Community Collaborative Rain, Hail & Snow Network



March 2020

March has started quietly with warm temperatures and not much rain. March has also started noisily with 69 new signups for our three states. Welcome to all of those that have recently joined. You have joined a fantastic citizen science project, and we are pleased to have you.

If this is your very first Newsletter, we strive to have something for every reading and visual style. Words, tables of numbers, pictures, calendar, maps, and listings of your stations.

Joe leads off with a message about recruiting. More observer tips as we transition from winter to spring. Plenty about your reports, as we continue to be pleased with the snow fall and snow depth reporting. And there still is snow on the ground, reported from Plainfield MA.

A few observers crossing over 3000 and 4000 Daily Reports. A longer list of observers crossing over 1000 Daily Reports. We start off with 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.

4000 Daily Reports

MA-BR-3 Norton 1.8 NNE MA-BA-3 Falmouth 3.0 E

3000 Daily Reports

MA-BA-19 East Falmouth 0.7 NW

1000 Daily Reports

MA-NF-31	Stoughton 1.2 E
MA-MD-89	Sudbury 3.6 W
RI-BR-5	Barrington 1.3 WNW
CT-LT-18	New Hartford Center 1.5 N
CT-MD-11	Westbrook Center 1.5 NE
MA-MD-81	Wakefield 0.5 NNW
CT-HR-39	Farmington 1.6 SW
MA-MD-96	Lexington 0.3 NE
MA-NF-32	Quincy 1.8 WSW

Recruiting

"March Madness" has really taken off in our three states. And no, I'm not talking about college basketball! 69 new observers have joined CoCoRaHS in southern New England this month and 76 new observers this year. Welcome to our network!

Rhode Island is leading the way in the "Per Capita" count, which is the number of new observers per million residents. This helps smaller states in the Union compete with those that have a significantly larger population. If Rhode Island can hold on and continue to add new observers, the Ocean State will be one of the two recipients of the prestigious "CoCoRaHS Cup!"

Our recruiting effort involved sending a press release to newspapers and TV meteorologists as well as having our National Weather Service offices help out by posting on social media and placing a link on their web pages. But we also could use your help! Spread the word about CoCoRaHS to family, friends, and neighbors. This really isn't about winning the cup - it's about increasing the number of reliable observations in Southern New England to help provide better mapping of precipitation. Each year we lose a number of observers for a variety of reasons so it's important we keep our numbers strong. We can use all the help we can get!



Nolan Doesken poses with the "CoCoRaHS Cup"

Observer Tips

Significant Weather Reports: As the snow and rains occur this winter, keep our reporting criteria in mind, as we can alert our area NWS Forecast Offices in real time with what is occurring. Reporting criteria are

- 1" or more of rain in 1 hour or less. 2" or more of rain.
- 1" or more of snow in 1 hour or less.
- First 3" of new snowfall. Final total, if 6" or more of snow.
- Flooding.
- Anything you feel is significant.
- ✓ Continue to use mPING in real-time on your GPS enabled mobile device for whatever meteorological phenomena comes our way.

YouTube videos For our new members, and for more seasoned ones



alike, CoCoRaHS HQ has provided videos on <u>YouTube</u>. Please take the time to view these, refresh your memory, and view the animations, tutorials and promotional videos.

Wait it out or Report it. Morning rain or snow occurs during your normal observation time. Yes, we don't want you outside for a measurement with thunder and lightning or slipping on the ice. But no, we don't want a Daily Report of precipitation that is more than 4 hours beyond your normal observation time, even with the observation time changed. In this case, wait until the next day and please submit a multi-day report.

Your report becomes inaccurate because it doesn't include a 24-hour value. As an example, if it's raining at your normal observation time and you wait until on or after 11 AM to report when the rain ends, you would then report 0.00" the next day, but this would not be a true 24-hour total and would not be representative.

Supporting document linked <u>here</u>. If you decide to wait for the end of the precip event beyond 4 hours of your normal observation time, please submit a multi-day report the next day. Thank you.

