

Community Collaborative Rain, Hail & Snow Network



# Southern



# New England

**July 2020**

In Year 1820, our nation's flag had 23 stars, having added Alabama in 1819 and Maine in 1820.

When in the course of precipitation events, it becomes necessary for one observer to show all of us how variable precipitation can be. Last month, that happened in a few places, Naugatuck CT and Old Lyme & East Lyme CT, and from Harrisville RI to Norwood MA. Joe's article is about his flooding rain experiences at the end of June.

We hold these truths to be self-evident. That among them are rain, hail and the water content of snow! Your reporting for June was outstanding! A high ratio of zero-precip days, a record-breaking effort with Condition Monitoring Reports, a good number of well-timed Hail and Significant Weather Reports, and a strong number of stations that reported all days, and reported snow fall and snow depth all days, as well.

We kick it all off with our observers, recently crossing over multiples of 1000 Daily Reports, our version of The "Grand" List.

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.

### **3000 Daily Reports**

MA-BA-14     North Falmouth 0.5 ENE  
CT-NL-5      Oakdale 2.6 WNW  
CT-NH-14     Prospect 1.9 ENE  
MA-BA-11     East Falmouth 1.4 ESE

### **2000 Daily Reports**

MA-MD-45     Wilmington 1.5 NE

### **1000 Daily Reports**

MA-HD-25     Ludlow 2.3 SW

## **Flash Flooding in Norwood MA**

Joe DelliCarpini – Science & Operations Officer, NWS Boston/Norton MA

On Sunday June 28, 2020, slow moving thunderstorms dumped torrential rainfall in parts of eastern Massachusetts. The town of Norwood was particularly hard hit, where over 4 inches of rain fell in 45 minutes. At my station, MA-NF-1, a total of 4.37 inches of rain fell while about two miles to the southeast, a total of 3.64 inches was reported at Norwood Airport. The rainfall produced significant flash flooding as streets literally turned into rivers. Underpasses were flooded with more than two feet of water. Norwood Hospital flooded and patients had to be evacuated.



FLASH FLOODING IN NORWOOD MA ON JUNE 28



FLASH FLOODING IN NORWOOD MA ON JUNE 28

NWS Boston issued a Flash Flood Warning and upgraded it to a rare Flash Flood Emergency as the situation escalated. This was only the third Flash Flood Emergency issued by the office and the first one issued for a “non-tropical” event (Arthur in July, 2014 and Irene in August, 2011).

Significant Weather Report	
Station Number:	MA-NF-1
Station Name:	Norwood 1.3 NW
Date:	6/28/2020 5:35 PM
Submitted:	6/28/2020 5:44 PM
Notes:	Most of the rain fell between 4 and 5 PM. Typical street flooding here, but in downtown Norwood there is significant flooding of typical flood prone areas. Still raining but not nearly as hard as earlier.
Taken at Registered:	True
Location:	
Precip Duration:	240
Minutes:	
New Precip Amount:	4.32 in.
Total Precip Amount:	NA
New Snow Depth:	NA
Total Snow Depth:	NA
Flooding:	Unusual

**SIGNIFICANT WEATHER REPORT FROM MA-NF-1. MORE THAN 2" OF RAIN AND FLOODING.**

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Flash Flood Statement
National Weather Service Boston/Norton MA
543 PM EDT Sun Jun 28 2020

MAC005-017-021-023-027-282300-
/O.CON.KBOX.FF.W.0003.00000T0000Z-200628T2300Z/
/00000.0.ER.00000T0000Z.00000T0000Z.00000T0000Z.00/
Norfolk MA-Worcester MA-Middlesex MA-Plymouth MA-Bristol MA-
543 PM EDT Sun Jun 28 2020

...THIS IS A FLASH FLOOD EMERGENCY FOR THE TOWN OF NORWOOD AND
SURROUNDING TOWNS...

...THE FLASH FLOOD WARNING REMAINS IN EFFECT UNTIL 700 PM EDT FOR
NORFOLK...EASTERN WORCESTER...SOUTH CENTRAL MIDDLESEX...WEST CENTRAL
PLYMOUTH AND NORTH CENTRAL BRISTOL COUNTIES...

At 537 PM EDT, law enforcement reported heavy rain falling including
the towns of Norwood and Dedham where up to 3.5 inches have already
fallen. Flash flooding is already occurring. Some evacuations may be
necessary. Listen to local officials.

THIS IS A FLASH FLOOD EMERGENCY FOR NORWOOD AND SURROUNDING TOWNS!
This is a PARTICULARLY DANGEROUS SITUATION. SEEK HIGHER GROUND NOW!

HAZARD...Life threatening flash flooding. Heavy rain producing flash
flooding.

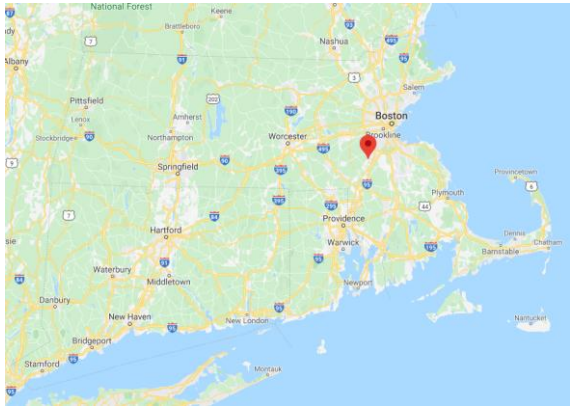
SOURCE...Law enforcement.

IMPACT...This is a PARTICULARLY DANGEROUS SITUATION. SEEK HIGHER
GROUND NOW! Life threatening flash flooding of low water
crossings, small creeks and streams, urban areas, highways,
streets and underpasses.

Some locations that will experience flooding include...
Brockton, Quincy, Randolph, Franklin, Norwood, Milford, Milton,
Stoughton, Dedham, Walpole, Mansfield, Easton, Canton, Sharon,
Foxborough, Bellingham, Abington, Westwood, Holliston and Medway.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Move to higher ground now. This is an extremely dangerous and
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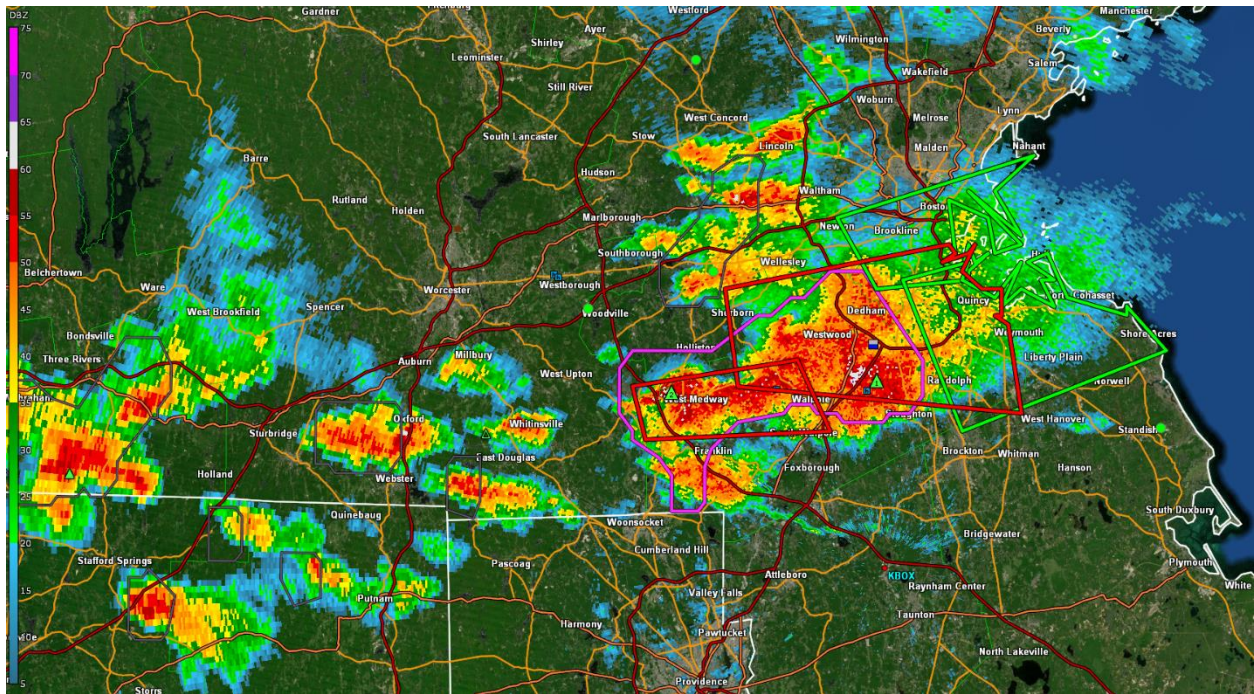


