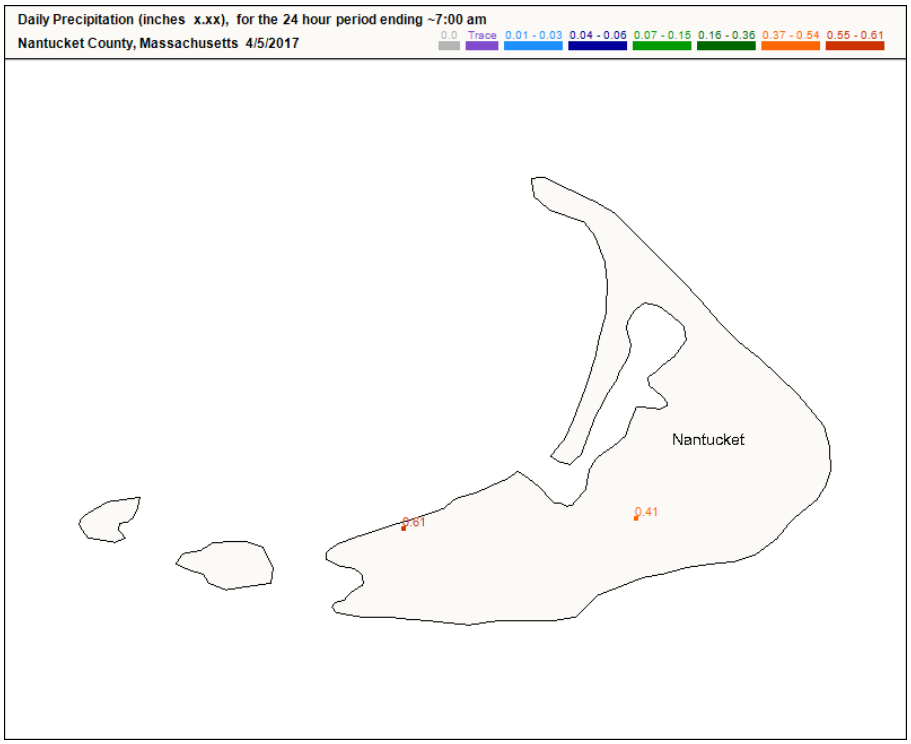
Map of the Month – Nantucket County MA

What Herman Melville called “an elbow of sand; all beach, without a background”, a leftover pile of sand and gravel from the retreating ice age, 30 miles south of the coast of Cape Cod, once the whaling capital of the world, where the land meets the sky and the sea, the smell of salt air, the thunder of the waves, the chimes from the clock tower, what the Algonquins called “Natockete”, the far away place.

When the ferry boat comes around Brant Point Lighthouse, a harbor opens up a location locked in time but always moving, church steeples, the oldest functioning windmill in the US from 1746, no traffic lights, cobblestone streets near the harbor, buildings sided with greying cedar shingles and white trim, a bustling airport and ferry terminal, quiet hamlets, bike paths, conservation lands and farm lands, lighthouses, and home to well over 10,000 people during the winter, and nearly 50,000 people during the summer on 50 square miles of land.

They all get their water from the same aquifer, barely 40 feet below the surface, a narrow interface between salt water and fresh water. Quantity of water is not the biggest problem, but quality is as development, insecticdes and herbicides can affect the underground aquifer.

This locale is so different, being out among the currents of the North Atlantic. If you know of someone who wants to find and make a difference, ask them to join us at CoCoRaHS.