Hail The "H" is CoCoRaHS is for Hail. The "H" is silent when we say CoCoRaHS, but hail is noisy when it falls. Please do not confuse hail of convective storms with our friend of winter, sleet.

Hail will probably occur with a thunderstorm, or a passing cold front, **NOT** with cold air already in place that causes sleet. Hail tends to occur during our spring months, not our summer and fall months, because the freezing levels in the atmosphere are lower in the spring, than in the summer and fall months.



Make a note of the start and stop times of the Hail. Wait until the hail stops before going outside to measure the Hail stones. A picture of the hail stones, alongside a 12" ruler or loose coins, helps determining the hail stone size.



As the days get longer, the storms get stronger. Should a strong thunderstorm generate hail at your station, please fill out and submit a Hail Report. That Hail is added to our database. Within a minute, that Hail Report will also alert your local NWS Forecast Office, giving them notice what is occurring in your area.

Hail pads are commonly used where Hail is more frequent and larger than what we get here in Southern New England. You are not at all required or asked to have a Hail pad.

We are getting an early start to mentioning Hail because of the warmer weather this month, and to remind us all the significance and potential damage that comes from Hail.

Bottom of the meniscus Another reminder of our routine. Read the



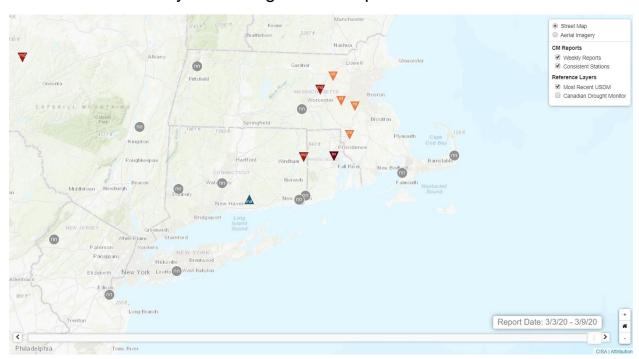
bottom of the meniscus that forms within your inner cylinder. Accuracy matters. From now until mid-June, we often get frequent rains, often no 3 precip free days in a row, so reading the bottom of meniscus is an item to refocus on during these small rains that come in the spring.

Snow-Less February This February will go down as one of the most snow less February's in history in our locale. From the Eastern Region of the National Weather Service (@NWSEastern) a table of snow fall amounts for February from the various climate sites. Sorted from high to low.