**RED MARKER ON NORWOOD MA**

**FLASH FLOOD EMERGENCY ISSUED BY NWS BOSTON**



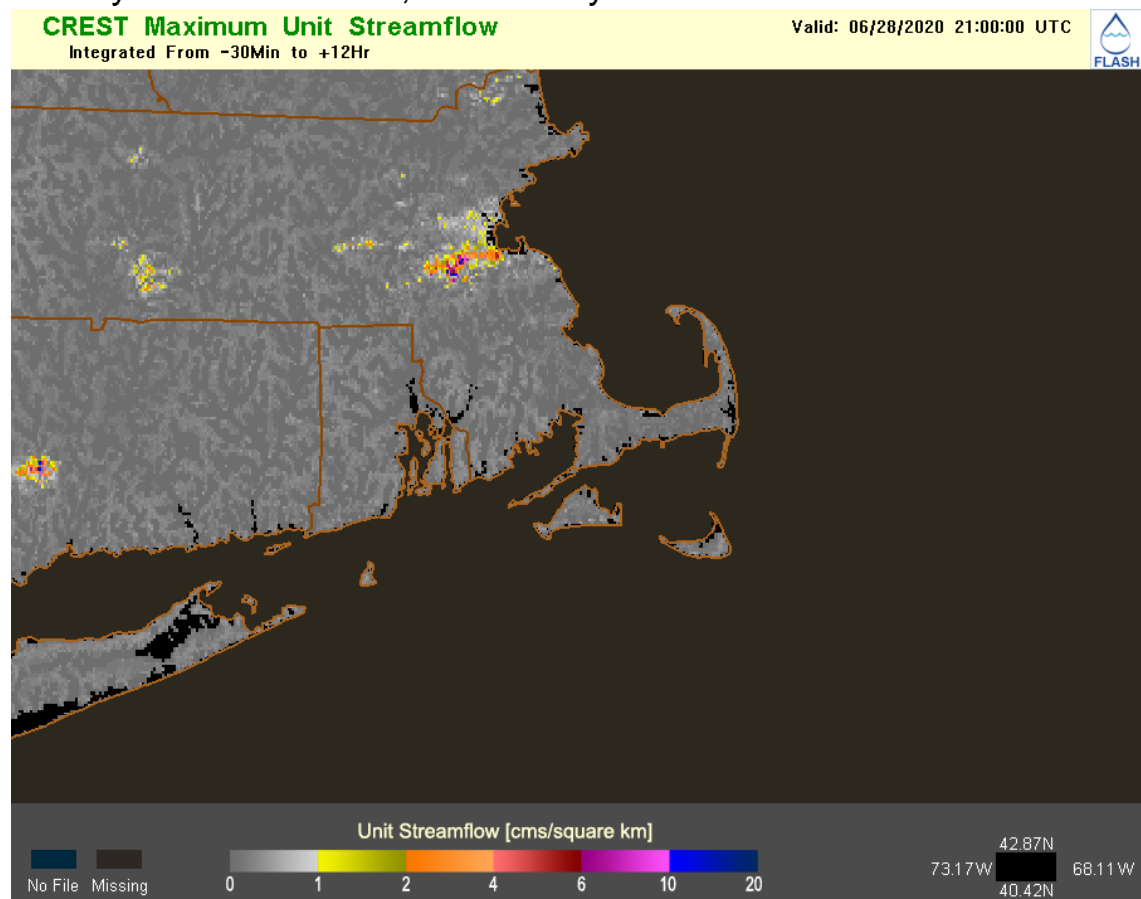
The thunderstorms formed in warm and humid air ahead of a sea breeze front that moved inland from Boston that afternoon. Thunderstorms were able to keep forming along that boundary and repeatedly moved through the Norwood area from the west. The radar image below shows a snapshot of the thunderstorms that afternoon. You can see the storms “backbuilding” to the west of Norwood, near Walpole and Medway. The blue line to the south of the thunderstorms is known as an outflow boundary and is the leading edge of cooler air coming out of the storms.



**RADAR IMAGE OF BACKBUILDING THUNDERSTORMS IN EASTERN MA**

A new tool that is available for flash flood prediction is called FLASH (Flooded Locations and Simulated Hydrographs). FLASH was developed through a partnership between Oklahoma University, the National Severe Storms Laboratory (NSSL), and the Cooperative Institute for Mesoscale Meteorological Studies (CIMMS). It simulates flow on rivers and streams using radar rainfall estimates and automated rain gauges in order to better predict flash flooding on a local scale. The images update every 10 minutes.

In the image below, you can see the higher flows in eastern Massachusetts on the afternoon of June 28, which is located over Norwood. Using this information, NWS forecasters were quickly made aware of the higher stream flows and were able to issue a Flash Flood Warning. FLASH was also used more recently with the flash flooding that affected Hartford, CT on July 2 and in Ludlow, MA on July 6.



FLASH IMAGE OF MAXIMUM STREAMFLOW ON JUNE 28

## **News Items**

### ***Nobody does it quite as good as you do***

No group of observers in our network reports like this group does. That's the conclusion I came up with after looking at June's Daily Reports. June saw a majority of zeros. Did that discourage you from reporting? No! We have heroes that report zeros!

Compare the number of stations that reported all 30 days, and make that a % of the total number of stations that reported in the month. Across the network, the average is 42% of the stations report all 30 days in the month of June. (8,046 out of 19,039) Ours? 60%! (268 out of 445) With a month dominated by zeros, we even dominated the % of stations that reported all 30 days in June.

That's not all.

The Rulers of the Snow were there in June. Our group submitted over 3100 snow depth reports. That stood out above the others in the network at 28% of all Daily Reports. And another network-leading 76 stations that reported snow fall and snow depth for all days in June.

Congratulations to everyone!

### ***Drought is here***

The Drought Meetings will continue until they are rained out! Summer heat, leaves on trees, and slightly above normal water usage with us staying at home, watering lawns that we see every day, and washing our hands, will put a strain on water supplies. One, two or several summer downpours will not end a dry spell or drought. We are going to need several weeks of widespread and above normal rainfall to offset the several weeks we have had of below normal rainfall. Your daily reporting of precipitation, zeros included, and weekly reporting of conditions does and will make a difference in accurately determining our balance of water.

## Significant Weather Reports

It is summer downpour season. 1" per hour or 2" total or flooding or anything else significant, and a Significant Weather Report, filled out and submitted... only takes 1 minute to arrive at a Forecast Office. 1" per hour here. Well done, with a comment too!

[View Data : View Significant Weather Report](#) US Units v

Significant Weather Report	
Station Number:	RI-WS-31
Station Name:	Kingston 7.5 NNE
Date:	6/30/2020 4:20 PM
Submitted	6/30/2020 4:34 PM
Notes:	heavy rain for most of the duration; caused flooding in my garage and minor roof leakage that I rarely see.
Taken at Registered Location:	True
Precip Duration Minutes:	55
New Precip Amount:	1.01 in.
Total Precip Amount:	1.01 in.
New Snow Depth:	NA
Total Snow Depth:	NA
Flooding:	Minor

Submitted at 4:34PM. Arrived 2035Z or 4:35PM. In transit time – 1 minute to notify ... two offices! BOX and OKX being that this county is tangent to another office.

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NZUS45 KBOU 302035  
CCRAHS

intense rain report from CoCoRAHS spotter:

06/30/2020 04:20 PM local time

County: Washington RI

Kingston 7.5 NNE (number RI-WS-31)

Latitude: [REDACTED]

Longitude [REDACTED]

1.01 inches so far, with 1.01 inches in the past 55 mins

Flooding: Minor

Comments: heavy rain for most of the duration; caused flooding in my garage and minor roof leakage that I rarely see

Received NWS Boulder Tue Jun 30 14:35:35 2020 MDT

Sent to WFOs: BOX,OKX



## **Observer Tips**

**Significant Weather Reports:** The downpours are here. Keep our reporting criteria in mind, as we can alert our area NWS Forecast Offices in real time with what is occurring, as you saw in the previous page.

Reporting criteria are

- **1” or more of rain in 1 hour or less.**
- **2” or more of rain.** We had 27 reports of 2” or more rain in June. We are asking for Significant Weather Reports when that occurs.
- **Flooding.**
- **Anything you feel is significant.**

**mPING app for Apple and Android:** Earlier this week, this app appears not be working. But do attempt to use mPING in real-time on your GPS enabled mobile device for whatever meteorological phenomena comes our way.

**Comments: Observation Notes. Additional Notes.** As the rains get stronger, the comments should get longer, and more of them.

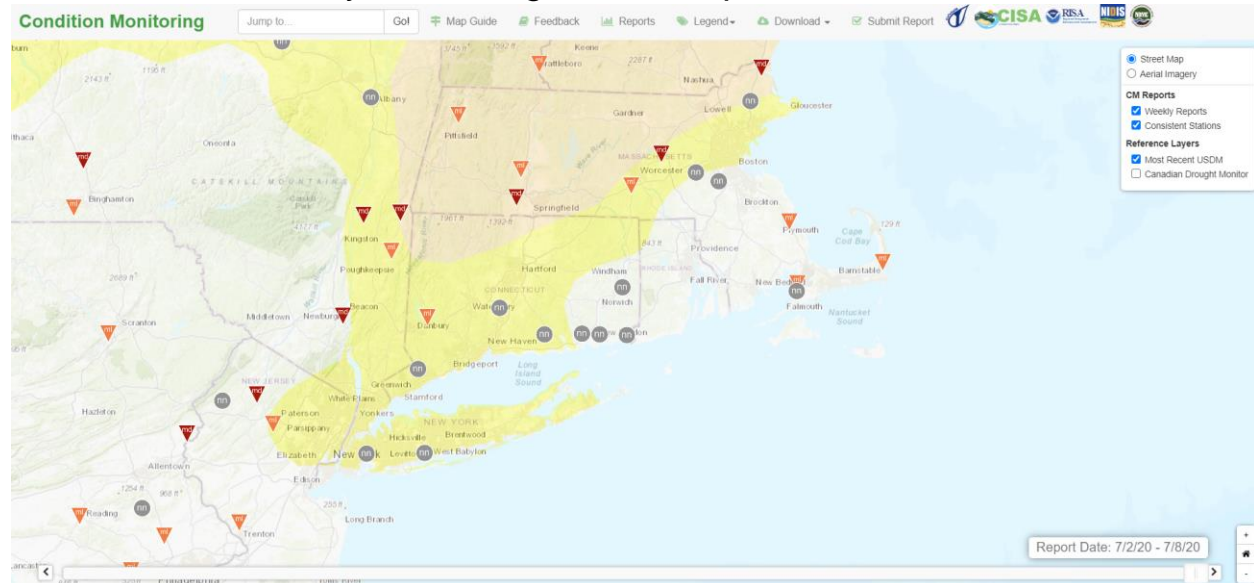
We would like to see more about your precipitation reports, and our interests get higher and the amounts get larger. One area that we are not changing or growing in, is Comments. Your type written words, clarifying and verifying the reported amounts are of importance. Please make a Comment when you have rain or a downpour to report.