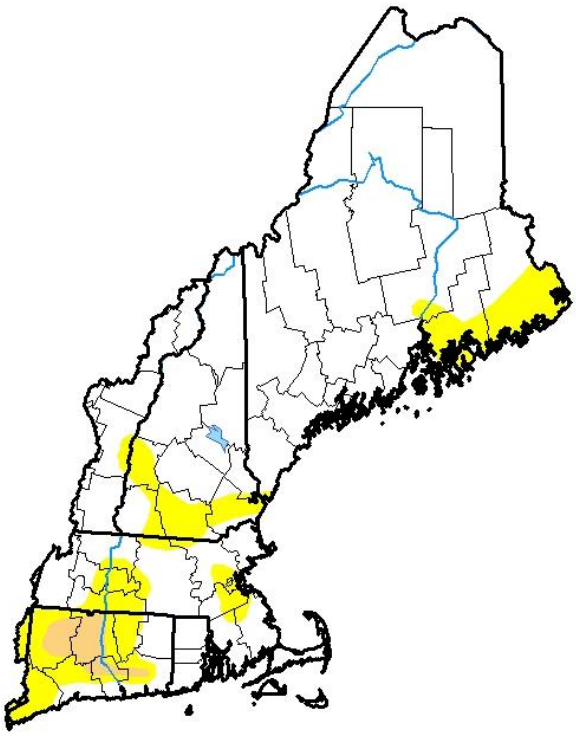


From the Drought Monitor.

A year ago, this image looked about the same as it does now. A warm and dry summer followed and the drought worsened. Winter snows and spring rains help fill reservoirs. Summer rains help sustain a growing season. Every drop counts and zeros do too!

U.S. Drought Monitor

New England Watershed



May 2, 2017

(Released Thursday, May. 4, 2017)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0	D1	D2	D3	D4
Current	82.86	15.13	2.00	0.00	0.00	0.00
Last Week *04-25-2017*	70.05	26.82	3.12	0.00	0.00	0.00
3 Months Ago *01-31-2017*	17.02	23.02	40.65	15.59	3.72	0.00
Start of Calendar Year *01-03-2017*	14.64	11.89	49.23	19.61	4.63	0.00
Start of Water Year *09-27-2016*	26.77	14.45	18.64	25.58	14.56	0.00
One Year Ago *05-03-2016*	90.13	9.87	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:
Brian Fuchs
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

For a viewing explanation on the Drought Monitor, the CoCoRaHS animated video is on YouTube.

Rulers of the Snow

If we say that “Rain does not fall the same on all”, snowfall is even more dynamic among our three states. To start the snow season, the hills of western Massachusetts saw the Lake Effect snows stream into their area, for February and March, Blizzard Warnings came to southern, coastal and eastern ends of our area, and one late season snow event for the northern parts of Massachusetts.

Throughout the snow season, your reports of snow are seen and used by many. We mentioned in a newsletter article about NOHRSC and evidence that your reports are directly used into their snow modeling and hydrologic forecasts. Every month, that newsletter article from Nevada was mentioned on how some group at syracuse.com was looking at CoCoRaHS and others for stations that did not miss any days of snow reporting.

Measuring and reporting snowfall, snow depth, and SWE is not something automated machines can do. What you do, by sticking a ruler in the snow and taking core samples and melting core samples, reporting zeros in the snow section, is extremely valuable and noteworthy work.

Our observers in Berkshire, Franklin and Hampshire Counties did outstanding work this winter season. Their reports, and their Comments such as these, highlighted the often difficult conditions encountered in obtaining snowfall, snow depth and our SWE Monday custom.

2/6/2017	MA-FR-17	Buckland 1.8 ESE	0.00	SW, clear. Snow pack has become ice. Weekly SWE had to be chipped out with ice pick making it inaccurate

Our observer in Becket MA, MA-BE-4, has once again stood out above all others when it comes to measuring and reporting snow. While most of us saw snow come and go, pile up and melt away, this observer measured snowfall and snow depth every day, and reported snow cover on the ground for over 128 days out of 135 days from a period from around Thanksgiving in late November through all of March into early April.

Thank you one and all for measuring and reporting snow during this past season. Sometimes easy, sometimes difficult, but always valuable.

In this next section, your snowfall and snow depth reports were looked at from a period ranging from October 1, 2016 to April 3, 2017, a period of 185 days.

The following observers submitted the most snow fall reports, mostly zeros, during that period of time. The sort is by County from west to east, north to south. You are the Rulers of the Snow.