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	February 2020 Snowfall	Lowest 10?	Average February Snowfall		February 2020 Snowfall	Lowest 10?	Average February Snowfall		February 2020 Snowfall	Lowest 10?	Average Februar Snowfa
Caribou ME	33.0"		22.2"	Cincinnati OH	4.8"		6.5"	Newark NJ	Trace	#1 (t)	9.3"
yracuse NY	29.8"		25.3"	Huntington WV	4.2"		7.4"	NYC (Central Park)	Trace	#2 (t)	9.2"
Singhamton NY	25.2"		17.1"	Bluefield WV	4.0"		8.5"	NYC (LaGuardia)	Trace	#1 (t)	9.1"
rie PA	24.9"		18.2"	Wilkes-Barre /	3.4"		9.3"	Philadelphia PA	Trace	#1 (t)	8.8"
tochester NY	21.6"		21.5"	Scranton PA	3.4		9.3	Providence RI	Trace	#1 (t)	8.5"
Burlington VT	21.4"		16.4"	Worcester MA	2.5"	#5	15.6"	NYC (J F Kennedy)	Trace	#1 (t)	8.3"
Buffalo NY	20.6"		17.3"	Raleigh NC	2.5"		1.9"	Wilmington DE	Trace	#1 (t)	8.3"
iray ME	13.4"		16.5"	Asheville NC	2.4"		2.2"	Bridgeport CT	Trace	#1 (t)	8.1"
oungstown OH	12.9"		12.8"	Wallops Island VA	2.2"		3.2"	Washington DC	Trace	#2 (t)	7.6"
leveland OH	12.0"		14.9"	Greensboro NC	2.0"		2.4"	(IAD)	Trace	#2 (1)	7.0
Ikins WV	11.9"		18.7"	Blacksburg VA	1.8"		6.4"	Atlantic City NJ	Trace	#3 (t)	6.7"
Concord NH	11.0"		12.3"	Williamsport PA	1.7"	#9	8.8"	Washington DC	Trace	#2 (t)	5.7"
oledo OH	10.6"		9.4"	Danville VA	1.6"		2.1"	(DCA)) Transition	. 228
Akron-Canton OH	10.0"		10.5"	Elizabeth City NC	1.4"	**	1.6"	Roanoke VA	Trace	#3 (t)	5.2"
Bangor ME	9.7"		14.7"	New Bern NC	1.0"		0.8"	Lynchburg VA	Trace	*	4.2"
Dayton OH	9.6"		5.9"	Greenville-	0.8"		1.0"	Salisbury MD	Trace	#8 (t)	3.1"
Beckley WV	9.5"		16.6"	Spartanburg SC				Wilmington NC	Trace		0.3"
ortland ME	9.4"		12.1"	Boston MA	0.5"	#7 (t)	10.9"	Cape Hatteras NC	Trace		0.4"
ittsburgh PA	8.8"		10.2"	Richmond VA	0.5"	**	3.7"	Baltimore MD	0.0"	#1	8.0"
Manchester NH	7.7"		n/a	Hartford CT – BDL	0.4"	#3	11.0"	Islip NY	0.0"	#1	7.1"
libany NY	7.0"		12.2"	Norfolk VA	0.4"	*	2.6"	Columbia SC	0.0"	*	0.5"
Mansfield OH	6.3"		11.4"	Charlotte NC	0.3"		1.2"	Augusta GA	0.0"	*	0.4"
Columbus OH	5.7"		6.1"	Allentown PA	Trace	#1 (t)	11.1"	Charleston SC	0.0"		0.2"
harleston WV	5.1"		9.8"	Harrisburg PA	Trace	#1 (t)	10.5"	Savannah GA	0.0"	200	0.1"

Condition Monitoring Reports: Spring is coming. Warmer weather is 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.



Mar 07 2020 ★ Killingworth 2.6 ESE

Brooks and streams are flowing above normal levels. Ponds and lakes are overflowing. Ground is very wet with standing water in low areas.

CT-MD-21 -- General Awareness

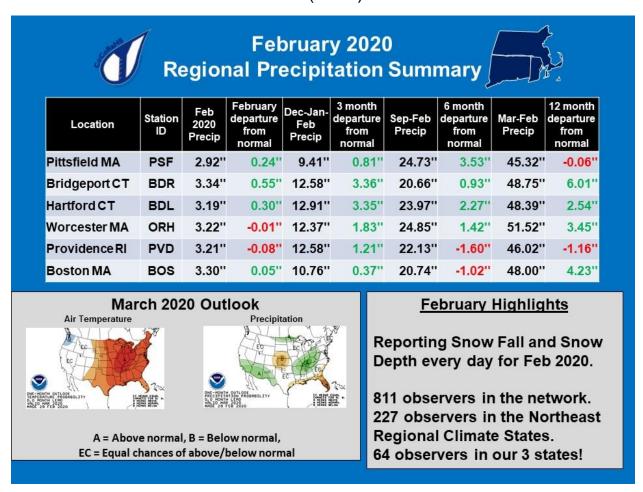


The local ponds are still full, however there has been no snow cover the last two weeks and little rain. Due to the warm weather the ground frost has melted and generally dried out. We had only a day or two of the "mud season" this year so far.

MA-MD-12 -- General Awareness, Plants And Wildlife

Detail and Summary for February 2020

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



February shaped up to be an unusual snow free month for much of the area. Freezing rain and snow before the winds kicked up on the 7th. Snow in the western MA and northwestern CT on the 10^{th} and north of the coastal areas on the 13^{th} . One week of several small precip events, making the map on the next page. Freezing rain on the 18^{th} . Ocean effect snow by Plymouth on the $20^{th} - 21^{st}$. Clear and cold $21^{st} - 22^{nd}$. The lone 1" rain event was reported on the 27^{th} in the Connecticut River valley, western CT, north shore of MA, Cape and the Islands.