1 minute [video](#) showing more about the importance of Comments.

**What to do about dew?** Clear skies day and night, reports of “T” for trace or 0.01” do stand out like a sore thumb. If you are new to the crew, know what to do about dew when you see dew on the gauge at your morning observation. Check for confirming cues of wet pavement, cloud cover, larger droplets on the funnel, or passing showers before reporting that small amount of liquid found in your inner cylinder. If you have your doubts or uncertainties about what fell from the sky or from coastal fog or from dew, write them out in a Comment.

**Condition Monitoring Reports:** Summer heat and downpours are here. What are the conditions where you are?

One report a week is all that we seek. Develop a reputation of being a Consistent Station by submitting over 20 reports in a 52-week timeframe.



**nn Falmouth 3.1 NNW**  
Sun Jul 05 2020

A bit of rain this week, 0.29". has kept grass and plants growing with no signs of stress or wilting. Ponds have dropped slightly but still very full. Mud visible in low areas in the woods. Interestingly, some instability showers earlier this week provided 0.1" rain here, but 3 miles away, 0.5" ...localized big differences.

MA-BA-2 -- General Awareness, Plants And Wildlife, Water Supply And Quality

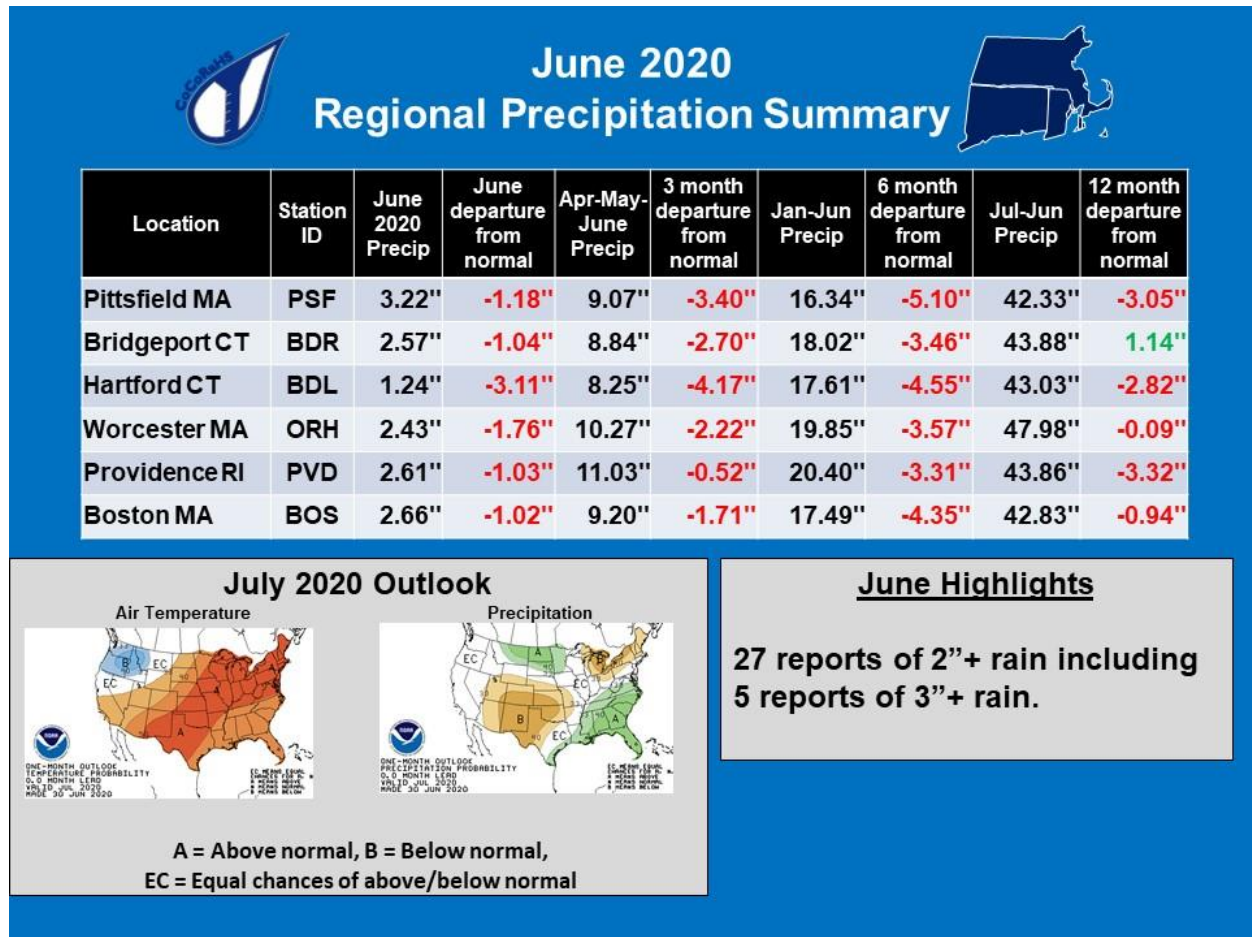
**m Easthampton 0.5 SW**  
Fri Jul 03 2020

Just under 2 inches of rain over the last week or so have helped some of the plants that have been suffering. Trees and shrubs seem to not be so wilted. Some areas of grass appear greener and more healthy. Area is still under a watering restriction. Some other areas affected by the dry conditions still look brown/dead and may take longer to recover.

MA-HS-26 -- General Awareness, Plants And Wildlife, Water Supply And Quality

# Detail and Summary for June 2020

From the National Weather Service (NWS) Climate sites for June 2020.



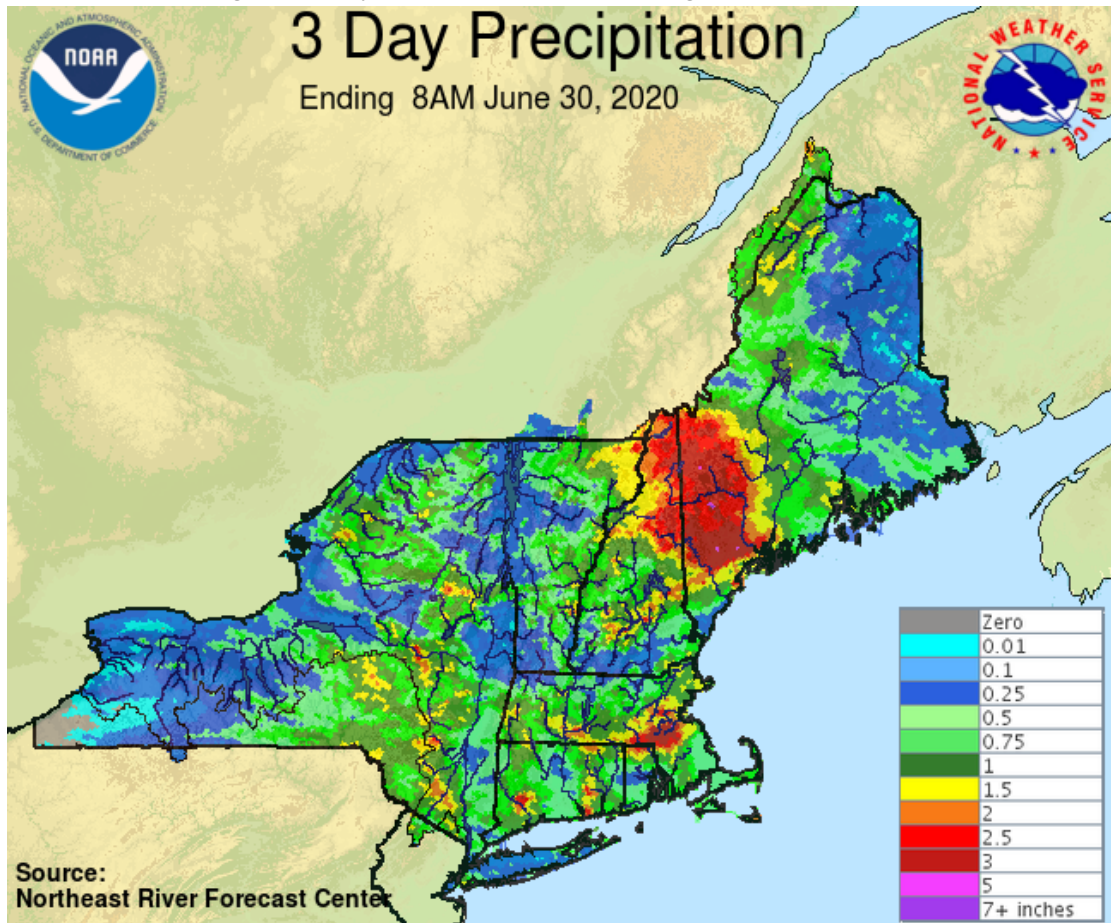
June started out with light rain on the 3<sup>rd</sup>. Rain along the shoreline on the 4<sup>th</sup> and each day after until the 7<sup>th</sup>. Widespread rains on the 12<sup>th</sup>, heaviest in southeast MA. And then a long and usual dry spell that ended when the rains came to eastern parts on the 25<sup>th</sup>.