Station	Name	2016-2017 Snowfall	185 Days Snowfall Reports	185 Days Snow Depth Reports
MA-BE-4	Becket 5.6 SSW	93.8''	✓	✓
CT-LT-9	New Hartford Center 3.2 SW	72.1''		
CT-FR-23	Shelton 1.3 W	48.7''	✓	
CT-FR-9	Brookfield 3.3 SSE	51.6''	✓	✓
CT-FR-44	Newtown 4.3 E	48.9''		
CT-FR-29	Ridgefield 1.9 SSE	56.9''		
CT-FR-25	Norwalk 2.9 NNW	40.3''		
MA-FR-13	Conway 2.9 NW	74.2''		
MA-FR-17	Buckland 1.8 ESE	74.3''		
MA-FR-10	Conway 0.9 SW	66.5''		
CT-HR-24	Collinsville 0.9 NW	65.2''	✓	✓
CT-HR-11	West Hartford 2.7 SSE	55.2''		
CT-HR-8	North Granby 1.3 ENE	65.9''		
MA-WR-42	Northborough 2.3 N	54.7''		
CT-NL-6	New London 1.0 NNW	40.7''		
CT-NL-21	Griswold 0.9 N	39.5''		
RI-PR-33	Greenville 0.7 NNW	59.2''	✓	
RI-NW-7	Little Compton 0.6 E	22.2''		
RI-NW-11	Tiverton 0.8 SSW	40.1''		
MA-BR-8	Dighton 1.1 WSW	50.8''		
MA-MD-51	Maynard 0.7 ESE	58.7''		
MA-MD-12	Acton 1.3 SW	63.7''		
MA-ES-12	Boxford 2.4 S	57.1''	✓	✓
MA-ES-4	Groveland 0.5 WSW	71.9''	✓	✓
MA-ES-3	Haverhill 3.6 WNW	71.8''		
MA-NF-1	Norwood 1.3 NW	53.2''	✓	✓
MA-NF-11	Millis 2.0 SW	44.1''		
MA-BA-3	Falmouth 3.0 E	40.9''	✓	✓
MA-BA-8	Falmouth 1.8 WSW	29.0''		
MA-BA-12	Orleans 1.1 E	21.2''		

Happy Anniversary, Massachusetts!

March 1, 2009. Massachusetts is admitted to CoCoRaHS, the 40th state to join the network.

As of May 1, 2017, these 30 active observers have submitted over 2000 Daily Reports.

MA-NF-1	Norwood 1.3 NW	MA-NF-5	Weymouth 0.5 NW
MA-BR-3	Norton 1.8 NNE	MA-MD-12	Acton 1.3 SW
MA-BA-3	Falmouth 3.0 E	MA-PL-6	Middleborough 5.5 E
MA-ES-3	Haverhill 3.6 WNW	MA-BR-9	Taunton 2.6 NW
MA-ES-4	Groveland 0.5 WSW	MA-BE-4	Becket 5.6 SSW
MA-BR-8	Dighton 1.1 WSW	MA-BA-18	Waquoit 0.6 SSW
MA-ES-1	Salisbury 3.7 NW	MA-BA-17	East Falmouth 1.2 WNW
MA-PL-5	Kingston 3.3 WNW	MA-BE-3	Stockbridge .2 NNE
MA-ES-8	Marblehead 0.8 SW	MA-WR-13	Leominster 1.5 S
MA-ES-2	Beverly 2.8 NW	MA-MD-11	Cambridge 0.9 NNW
MA-WR-1	Milford 2.3 NNW	MA-BA-13	Falmouth 0.6 NNW
MA-BA-1	Yarmouth 2.3 SSE	MA-BA-12	Orleans 1.1 E
MA-BR-2	Rehoboth 2.1 N	MA-BA-19	East Falmouth 0.7 NW
MA-MD-7	Winchester 0.7 SE	MA-ES-12	Boxford 2.4 S
MA-BA-8	Falmouth 1.8 WSW	MA-HS-2	Westhampton 1.8 SW

Massachusetts CoCoRaHS

Comments by Joe DelliCarpini – Science & Operations Officer, NWS Taunton MA and State Coordinator for Massachusetts

PROMOTIONAL PHOTO FOR MASSACHUSETTS COCORAHS (HENRY REGES)