Take in the next section with appreciation of your efforts.

From your reports for February 2020

Observers reporting 363

Reported all 29 days 191

Completed by Multi-Day Reports 55

> Missing 1 or 2 reports 43

> > Daily Reports 8813

> > Zero Reports 4263

Non-Zero Reports 4550

Daily Comments 1877

192

Multi-Day Reports

Condition Monitoring Reports 59

Significant Weather Reports

Snowfall Reports 5483

Snow Depth Reports 3670

Total SWE Reports 2040

1.39" in Wallingford CT (CT-NH-44) reported on 2/27 Highest Daily Report 5 Day Precipitation Ending 7AM February 13, 2020 Zero 0.01 1.5 Northeast River Forecast Center 7+ inches

Southern New England CoCoRaHS

A good long list of 246 stations for February. With a minimal amount of snow for February, there were a minimal number of stations excluded for reporting NA precip for a day with precip.

Hopefully, the Groundhog is right, an early Spring will come, and we can focus on the bottom of the meniscus and report our rain amounts.

For the newest of observers, this is a list of stations that did not miss any days of reporting for the month of February, either with Daily Reports or with Multi-Day Reports, and did not overlap a Multi-Day Report across the beginning or the end of the month when precip occurred.

Matavahad	Motorched Nove	Station	Ctation Name	Dunnin
Watershed	Watershed Name	Number	Station Name	Precip
01070004	Nashua			
0107000401	North Nashua River	MA-WR-44	Westminster 0.6 WSW	3.06''
0107000401	North Nashua River	MA-WR-8	Fitchburg 1.6 SSW	3.16"
0107000401	North Nashua River	MA-WR-52	Fitchburg 2.3 N	3.12"
0107000401	North Nashua River	MA-WR-22	Fitchburg 2.0 NNE	3.42"
0107000402	Headwaters Nashua River	MA-WR-56	Sterling 4.3 NW	2.19"
0107000403	Squannacook River	MA-MD-47	West Townsend 0.5 W	4.02"
01070005	Concord			
0107000501	Sudbury River	MA-MD-156	Marlborough 2.8 ENE	3.38"
0107000502	Concord River	MA-WR-30	Shrewsbury 1.6 NNE	3.29"
0107000502	Concord River	MA-WR-28	Berlin 1.3 WSW	3.26"
0107000502	Concord River	MA-WR-18	Northborough 0.6 SSE	3.27"
0107000502	Concord River	MA-WR-42	Northborough 2.3 N	2.97"
0107000502	Concord River	MA-MD-115	Hudson 1.4 NW	2.84"
0107000502	Concord River	MA-WR-55	Harvard 2.1 S	3.08"
0107000502	Concord River	MA-MD-12	Acton 1.3 SW	3.43"
0107000502	Concord River	MA-MD-51	Maynard 0.7 ESE	3.21"
01070006	Merrimack River			
0107000612	Stony Brook - Merrimack River	MA-MD-104	Littleton 2.8 NNW	3.00"
0107000612	Stony Brook - Merrimack River	MA-MD-93	Westford 1.5 SSW	1.67''
0107000613	Shawsheen River	MA-MD-52	Lexington 0.6 SW	2.76''
0107000613	Shawsheen River	MA-ES-48	Andover 0.6 E	3.52"
0107000614	Powwow River - Merrimack River	MA-ES-20	Haverhill 0.7 N	3.37"
0107000614	Powwow River - Merrimack River	MA-ES-4	Groveland 0.5 WSW	3.54"
0107000614	Powwow River - Merrimack River	MA-ES-59	Amesbury 1.2 N	3.83"
0107000614	Powwow River - Merrimack River	MA-ES-56	Newburyport 1.0 ESE	3.15"
01080201	Middle Connecticut			