The main rains ended the month in the last 3 days of the month, noted by the map on the next page, and by over 400 Daily Reports, 17 Significant Weather Reports and 9 Hail Reports from all of you on those last 3 days. Take in the variable nature of precipitation.

And do take in the next section with appreciation for your efforts.

## From your reports for June 2020

Observers reporting	<b>445</b>
Reported all 30 days	<b>268</b>
Completed by Multi-Day Reports	34
Missing 1 or 2 reports	62
Daily Reports	11,356
Zero Reports	7,603
Non-Zero Reports	3,753
Daily Comments	1,797
Multi-Day Reports	132
Condition Monitoring Reports	<b>102</b>
Significant Weather Reports	30
Hail Reports	12
Snowfall Reports	6,428
Snow Depth Reports	3,143
Total SWE Reports	2,286
Highest Daily Report	4.82" in Bellingham MA (MA-NF-26) reported on 6/29





Another record here. Over 300 stations!!! We have filled up 8 pages, and have stretched into 9 pages.

A network-leading 60% of our stations reported all days. Another fraction did so with the help of Multi-Day reports. 68% of our stations are listed here. (301 out of 445)

About 4 stations got an early start to the 4<sup>th</sup> of July weekend. Because it rained most days to end June and leading up to the 4<sup>th</sup>, there was no way to get an accurate total from those stations.

Because Memorial Day weekend ended without rain, a few stations that stretched out Memorial Day weekend are on this list.

Every station has an address. Not just a mailing address but a watershed address. By the watershed address is how this list is sorted. Watersheds are explained in this 5 minute [video](#).

Here's how this list works: Have no missing days in the calendar month, no NA's on big precip days, use Multi-Day Reports accurately, and your station can end up on this list.

Watershed	Watershed Name	Station Number	Station Name	Precip
01070004	Nashua			
0107000401	North Nashua River	MA-WR-44	Westminster 0.6 WSW	3.60"
0107000401	North Nashua River	MA-WR-8	Fitchburg 1.6 SSW	1.37"
0107000401	North Nashua River	MA-WR-22	Fitchburg 2.0 NNE	2.11"
0107000402	Headwaters Nashua River	MA-WR-56	Sterling 4.3 NW	3.01"
0107000402	Headwaters Nashua River	MA-MD-25	Ayer 0.1 SW	1.77"
0107000403	Squannacook River	MA-MD-47	West Townsend 0.5 W	2.20"
0107000404	Nissitissit River-Nashua River	MA-MD-169	Pepperell 2.1 SSW	2.62"
01070005	Concord			
0107000501	Sudbury River	MA-MD-156	Marlborough 2.8 ENE	1.73"
0107000501	Sudbury River	MA-MD-89	Sudbury 3.6 W	2.14"
0107000501	Sudbury River	MA-MD-107	Framingham 1.7 E	4.04"
0107000502	Concord River	MA-WR-30	Shrewsbury 1.6 NNE	2.53"
0107000502	Concord River	MA-WR-28	Berlin 1.3 WSW	2.14"
0107000502	Concord River	MA-WR-18	Northborough 0.6 SSE	3.18"
0107000502	Concord River	MA-WR-42	Northborough 2.3 N	2.47"
0107000502	Concord River	MA-WR-77	Berlin 2.0 S	2.44"



0107000502	Concord River	MA-MD-115	Hudson 1.4 NW	2.31"
0107000502	Concord River	MA-WR-55	Harvard 2.1 S	2.79"
0107000502	Concord River	MA-MD-12	Acton 1.3 SW	1.85"
0107000502	Concord River	MA-MD-166	Acton 0.5 SW	1.58"
0107000502	Concord River	MA-MD-51	Maynard 0.7 ESE	4.15"
0107000502	Concord River	MA-MD-62	Chelmsford 1.2 E	1.19"
01070006	Merrimack River			
0107000612	Stony Brook - Merrimack River	MA-MD-104	Littleton 2.8 NNW	0.85"
0107000613	Shawsheen River	MA-MD-52	Lexington 0.6 SW	5.10"
0107000613	Shawsheen River	MA-ES-48	Andover 0.6 E	1.40"
0107000614	Powwow River - Merrimack River	MA-ES-66	North Andover 0.3 NW	1.59"
0107000614	Powwow River - Merrimack River	MA-ES-20	Haverhill 0.7 N	2.17"
0107000614	Powwow River - Merrimack River	MA-ES-4	Groveland 0.5 WSW	2.00"
0107000614	Powwow River - Merrimack River	MA-ES-61	Amesbury 2.6 WSW	2.76"
0107000614	Powwow River - Merrimack River	MA-ES-59	Amesbury 1.2 N	2.43"
0107000614	Powwow River - Merrimack River	MA-ES-64	Newburyport 0.4 NNW	1.91"
0107000614	Powwow River - Merrimack River	MA-ES-56	Newburyport 1.0 ESE	1.77"
01080201	Middle Connecticut			
0108020106	Manhan River - Connecticut River	MA-HS-2	Westhampton 1.8 SW	2.92"
0108020106	Manhan River - Connecticut River	MA-HS-26	Easthampton 0.5 SW	3.07"
0108020106	Manhan River - Connecticut River	MA-HS-12	Northampton 0.4 S	3.05"
0108020106	Manhan River - Connecticut River	MA-FR-12	Sunderland 1.3 SE	1.70"
0108020107	Batchelor Brook - Connecticut River	MA-HD-22	Holyoke 1.0 ENE	1.88"
0108020107	Batchelor Brook - Connecticut River	MA-HD-13	Springfield 4.1 W	1.62"
01080202	Miller			
0108020201	Upper Millers River	NH-CH-20	Rindge 3.2 ESE	1.02"
0108020202	Lower Millers River	MA-WR-40	Gardner 1.4 SSW	3.80"
01080203	Deerfield			
0108020303	North River	MA-FR-31	Colrain 3.7 WNW	1.62"
0108020303	North River	MA-FR-29	Colrain 0.8 WNW	1.39"
0108020305	Lower Deerfield River	MA-FR-17	Buckland 1.8 ESE	2.01"
0108020305	Lower Deerfield River	MA-FR-13	Conway 2.9 NW	1.91"
0108020305	Lower Deerfield River	MA-FR-25	Conway 2.7 NW	1.90"
0108020305	Lower Deerfield River	MA-FR-10	Conway 0.9 SW	1.73"
01080204	Chicopee			
0108020401	Swift River	MA-FR-8	New Salem 3.1 S	1.56"
0108020402	Ware River	MA-WR-54	Barre 1.4 NNE	3.41"
0108020403	Quaboag River	MA-WR-75	Warren 2.4 WSW	3.58"
0108020404	Chicopee River	MA-HD-25	Ludlow 2.3 SW	3.12"
01080205	Lower Connecticut			
0108020501	Mill River - Connecticut River	CT-HR-82	Suffield 0.5 NNE	1.33"

0108020501	Mill River - Connecticut River	CT-HR-57	Suffield Depot 3.3 NNE	1.57"
0108020501	Mill River - Connecticut River	MA-HD-30	Hampden 2.0 NW	1.41"
0108020502	Scantic River	CT-TL-26	Broad Brook 2.6 ESE	2.14"
0108020502	Scantic River	MA-HD-32	East Longmeadow 2.3 ESE	1.76"
0108020502	Scantic River	CT-TL-15	Central Somers 0.3 N	1.81"
0108020503	Park River	CT-HR-39	Farmington 1.6 SW	2.12"
0108020503	Park River	CT-HR-49	West Hartford 1.1 W	1.21"
0108020503	Park River	CT-HR-11	West Hartford 2.7 SSE	2.00"
0108020503	Park River	CT-HR-53	Hartford 2.0 SW	1.65"
0108020504	Hockanum River	CT-HR-52	Central Manchester 0.8 N	1.29"
0108020504	Hockanum River	CT-HR-100	Manchester 0.4 ENE	1.65"
0108020505	Roaring Brook - Connecticut River	CT-HR-6	Wethersfield 1.2 WSW	2.23"
0108020505	Roaring Brook - Connecticut River	CT-HR-68	Rocky Hill 1.3 E	2.30"
0108020505	Roaring Brook - Connecticut River	CT-HR-22	East Hartford 1.3 E	1.65"
0108020505	Roaring Brook - Connecticut River	CT-HR-7	Central Manchester 2.7 SW	1.89"
0108020506	Mattabesset River	CT-HR-15	Southington 3.0 E	1.84"
0108020506	Mattabesset River	CT-HR-80	Kensington 0.7 WSW	1.71"
0108020506	Mattabesset River	CT-HR-65	Newington 1.9 SSW	2.55"
0108020506	Mattabesset River	CT-MD-25	Middlefield 0.6 SE	1.65"
0108020507	Higganum Creek - Connecticut River	CT-MD-23	Higganum 0.7 N	1.37"
0108020507	Higganum Creek - Connecticut River	CT-MD-26	Higganum 0.8 NE	1.29"
0108020508	Salmon River	CT-MD-22	East Hampton 2.1 N	3.56"
0108020508	Salmon River	CT-TL-29	Hebron 1.6 SW	2.39"
0108020509	Eightmile River - Connecticut River	CT-MD-19	Ivoryton 0.9 WSW	1.60"
0108020509	Eightmile River - Connecticut River	CT-MD-18	Essex Village 0.9 S	1.55"
0108020509	Eightmile River - Connecticut River	CT-NL-44	Old Lyme 0.5 W	1.84"
01080206	Westfield			
0108020603	Outlet Westfield River	MA-HD-31	Westfield 1.6 SSW	1.24"
0108020603	Outlet Westfield River	MA-HD-28	Westfield 2.8 SE	1.24"
0108020603	Outlet Westfield River	MA-HD-29	West Springfield 1.6 SSW	1.45"
01080207	Farmington			
0108020701	Still River	CT-LT-15	Colebrook 1.0 NE	1.98"
0108020702	West Branch Farmington River	MA-BE-4	Becket 5.6 SSW	2.21"
0108020704	Headwaters Farmington River	CT-LT-9	New Hartford Center 3.2 SW	1.63"
0108020704	Headwaters Farmington River	CT-HR-70	Canton 1.5 W	1.53"
0108020704	Headwaters Farmington River	CT-HR-28	North Canton 0.8 SSW	1.45"
0108020705	Salmon Brook	CT-HR-60	North Granby 0.7 N	1.09"
0108020705	Salmon Brook	CT-HR-8	North Granby 1.3 ENE	1.07"
01090001	Charles			
0109000101	Plum Island Sound - Frontal Atlantic Ocean	MA-ES-24	Newburyport 0.8 SW	2.04"
0109000102	Ipswich River	MA-MD-85	Wilmington 2.2 WNW	2.14"