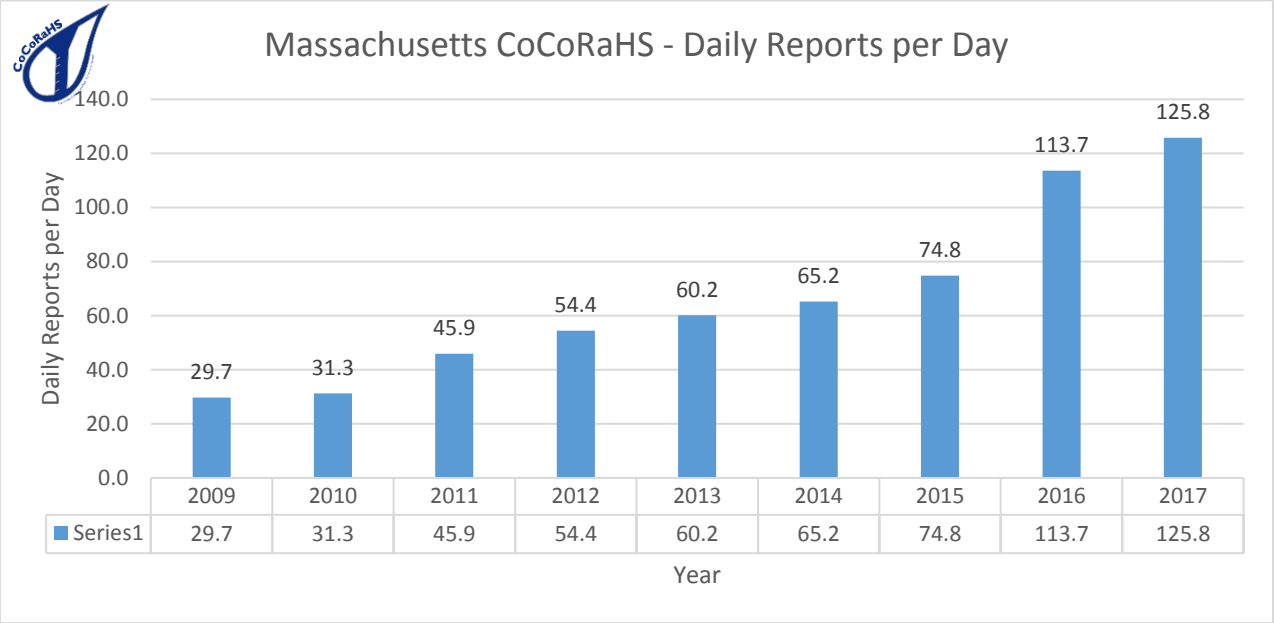
After Rhode Island was established as the first state in New England to join CoCoRaHS in April 2008, Henry Reges set his sights on Massachusetts to join the growing network. As a frequent visitor to Plymouth to see family and friends, he provided us with a special photo which we still use today (left). It's not every day you see a 4-inch rain gauge next to a historical landmark!