T. T. T.				
0108020106	Manhan River - Connecticut River	MA-HS-2	Westhampton 1.8 SW	3.57"
0108020106	Manhan River - Connecticut River	MA-HS-8	Williamsburg 1.2 WSW	3.65"
0108020106	Manhan River - Connecticut River	MA-HS-26	Easthampton 0.5 SW	3.41"
0108020106	Manhan River - Connecticut River	MA-HS-21	Northampton 0.6 ESE	3.30"
0108020106	Manhan River - Connecticut River	MA-FR-12	Sunderland 1.3 SE	3.56''
0108020107	Batchelor Brook - Connecticut River	MA-HD-13	Springfield 4.1 W	3.03"
01080202	Miller			
0108020201	Upper Millers River	NH-CH-20	Rindge 3.2 ESE	3.11"
0108020202	Lower Millers River	MA-WR-40	Gardner 1.4 SSW	3.39''
01080203	Deerfield			
0108020303	North River	MA-FR-31	Colrain 3.7 WNW	4.46''
0108020305	Lower Deerfield River	MA-FR-17	Buckland 1.8 ESE	4.21"
0108020305	Lower Deerfield River	MA-FR-13	Conway 2.9 NW	4.01"
0108020305	Lower Deerfield River	MA-FR-25	Conway 2.7 NW	3.91"
0108020305	Lower Deerfield River	MA-FR-10	Conway 0.9 SW	3.83"
01080204	Chicopee			
0108020401	Swift River	MA-FR-8	New Salem 3.1 S	3.46"
0108020402	Ware River	MA-WR-54	Barre 1.4 NNE	3.71"
0108020403	Quaboag River	MA-WR-75	Warren 2.4 WSW	2.93"
0108020404	Chicopee River	MA-HD-25	Ludlow 2.3 SW	3.03"
01080205	Lower Connecticut			
0108020501	Mill River - Connecticut River	CT-HR-82	Suffield 0.5 NNE	3.50"
0108020501	Mill River - Connecticut River	CT-HR-57	Suffield Depot 3.3 NNE	3.21"
0108020501	Mill River - Connecticut River	CT-HR-5	Enfield 1.5 SE	3.68"
0108020502	Scantic River	CT-TL-26	Broad Brook 2.6 ESE	3.31"
0108020502	Scantic River	MA-HD-20	Wilbraham 3.7 SSW	1.70"
0108020502	Scantic River	CT-TL-15	Central Somers 0.3 N	3.36"
0108020503	Park River	CT-HR-39	Farmington 1.6 SW	3.66"
0108020503	Park River	CT-HR-58	West Hartford 2.1 NNE	3.17"
0108020503	Park River	CT-HR-85	West Hartford 2.3 NNE	2.21"
0108020504	Hockanum River	CT-TL-19	Vernon 2.8 N	3.56"
0108020505	Roaring Brook - Connecticut River	CT-HR-6	Wethersfield 1.2 WSW	3.73"
0108020505	Roaring Brook - Connecticut River	CT-HR-68	Rocky Hill 1.3 E	3.45"
0108020505	Roaring Brook - Connecticut River	CT-HR-22	East Hartford 1.3 E	3.30"
0108020505	Roaring Brook - Connecticut River	CT-HR-7	Central Manchester 2.7 SW	3.38"
0108020506	Mattabesset River	CT-HR-15	Southington 3.0 E	4.21"
0108020506	Mattabesset River	CT-HR-80	Kensington 0.7 WSW	4.04"
0108020506	Mattabesset River	CT-HR-65	Newington 1.9 SSW	3.81"
0108020506	Mattabesset River	CT-MD-25	Middlefield 0.6 SE	3.73"
0108020507	Higganum Creek - Connecticut River	CT-MD-23	Higganum 0.7 N	3.80"
0108020507	Higganum Creek - Connecticut River	CT-MD-26	Higganum 0.8 NE	3.42"