0109000102	Ipswich River	MA-MD-125	Tewksbury 3.6 SSE	1.94"
0109000102	Ipswich River	MA-MD-45	Wilmington 1.5 NE	2.15"
0109000102	Ipswich River	MA-MD-160	Reading 1.2 N	2.47"
0109000102	Ipswich River	MA-ES-58	Middleton 1.4 SSW	1.84"
0109000102	Ipswich River	MA-ES-12	Boxford 2.4 S	1.96"
0109000103	Essex River - Frontal Atlantic Ocean	MA-ES-41	Danvers 0.8 ESE	1.49"
0109000103	Essex River - Frontal Atlantic Ocean	MA-ES-25	Gloucester 4.3 N	2.74"
0109000104	Saugus River - Frontal Broad Sound	MA-MD-81	Wakefield 0.5 NNW	2.24"
0109000104	Saugus River - Frontal Broad Sound	MA-MD-126	Melrose 0.5 NE	2.84"
0109000104	Saugus River - Frontal Broad Sound	MA-ES-45	Nahant 0.4 N	2.76"
0109000104	Saugus River - Frontal Broad Sound	MA-ES-8	Marblehead 0.8 SW	1.62"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-123	Lexington 1.3 SE	4.14"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-18	Belmont 0.2 ESE	2.79"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-7	Winchester 0.7 SE	2.93"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-44	Medford 1.2 W	2.44"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-11	Cambridge 0.9 NNW	3.12"
0109000105	Mystic River - Frontal Boston Harbor	MA-MD-170	Somerville 0.5 W	3.62"
0109000105	Mystic River - Frontal Boston Harbor	MA-SF-10	Chelsea 0.8 N	2.63"
0109000106	Upper Charles River	MA-WR-1	Milford 2.3 NNW	3.66"
0109000106	Upper Charles River	MA-MD-106	Holliston 2.4 W	3.00"
0109000106	Upper Charles River	MA-MD-55	Holliston 0.7 W	3.64"
0109000106	Upper Charles River	MA-MD-42	Holliston 0.8 S	3.38"
0109000106	Upper Charles River	MA-MD-158	Sherborn 1.1 NW	2.93"
0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-120	Natick 1.9 NNE	3.69"
0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-119	Watertown 1.1 W	4.00"
0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-151	Cambridge 0.9 SSE	3.57"
0109000108	Neponset River - Frontal Boston Harbor	MA-NF-1	Norwood 1.3 NW	6.88"
0109000108	Neponset River - Frontal Boston Harbor	MA-NF-54	Quincy 1.2 W	3.95"
0109000109	Whitmans Pond - Frontal Boston Harbor	MA-NF-32	Quincy 1.8 WSW	4.35"
0109000109	Whitmans Pond - Frontal Boston Harbor	MA-PL-36	Hingham 0.8 ESE	2.08"
01090002	Cape Cod			
0109000201	North River - Frontal Massachusetts Bay	MA-PL-5	Kingston 3.3 WNW	4.07"
0109000201	North River - Frontal Massachusetts Bay	MA-PL-37	Scituate 1.2 NW	2.51"
0109000201	North River - Frontal Massachusetts Bay	MA-PL-47	Plymouth 1.1 NNW	2.39"
0109000201	North River - Frontal Massachusetts Bay	MA-PL-2	Sagamore Beach 1.0 NW	1.55"
0109000202	Cape Cod	MA-BA-2	Falmouth 3.1 NNW	2.04"
0109000202	Cape Cod	MA-BA-57	Falmouth 5.7 N	1.93"
0109000202	Cape Cod	MA-BA-14	North Falmouth 0.5 ENE	1.47"
0109000202	Cape Cod	MA-BA-13	Falmouth 0.6 NNW	2.16"
0109000202	Cape Cod	MA-BA-50	Falmouth 5.4 NNE	1.64"
0109000202	Cape Cod	MA-BA-17	East Falmouth 1.2 WNW	1.88"

0109000202	Cape Cod	MA-BA-19	East Falmouth 0.7 NW	2.01"
0109000202	Cape Cod	MA-BA-3	Falmouth 3.0 E	1.89"
0109000202	Cape Cod	MA-BA-11	East Falmouth 1.4 ESE	2.09"
0109000202	Cape Cod	MA-BA-47	Mashpee 2.4 WSW	1.86"
0109000202	Cape Cod	MA-BA-45	Sandwich 0.9 NNE	1.80"
0109000202	Cape Cod	MA-BA-79	Mashpee 0.8 SSW	1.68"
0109000202	Cape Cod	MA-BA-78	Mashpee 4.6 S	1.66"
0109000202	Cape Cod	MA-BA-10	East Sandwich 2.3 SE	2.17"
0109000202	Cape Cod	MA-BA-59	Barnstable 3.6 W	1.78"
0109000202	Cape Cod	MA-BA-76	Barnstable 0.7 NE	1.61"
0109000202	Cape Cod	MA-BA-22	Yarmouth 0.9 NNW	2.07"
0109000202	Cape Cod	MA-BA-72	Yarmouth 2.0 S	1.21"
0109000202	Cape Cod	MA-BA-1	Yarmouth 2.3 SSE	1.47"
0109000202	Cape Cod	MA-BA-80	Brewster 1.4 W	1.89"
0109000202	Cape Cod	MA-BA-52	Truro 0.8 E	2.22"
0109000202	Cape Cod	MA-BA-36	Harwich 2.6 ENE	2.03"
0109000202	Cape Cod	MA-BA-68	Eastham 1.9 WSW	2.28"
0109000202	Cape Cod	MA-BA-42	Orleans 1.8 S	1.80"
0109000202	Cape Cod	MA-BA-51	Orleans 3.0 S	1.51"
0109000202	Cape Cod	MA-BA-12	Orleans 1.1 E	1.76"
0109000202	Cape Cod	MA-BA-30	Eastham 0.6 SW	2.13"
0109000202	Cape Cod	MA-BA-43	Chatham 0.4 WSW	1.69"
0109000203	Mattapoisett River - Frontal Buzzards Bay	MA-PL-52	Plymouth 10.6 SSE	1.81"
0109000203	Mattapoisett River - Frontal Buzzards Bay	MA-BA-64	Sandwich 1.5 SSE	1.78"
0109000204	Paskamanset River - Frontal Buzzards Bay	MA-BR-14	Dartmouth 2.5 SSW	1.64"
0109000204	Paskamanset River - Frontal Buzzards Bay	MA-BR-52	New Bedford 4.3 N	2.41"
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-5	Little Compton 1.7 NW	1.71"
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-17	Tiverton 4.4 SSE	2.63"
0109000205	Sakonnet Point - Frontal Rhode Island Sound	RI-NW-7	Little Compton 0.6 E	1.70"
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-5	West Tisbury 2.9 N	1.81"
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-2	Vineyard Haven 0.8 WSW	1.70"
0109000206	Elizabeth Islands - Marthas Vineyard	MA-DK-18	Oak Bluffs 0.1 SW	2.23"
0109000207	Nantucket Island	MA-NT-7	Nantucket 0.2 NNW	2.50"
01090003	Blackstone			
0109000301	Upper Blackstone River	MA-WR-41	Auburn 2.6 SW	3.10"
0109000301	Upper Blackstone River	MA-WR-43	Leicester 2.4 ESE	2.64"
0109000301	Upper Blackstone River	MA-WR-81	Worcester 1.6 SE	2.88"
0109000301	Upper Blackstone River	MA-WR-69	Northbridge 1.7 WNW	3.56"
0109000302	Lower Blackstone River	RI-PR-50	Harrisville 1.2 SSE	4.64"
0109000302	Lower Blackstone River	RI-PR-28	North Smithfield 0.7 SE	4.03"
0109000302	Lower Blackstone River	RI-PR-45	Manville 0.4 WSW	3.67"