GAUGE PICTURE OF AMS HQ ON BEACON STREET IN BOSTON, MA-SF-1

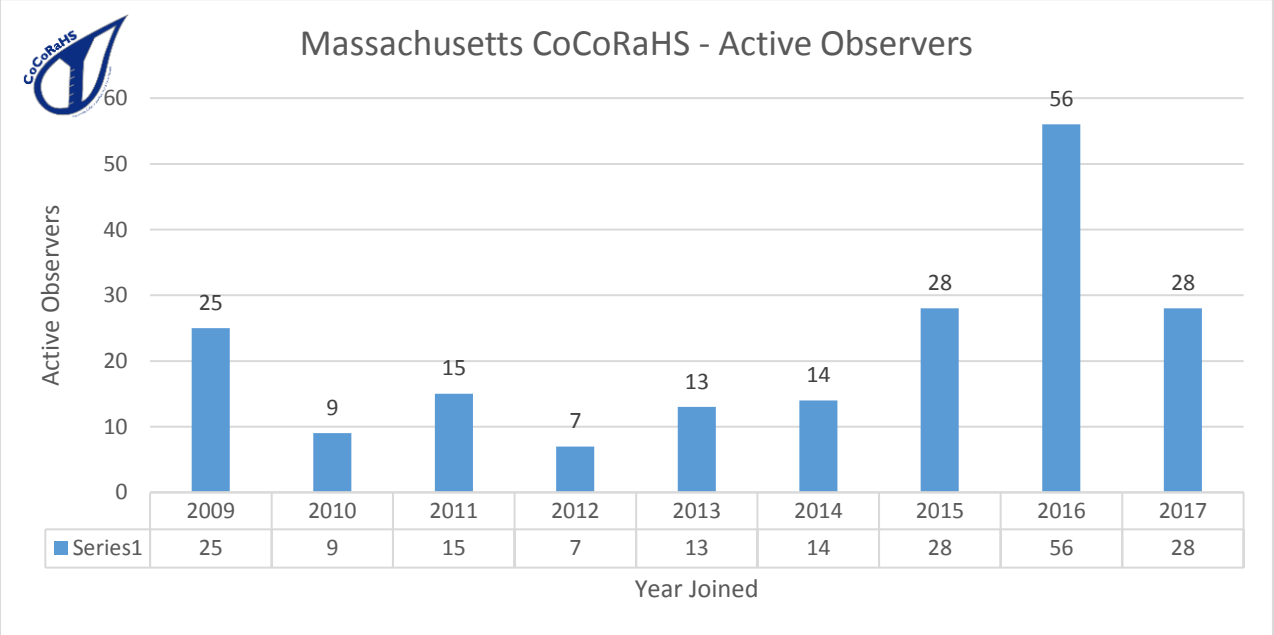
Henry worked with our office to set up a meeting at the American Meteorological Society's (AMS) Headquarters in Boston. We also invited representatives from Massachusetts DCR (Department of Conservation and Recreation) to join us since they were a key partner of ours for drought and water resource management in the state. Henry felt it would be appropriate for the AMS Headquarters to be the first CoCoRaHS station in the Commonwealth and to this day you can see their reports listed under MA-SF-1. We began an aggressive recruiting campaign that included newspapers, TV meteorologists, and NWS Skywarn training sessions.

Prior to the March 1, 2009 startup we had 16 observers ready to go! During the first month, another 32 observers signed up, and as of this month we have grown to a total of 191 actively reporting observers in Massachusetts. We want to give a special welcome to the 53 observers who signed up during this year's CoCoRaHS March Madness recruiting drive!

All of the other states have had their ups and downs with reporting, except one. Be proud of the Massachusetts reporting.



Recruiting helps! If you know of someone who would like the measure and map precipitation, ask them to join us at CoCoRaHS.



Wrap up

As the days get longer, the storms get stronger. Be safe and informed with severe thunderstorm, tornado, hail and lightning events should they occur in your locale. Pay attention to your National Weather Service Forecast Office's issuance of Hazardous Weather Outlooks (HWO's), Watches and Warnings or Advisories.

This time of the year is a relevant time of year to look at the Storm Prediction Center's website from Norman OK. A nationwide outlook is given to the risk of storms occurring in a certain area across our continent.

We have mentioned Hail in the past two newsletters. The "H" is CoCoRaHS is for Hail. If you do experience hail, keep track of the start and end time of the hailstones, and when it's safe to do so, measure and report a Hail Report on the website. It only takes a minute for that report to find its way to your local NWS Forecast Office.

This month's WxTalk Webinar on May 11th is from one our first observers in the area, the AMS headquarters, MA-SF-1, in Boston. Join in live or watch the recording on YouTube.

We did this last year and it worked out well, so we are going to do it again this year. A call to all of you to take 1 digital picture of your rain gauge. With your permission and your station ID, we would like to make a photo montage of all of your gauges, a close up picture of your gauge and point the camera in a direction that can make for a good background. Please make the digital picture more about the gauge. If you want to include a little background story, we will print that too.

We will make this call for pictures over the next 1 or 2 monthly newsletters. By the end of summer, we hope to have a photo montage put together. Email your photo along with your CoCoRaHS Station ID to joseph.dellicarpini@noaa.gov for MA & RI observers or to matt.spies@att.net for the CT observers. Subject: Gauge Photo please, so we can group these email messages together within our inbox.

Thank you for all that you do for CoCoRaHS, whether in the past, present and in the days to come.