0108020509 Eightmile River - Connecticut River CT-MD-18 Essex Village 0.9 S 3.84" 010802060 Westfield					0.5011
01080206 Westfield MA-HS-7 Plainfield 2.2 SW 4.41" 0108020601 Headwaters Westfield River MA-HD-28 Westfield 2.8 SE 3.35" 0108020603 Outlet Westfield River MA-HD-29 West Springfield 1.6 SSW 3.35" 0108020707 Farmington Colebrook 1.0 NE 3.42" 0108020701 Still River CT-LT-15 Colebrook 1.0 NE 3.42" 0108020702 West Branch Farmington River CT-LT-18 New Hartford Center 1.5 N 3.49" 0108020705 Salmon Brook CT-HR-8 North Granby 1.3 ENE 3.55" 0109000102 Charles CT-HR-8 North Granby 1.3 ENE 3.55" 0109000102 Ipswich River MA-MD-85 Wilmington 2.2 WNW 3.15" 0109000102 Ipswich River MA-MD-125 Tewksbury 3.6 SSE 3.60" 0109000102 Ipswich River MA-ES-12 Boxford 2.4 SW 3.50" 0109000102 Ipswich River MA-ES-12 Boxford 2.4 SW 3.50" 0109000102 Ipswich River MA-ES-12	0108020509	Eightmile River - Connecticut River	CT-MD-19	Ivoryton 0.9 WSW	3.53"
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0108020701 Still River CT-LT-15 Colebrook 1.0 NE 3.42" 0108020702 West Branch Farmington River CT-LT-18 New Hartford Center 1.5 N 3.49" 0108020705 Salmon Brook CT-HR-8 North Granby 1.3 ENE 3.45" 01090001 Charles CT-HR-8 North Granby 1.3 ENE 3.55" 010900010.1 Plum Island Sound - Frontal Atlantic Ocean MA-MD-85 Wilmington 2.2 WNW 3.15" 010900010.2 Ipswich River MA-MD-85 Wilmington 1.5 NE 3.60" 010900010.2 Ipswich River MA-MD-45 Wilmington 1.5 NE 3.05" 010900010.2 Ipswich River MA-ES-58 Middleton 1.4 SSW 3.75" 010900010.2 Ipswich River MA-ES-52 Beverly 2.8 NW 2.71" 010900010.2 Ipswich River MA-ES-2 Beverly 2.8 NW 2.71" 010900010.3 Essex River - Frontal Atlantic Ocean MA-ES-4 Danvers 0.8 ESE 3.47" 010900010.4 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08"	0108020603	Outlet Westfield River	MA-HD-29	West Springfield 1.6 SSW	3.35"
0108020702 West Branch Farmington River CT-LT-18 New Hartford Center 1.5 N 3.49" 0108020704 Headwaters Farmington River CT-LT-9 New Hartford Center 3.2 SW 3.47" 0108020705 Salmon Brook CT-HR-8 North Granby 1.3 ENE 3.55" 0109000101 Charles Variety of March Granby 1.3 ENE 3.55" 0109000102 Ipswich River MA-MD-85 Willmington 2.2 WNW 3.15" 0109000102 Ipswich River MA-MD-125 Tewksbury 3.65 SSE 3.60" 0109000102 Ipswich River MA-MD-45 Wilmington 1.5 NE 3.03" 0109000102 Ipswich River MA-ES-58 Middleton 1.4 SSW 3.75" 0109000102 Ipswich River MA-ES-12 Boxford 2.4 s 3.50" 0109000103 Issex River - Frontal Atlantic Ocean MA-ES-21 Beverly 2.8 NW 2.71" 0109000104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 0109000104 Saugus River - Frontal Broad Sound MA-MD-126 Melrose 0.5 NE 3.06"	01080207	Farmington			
0108020704 Headwaters Farmington River CT-LT-9 New Hartford Center 3.2 SW 3.47" 0108020705 Salmon Brook CT-HR-8 North Granby 1.3 ENE 3.55" 010900010 Plum Island Sound - Frontal Atlantic Ocean MA-ES-24 Newburyport 0.8 SW 3.56" 0109000102 Ipswich River MA-MD-85 Wilmington 2.2 WNW 3.15" 0109000102 Ipswich River MA-MD-125 Tewksbury 3.6 SSE 3.60" 0109000102 Ipswich River MA-MD-45 Wilmington 1.5 NE 3.35" 0109000102 Ipswich River MA-ES-58 Middleton 1.4 SSW 3.75" 0109000102 Ipswich River MA-ES-2 Beverly 2.8 NW 2.71" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-2 Beverly 2.8 NW 2.71" 0109000104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 0109000104 Saugus River - Frontal Broad Sound MA-ES-45 Nahant 0.4 N 2.86" 0109000105 Saugus River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW	0108020701	Still River	CT-LT-15	Colebrook 1.0 NE	3.42"