0109000302	Lower Blackstone River	MA-NF-26	Bellingham 2.4 S	7.05"
0109000302	Lower Blackstone River	RI-PR-55	Cumberland Hill 3.6 NNE	5.07"
01090004	Narragansett			
0109000401	Upper Taunton River	MA-NF-31	Stoughton 1.2 E	4.64"
0109000401	Upper Taunton River	MA-PL-22	East Bridgewater 0.3 WSW	4.38"
0109000401	Upper Taunton River	MA-PL-15	Abington 1.2 NNE	2.54"
0109000401	Upper Taunton River	MA-PL-23	Pembroke 2.8 SW	3.09"
0109000402	Middle Taunton River	MA-PL-31	Bridgewater 1.8 SE	4.12"
0109000402	Middle Taunton River	MA-PL-17	Plympton 0.9 NNE	3.53"
0109000403	Threemile River	MA-NF-19	Foxborough 1.8 SSW	4.19"
0109000403	Threemile River	MA-BR-55	NWS Boston/Norton 2.5 ESE	3.69"
0109000404	Ten Mile River	MA-NF-58	Plainville 0.6 NNW	3.19"
0109000404	Ten Mile River	MA-BR-23	Attleboro 0.9 ENE	2.78"
0109000405	Woonasquatucket River-Moshassuck River	RI-PR-33	Greenville 0.7 NNW	2.86"
0109000405	Woonasquatucket River-Moshassuck River	RI-PR-51	North Smithfield 0.6 S	3.87"
0109000405	Woonasquatucket River-Moshassuck River	RI-PR-82	Providence 1.6 NNW	2.63"
0109000405	Woonasquatucket River-Moshassuck River	RI-PR-53	Providence 1.7 N	2.74"
0109000406	Pawtuxet River	RI-KN-21	Coventry 1.9 NE	1.34"
0109000406	Pawtuxet River	RI-PR-57	Cranston 1.2 SSE	1.73"
0109000407	Palmer River	MA-BR-2	Rehoboth 2.1 N	2.66"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-61	Mansfield 2.4 ENE	4.45"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-3	Norton 1.8 NNE	3.43"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-16	Somerset 0.4 SSE	2.47"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-58	Dighton 3.3 NNW	3.69"
0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-8	Dighton 1.1 WSW	3.67"
0109000409	Narragansett Bay	RI-KN-17	East Greenwich 1.2 NNE	2.31"
0109000409	Narragansett Bay	RI-WS-54	North Kingstown 2.7 WSW	2.85"
0109000409	Narragansett Bay	RI-WS-50	North Kingstown 3.1 NW	3.19"
0109000409	Narragansett Bay	RI-WS-31	Kingston 7.5 NNE	2.73"
0109000409	Narragansett Bay	RI-WS-61	North Kingstown 0.5 NNW	2.65"
0109000409	Narragansett Bay	RI-KN-15	Warwick 4.3 SSW	3.49"
0109000409	Narragansett Bay	RI-KN-2	East Greenwich 2.3 ESE	3.20"
0109000409	Narragansett Bay	RI-KN-23	Warwick 3.2 NNE	2.18"
0109000409	Narragansett Bay	RI-KN-31	Warwick 0.8 ENE	2.82"
0109000409	Narragansett Bay	RI-PR-67	Providence 1.6 NE	2.75"
0109000409	Narragansett Bay	RI-PR-84	Providence 2.7 NNE	2.34"
0109000409	Narragansett Bay	RI-NW-18	Jamestown 0.3 SSE	1.72"
0109000409	Narragansett Bay	RI-PR-77	Riverside 0.8 SE	2.34"
0109000409	Narragansett Bay	RI-BR-5	Barrington 1.3 WNW	2.50"
0109000409	Narragansett Bay	RI-NW-27	Newport 1.3 SW	1.18"
0109000409	Narragansett Bay	RI-NW-4	Middletown 1.1 SW	1.29"



0109000409	Narragansett Bay	RI-NW-16	Portsmouth 1.3 S	1.99"
0109000409	Narragansett Bay	MA-BR-63	Swansea 2.1 W	3.22"
0109000409	Narragansett Bay	RI-NW-11	Tiverton 0.8 SSW	2.38"
0109000409	Narragansett Bay	RI-NW-20	Tiverton 1.0 SSW	2.46"
0109000409	Narragansett Bay	RI-NW-23	Tiverton 3.6 S	2.12"
01090005	Pawcatuck-Wood			
0109000501	Wood River	RI-WS-1	Hope Valley 3.7 S	2.53"
0109000502	Upper Pawcatuck River	RI-WS-46	Westerly 3.4 E	3.75"
0109000502	Upper Pawcatuck River	RI-WS-42	Richmond 4.6 NNE	1.78"
0109000502	Upper Pawcatuck River	RI-WS-45	Charlestown 4.7 NNE	2.06"
0109000502	Upper Pawcatuck River	RI-WS-37	Kingston 2.4 SW	1.62"
0109000503	Lower Pawcatuck River	CT-NL-40	Pawcatuck 1.8 SSE	3.46"
0109000503	Lower Pawcatuck River	RI-WS-47	Westerly 0.8 WNW	3.65"
0109000504	Frontal Block Island Sound	RI-WS-36	Charlestown 3.0 WSW	3.59"
0109000504	Frontal Block Island Sound	RI-WS-58	Kingston 0.3 SW	1.71"
0109000504	Frontal Block Island Sound	RI-WS-55	Wakefield 0.8 ENE	1.71"
01100001	Quinebaug			
0110000101	Upper Quinebaug River	MA-WR-6	Southbridge 0.6 E	2.32"
0110000102	French River	MA-WR-68	Oxford 0.9 SSW	3.06"
0110000103	Fivemile River	CT-WN-6	Dayville 2.0 ENE	1.83"
0110000103	Fivemile River	CT-WN-4	East Killingly 1.3 SW	1.69"
0110000105	Moosup River	CT-WN-8	Moosup 1.7 NE	2.42"
0110000106	Pachaug River	CT-NL-21	Griswold 0.9 N	2.39"
01100002	Shetucket			
0110000201	Willimantic River	CT-TL-18	Hebron 5.3 NW	1.73"
0110000201	Willimantic River	CT-TL-32	Coventry 2.3 N	1.71"
0110000201	Willimantic River	CT-TL-7	Columbia 2.2 SSW	3.31"
0110000201	Willimantic River	CT-TL-24	Stafford Springs 0.8 NE	3.11"
0110000201	Willimantic River	CT-TL-2	Staffordville 0.4 NNW	4.41"
0110000202	Natchaug River	CT-TL-27	Willington 2.7 SE	2.35"
0110000202	Natchaug River	CT-TL-30	Mansfield Center 2.7 NE	2.87"
0110000202	Natchaug River	CT-WN-12	Eastford 2.0 W	2.18"
0110000203	Shetucket River	CT-WN-10	South Windham 1.3 NNE	3.92"
0110000203	Shetucket River	CT-NL-10	Norwich 2.5 NNE	2.11"
01100003	Thames			
0110000302	Thames River-Frontal New London Harbor	CT-NL-5	Oakdale 2.6 WNW	2.84"
0110000302	Thames River-Frontal New London Harbor	CT-NL-6	New London 1.0 NNW	2.34"
0110000302	Thames River-Frontal New London Harbor	CT-NL-8	Uncasville-Oxoboxo Valley 1.6 ENE	2.30"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-38	Old Lyme 3.4 ESE	3.97"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-29	East Lyme 0.5 SW	5.48"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-32	Niantic 1.1 SW	3.09"

0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-22	Central Waterford 2.7 SSW	2.60"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-46	Mystic 3.4 NW	2.05"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-37	Mystic 1.6 W	2.43"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-19	Mystic 0.9 W	2.69"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-24	Stonington 1.4 NNW	2.50"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-18	Stonington 0.5 NNE	2.64"
01100004	Quinnipiac			
0110000401	Quinnipiac River	CT-HR-55	Southington 1.7 WNW	2.15"
0110000401	Quinnipiac River	CT-HR-83	Plainville 1.7 SW	1.99"
0110000401	Quinnipiac River	CT-HR-23	Southington 0.9 SSE	1.78"
0110000401	Quinnipiac River	CT-HR-76	Southington 1.0 ENE	1.55"
0110000401	Quinnipiac River	CT-NH-44	Wallingford Center 1.9 WNW	2.56"
0110000401	Quinnipiac River	CT-NH-43	Wallingford Center 3.3 NNW	2.88"
0110000401	Quinnipiac River	CT-NH-42	Wallingford Center 1.1 N	2.43"
0110000401	Quinnipiac River	CT-NH-72	Northford 0.8 SW	3.26"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-60	Branford Center 1.9 SSW	2.01"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-56	Guilford Center 2.7 WSW	1.53"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-41	Madison Center 1.6 W	1.41"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-NH-50	Madison Center 4.1 N	1.60"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-27	Clinton 3.7 N	1.59"
0110000403	Mill River - Frontal Long Island Sound	CT-NH-39	West Haven 0.8 W	2.44"
01100005	Housatonic			
0110000501	Headwaters Housatonic River	MA-BE-11	Great Barrington 3.0 N	3.10"
0110000501	Headwaters Housatonic River	MA-BE-3	Stockbridge .2 NNE	3.30"
0110000501	Headwaters Housatonic River	MA-BE-20	Lee 3.7 SE	3.09"
0110000502	Williams River - Housatonic River	MA-BE-23	Sheffield 1.6 NW	3.05"
0110000503	Konkapot River-Housatonic River	CT-LT-28	Canaan 4.2 ESE	2.40"
0110000504	Macedonia Brook - Housatonic River	CT-LT-20	Warren 2.4 WNW	1.95"
0110000506	Candlewood Lake-Housatonic River	CT-LT-37	New Milford 3.1 WNW	2.03"
0110000506	Candlewood Lake-Housatonic River	CT-LT-22	New Milford 5.3 SSW	1.60"
0110000508	Still River - Housatonic River	CT-FR-43	Bethel 0.5 E	2.25"
0110000508	Still River - Housatonic River	CT-FR-41	Bethel 3.5 NNE	2.37"
0110000508	Still River - Housatonic River	CT-FR-9	Brookfield 3.3 SSE	2.33"
0110000509	Pomperaug River	CT-LT-34	Woodbury Center 1.5 SSW	3.09"
0110000510	Eightmile Brook - Housatonic River	CT-FR-65	Newtown 4.6 SE	1.77"
0110000511	Headwaters Naugatuck River	CT-LT-7	Litchfield 2.3 NNE	1.93"
0110000512	Outlet Naugatuck River	CT-NH-47	Seymour 1.5 NE	2.71"
0110000512	Outlet Naugatuck River	CT-NH-45	Naugatuck 1.7 NNE	4.31"
0110000512	Outlet Naugatuck River	CT-NH-22	Prospect 0.5 SW	2.88"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-23	Shelton 1.3 W	1.93"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-46	Stratford 0.2 ESE	1.92"

0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-55	Shelton 2.7 SSE	2.26"
01100006	Saugatuck			
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-58	Ridgefield 3.6 N	2.40"
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-64	Bethel 4.5 SSE	2.37"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-59	New Canaan 3.8 N	1.30"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-29	Ridgefield 1.9 SSE	2.46"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-63	Wilton 1.9 NW	1.90"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-3	New Canaan 1.9 ENE	1.34"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-25	Norwalk 2.9 NNW	1.14"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-20	Westport 2.5 ENE	1.46"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-68	Fairfield 1.1 SSE	1.21"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-60	Fairfield 1.5 NE	1.61"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-32	Monroe 0.8 W	2.47"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-70	Bridgeport 2.9 NNW	2.12"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-81	Bridgeport 1.2 NNW	1.52"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-67	Trumbull 1.2 S	1.73"
0110000604	Mianus River-Rippowam River	CT-FR-39	Stamford 4.2 S	1.90"
0110000604	Mianus River-Rippowam River	CT-FR-35	Darien 1.8 ENE	1.85"
02020003	Hudson-Hoosic			
0202000306	Upper Hoosic River	MA-BE-21	Cheshire 0.5 NNW	2.91"
02020006	Middle Hudson			
0202000603	Wynants Kill - Hudson River	NY-AB-21	NWS Albany	1.83"
02030203	Long Island Sound			
0203020300	Long Island Sound	NY-SF-114	Fishers Island 0.5 NE	3.09"

**Single Month Records:** Like a broken record, we keep breaking our area's single month records. Congratulations to all!!

- ✓ Reporting Observers: 445
- ✓ Daily Reports per day: 379
- ✓ Condition Monitoring Reports: 102
- ✓ Over 300 stations in the list above.

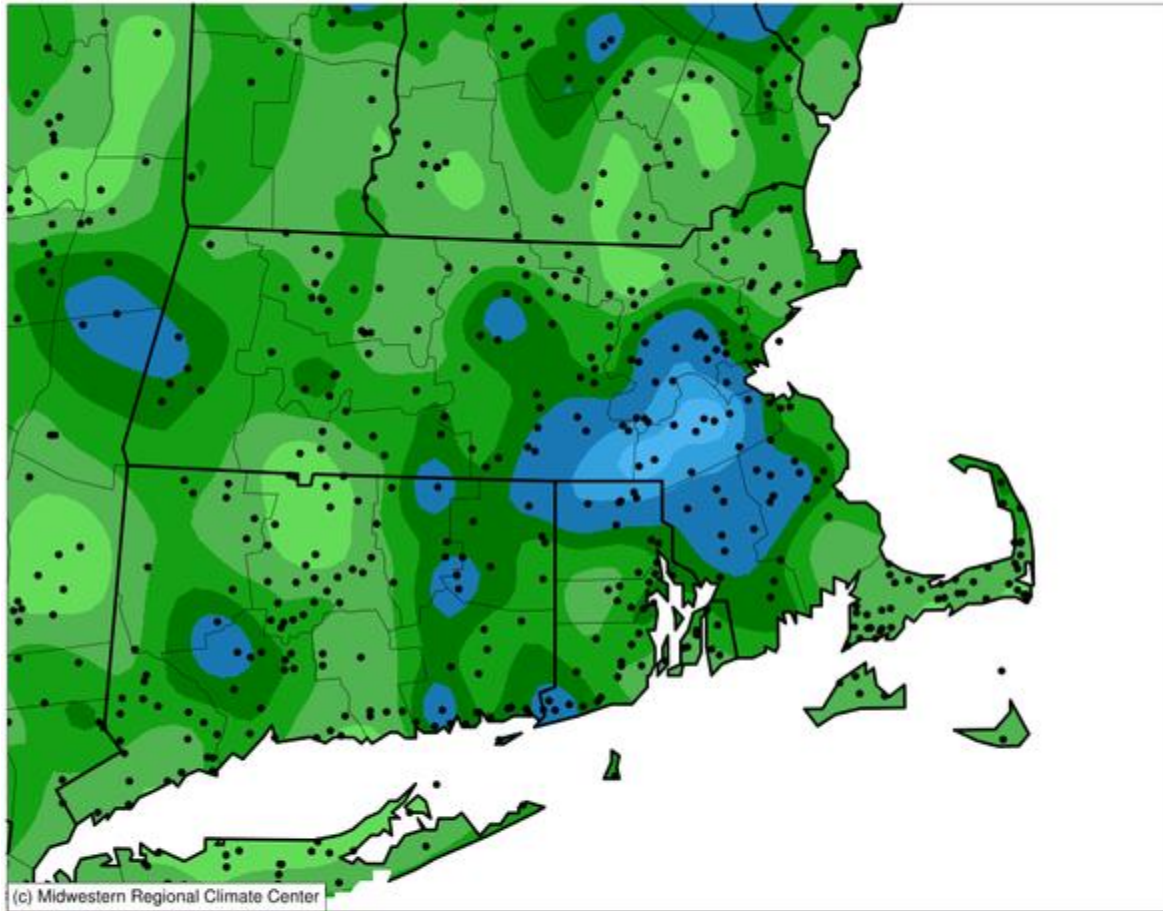
And leading the entire network with:

- ✓ The highest % of stations that report all days.
- ✓ The highest % of snow depth reports.

Blue colors are over 3". Norfolk County MA has the area of over 5" A dry month for much of us. The variable nature of precipitation is there to see during these summer months.

### Accumulated Precipitation (in)

June 01, 2020 to June 30, 2020



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: 7/8/2020 8:59:34 PM CDT

**“We do not live at the airport”**

December was wet. Not much snow or rain this winter. March and April may have been rainy, but the totals were not that high. May and June have been dry. Add it all up, and these past 6 months have been drier than normal. We could use plenty of rain to make up for the shortfall.

2.42” was the average of these stations and our CoCoRaHS stations.

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

Location	Station ID	June 2020 Precip	June departure from normal	April-May-June Precip	3 month departure from normal	Jan-June Precip	6 month departure from normal	Jul-June Precip	12 month departure from normal
White Plains NY	HPN	1.81"	-2.44"	8.96"	-3.81"	16.46"	-7.67"	43.39"	-5.96"
Danbury CT	DXR	1.90"	-2.58"	8.96"	-4.20"	15.87"	-7.14"	36.90"	-12.97"
New Haven CT	HVN	2.37"	-1.65"	9.03"	-3.60"	17.27"	-5.32"	41.06"	-6.05"
Meriden CT	MMK	3.10"	-0.92"	13.16"	0.53"	23.81"	1.22"	46.94"	-0.17"
Hartford CT	HFD	1.48"	-2.51"	8.12"	-3.64"	16.97"	-3.52"	40.62"	-2.98"
Willimantic CT	IJD	5.22"	1.17"	13.43"	0.96"	21.07"	-2.45"	44.26"	-4.16"
New London CT	GON	2.15"	-1.96"	9.59"	-2.78"	18.32"	-3.96"	44.55"	-1.94"
Westerly RI	WST	3.38"	-0.30"	10.29"	-1.82"	18.05"	-5.36"	45.41"	-1.98"
Newport RI	UUU	1.60"	-2.22"	9.00"	-2.89"	17.16"	-5.97"	38.61"	-7.72"
New Bedford MA	EWB	3.34"	-0.61"	7.36"	-4.78"	12.61"	-12.03"	37.20"	-11.16"
Hyannis MA	HYA	1.48"	-2.07"	9.12"	-2.44"	16.96"	-7.85"	45.01"	-2.68"
Nantucket MA	ACK	1.55"	-1.94"	10.18"	-0.47"	18.07"	-3.47"	38.61"	-5.81"
Marthas Vineyard MA	MVY	1.78"	-1.54"	11.86"	1.39"	20.73"	-1.41"	45.66"	0.50"
Taunton MA	TAN	4.37"	0.74"	12.02"	0.19"	20.65"	-4.52"	45.44"	-4.30"
Plymouth MA	PYM	1.52"	-2.43"	11.26"	-1.02"	19.96"	-5.30"	54.79"	5.64"
Norwood MA	OWD	6.19"	2.24"	15.99"	4.17"	24.33"	1.25"	48.54"	1.48"
Bedford MA	BED	1.69"	-2.23"	7.91"	-3.95"	15.04"	-7.31"	38.58"	-7.13"
Beverly MA	BVY	1.96"	-1.68"	10.32"	-1.49"	18.99"	-3.74"	40.50"	-5.68"
Lawrence MA	LWM	2.31"	-1.76"	9.62"	-2.03"	17.63"	-2.86"	42.09"	-1.07"
Fitchburg MA	FIT	1.93"	-2.32"	9.18"	-3.25"	17.25"	-5.38"	32.27"	-14.87"
Orange MA	ORE	1.10"	-3.33"	7.95"	-3.64"	15.90"	-3.32"	39.08"	-3.47"
Westfield MA	BAF	1.54"	-2.81"	8.20"	-4.96"	16.62"	-5.81"	39.01"	-9.38"
North Adams MA	AQW	1.68"	-3.28"	7.07"	-5.83"	13.44"	-6.66"	34.70"	-11.91"



## **Rulers of the Snow**

We are the Rulers of the Snow. We define where the snow is and where it is not.

These are the group of stations that reported snow fall and snow depth for all days in June 2020. A network leading 76 stations. Even on Marthas Vineyard and on Fishers Island!

Keep making this list even longer. Using the mobile app? Look at the 2<sup>nd</sup> page of the mobile app, and fill in those snow values. Make a snow fall and snow depth measurement with every Daily Report, if you can safely do so, ***all year round.***

Station	Name	Jun 2020 Snowfall	Station	Name	Jun 2020 Snowfall
MA-BE-21	Cheshire 0.5 NNW	0.0"	RI-WS-31	Kingston 7.5 NNE	0.0"
CT-LT-15	Colebrook 1.0 NE	0.0"	RI-WS-37	Kingston 2.4 SW	0.0"
CT-LT-22	New Milford 5.3 SSW	0.0"	RI-WS-42	Richmond 4.6 NNE	0.0"
CT-LT-34	Woodbury Center 1.5 SSW	0.0"	RI-WS-46	Westerly 3.4 E	0.0"
CT-LT-9	New Hartford Center 3.2 SW	0.0"	RI-WS-47	Westerly 0.8 WNW	0.0"
CT-FR-25	Norwalk 2.9 NNW	0.0"	RI-WS-55	Wakefield 0.8 ENE	0.0"
CT-FR-3	New Canaan 1.9 ENE	0.0"	RI-NW-11	Tiverton 0.8 SSW	0.0"
CT-FR-9	Brookfield 3.3 SSE	0.0"	RI-NW-7	Little Compton 0.6 E	0.0"
CT-NH-43	Wallingford Center 3.3 NNW	0.0"	MA-BR-55	NWS Boston/Norton 2.5 ESE	0.0"
MA-FR-12	Sunderland 1.3 SE	0.0"	MA-BR-61	Mansfield 2.4 ENE	0.0"
MA-FR-13	Conway 2.9 NW	0.0"	MA-MD-119	Watertown 1.1 W	0.0"
MA-FR-17	Buckland 1.8 ESE	0.0"	MA-MD-12	Acton 1.3 SW	0.0"
MA-FR-31	Colrain 3.7 WNW	0.0"	MA-MD-126	Melrose 0.5 NE	0.0"
MA-HS-26	Easthampton 0.5 SW	0.0"	MA-MD-156	Marlborough 2.8 ENE	0.0"
MA-HD-25	Ludlow 2.3 SW	0.0"	MA-MD-44	Medford 1.2 W	0.0"
CT-HR-11	West Hartford 2.7 SSE	0.0"	MA-MD-47	West Townsend 0.5 W	0.0"
CT-HR-22	East Hartford 1.3 E	0.0"	MA-MD-51	Maynard 0.7 ESE	0.0"
CT-HR-57	Suffield Depot 3.3 NNE	0.0"	MA-MD-7	Winchester 0.7 SE	0.0"
CT-HR-60	North Granby 0.7 N	0.0"	MA-MD-85	Wilmington 2.2 WNW	0.0"
CT-HR-8	North Granby 1.3 ENE	0.0"	MA-ES-12	Boxford 2.4 S	0.0"
CT-TL-18	Hebron 5.3 NW	0.0"	MA-ES-4	Groveland 0.5 WSW	0.0"

CT-TL-2	Staffordville 0.4 NNW	0.0"	MA-ES-41	Danvers 0.8 ESE	0.0"
CT-TL-27	Willington 2.7 SE	0.0"	MA-ES-48	Andover 0.6 E	0.0"
CT-MD-23	Higganum 0.7 N	0.0"	MA-NF-1	Norwood 1.3 NW	0.0"
MA-WR-54	Barre 1.4 NNE	0.0"	MA-NF-54	Quincy 1.2 W	0.0"
MA-WR-75	Warren 2.4 WSW	0.0"	MA-NF-58	Plainville 0.6 NNW	0.0"
MA-WR-8	Fitchburg 1.6 SSW	0.0"	MA-PL-15	Abington 1.2 NNE	0.0"
CT-WN-10	South Windham 1.3 NNE	0.0"	MA-PL-36	Hingham 0.8 ESE	0.0"
CT-WN-8	Moosup 1.7 NE	0.0"	MA-BA-12	Orleans 1.1 E	0.0"
CT-NL-10	Norwich 2.5 NNE	0.0"	MA-BA-2	Falmouth 3.1 NNW	0.0"
CT-NL-21	Griswold 0.9 N	0.0"	MA-BA-3	Falmouth 3.0 E	0.0"
CT-NL-29	East Lyme 0.5 SW	0.0"	MA-BA-47	Mashpee 2.4 WSW	0.0"
CT-NL-46	Mystic 3.4 NW	0.0"	MA-BA-50	Falmouth 5.4 NNE	0.0"
CT-NL-6	New London 1.0 NNW	0.0"	MA-BA-57	Falmouth 5.7 N	0.0"
RI-PR-28	North Smithfield 0.7 SE	0.0"	MA-BA-72	Yarmouth 2.0 S	0.0"
RI-PR-33	Greenville 0.7 NNW	0.0"	MA-BA-76	Barnstable 0.7 NE	0.0"
RI-PR-45	Manville 0.4 WSW	0.0"	MA-DK-2	Vineyard Haven 0.8 WSW	0.0"
RI-PR-51	North Smithfield 0.6 S	0.0"	NY-SF-114	Fishers Island 0.5 NE	0.0"
RI-KN-2	East Greenwich 2.3 ESE	0.0"			

June 2020 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.

379 Reports per Day was our record reporting average for June. Dry for the last two weeks of June, and then the rains came for the last 3 days of the month.

June 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 381	2 375	3 387	4 392	5 397	6 390
7 386	8 370	9 379	10 375	11 380	12 397	13 371
14 365	15 368	16 370	17 374	18 374	19 368	20 364
21 362	22 365	23 368	24 373	25 375	26 367	27 373
28 406	29 402	30 402				

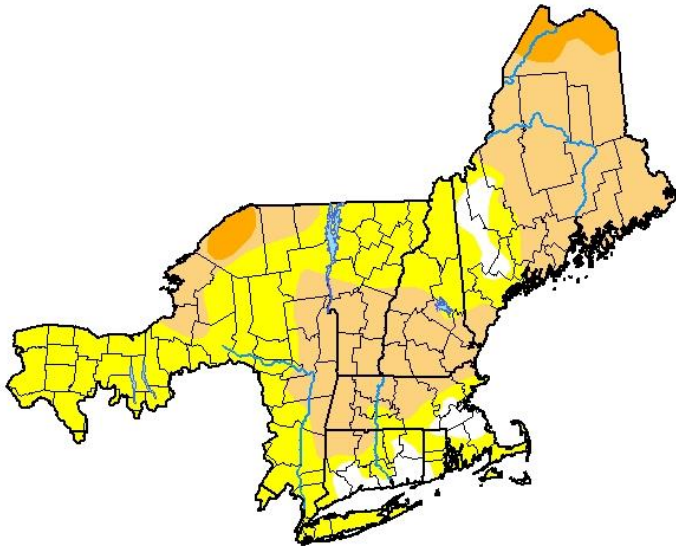
D0 & D1 has grown in our area. It looks like someone else saw those reports of heavy rain in Naugatuck, East Lyme and Old Lyme and from Harrisville to Norwood.

Keep monitoring and reporting Conditions where you are.

Every drop counts and zeros do too!

## U.S. Drought Monitor Northeast RFC

**July 7, 2020**  
(Released Thursday, Jul. 9, 2020)  
Valid 8 a.m. EDT



*Drought Conditions (Percent Area)*

	None	D0	D1	D2	D3	D4
<b>Current</b>	5.52	45.23	45.30	3.95	0.00	0.00
<b>Last Week</b> <small>06-30-2020</small>	17.81	54.22	27.98	0.00	0.00	0.00
<b>3 Months Ago</b> <small>04-07-2020</small>	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> <small>12-31-2019</small>	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> <small>10-01-2019</small>	66.91	33.09	0.00	0.00	0.00	0.00
<b>One Year Ago</b> <small>07-09-2019</small>	100.00	0.00	0.00	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:*

David Miskus  
NOAA/NWS/NCEP/CPC



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

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

## Wrap up



CREEKSIDE PARK - FORT COLLINS CO

July 28<sup>th</sup> will mark the 23<sup>rd</sup> year since the Spring Creek Flood in Fort Collins Colorado, the significant event that gave CoCoRaHS its start.

Yes, the water was that high.

Over 14” of rain fell on the hillslopes west of town. The raging torrent of water flowed east to this park, causing a loss of life and property.

We submit Significant Weather Reports, because our ears and eyes are a valuable part of the weather warning process. We can and do provide the ground truth in real time. Earlier you saw that it only takes a minute for that report to be received.

Whether you are new or long standing with our network, please take the 2 minutes to review the CoCoRaHS story [video](#).

We believe that precipitation is important and highly variable. We use low cost tools and report through the internet.

This Newsletter concludes the 5<sup>th</sup> year of Monthly Newsletters. On we go to the 6<sup>th</sup> year.

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