0108020705 Salmon Brook CT-HR-8 North Granby 1.3 ENE 3.55" 010900010 Charles	0108020702	West Branch Farmington River	CT-LT-18	New Hartford Center 1.5 N	3.49"
01090001 Charles MA-ES-24 Newburyport 0.8 SW 3.56" 0109000102 Ipswich River MA-MD-85 Wilmington 2.2 WNW 3.15" 0109000102 Ipswich River MA-MD-125 Tewksbury 3.6 SSE 3.60" 0109000102 Ipswich River MA-MD-45 Wilmington 1.5 NE 3.03" 0109000102 Ipswich River MA-ES-58 Middleton 1.4 SSW 3.75" 0109000102 Ipswich River MA-ES-12 Boxford 2.4 S 3.50" 0109000103 Ipswich River MA-ES-12 Boxford 2.4 S 3.50" 0109000103 Issex River - Frontal Atlantic Ocean MA-ES-21 Beverly 2.8 NW 2.71" 0109000103 Essex River - Frontal Broad Sound MA-ES-22 Rockport 1.0 E 2.99" 0109000104 Saugus River - Frontal Broad Sound MA-MD-126 Melrose 0.5 NE 3.06" 0109000104 Saugus River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-12 Lexington 1.3 SE 2.77"	0108020704	Headwaters Farmington River	CT-LT-9	New Hartford Center 3.2 SW	3.47"
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0109000102 Ipswich River MA-MD-85 Wilmington 2.2 wNw 3.15" 0109000102 Ipswich River MA-MD-125 Tewksbury 3.6 SSE 3.60" 0109000102 Ipswich River MA-MD-45 Wilmington 1.5 NE 3.03" 0109000102 Ipswich River MA-ES-58 Middleton 1.4 SSW 3.75" 0109000102 Ipswich River MA-ES-12 Boxford 2.4 S 3.50" 0109000103 Ipswich River MA-ES-2 Beverly 2.8 NW 2.71" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-21 Danvers 0.8 ESE 3.47" 0109000104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 0109000104 Saugus River - Frontal Broad Sound MA-MD-126 Melrose 0.5 NE 3.06" 0109000104 Saugus River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-123 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-140 Mefford 1.2 W 3.1	01090001	Charles			
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0109000102 Ipswich River MA-MD-45 Wilmington 1.5 NE 3.03" 0109000102 Ipswich River MA-ES-58 Middleton 1.4 SSW 3.75" 0109000102 Ipswich River MA-ES-12 Boxford 2.4 S 3.50" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-21 Beverly 2.8 NW 2.71" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-41 Danvers 0.8 ESE 3.47" 0109000104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 0109000104 Saugus River - Frontal Broad Sound MA-MD-126 Melrose 0.5 NE 3.06" 0109000104 Saugus River - Frontal Broad Sound MA-ES-45 Nahant 0.4 N 2.86" 0109000105 Mystic River - Frontal Boston Harbor MA-ES-45 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-12 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-4 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-	0109000102	Ipswich River	MA-MD-85	Wilmington 2.2 WNW	3.15"
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0109000102 Ipswich River MA-ES-12 Boxford 2.4 S 3.50" 0109000102 Ipswich River MA-ES-2 Beverly 2.8 NW 2.71" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-41 Danvers 0.8 ESE 3.47" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-22 Rockport 1.0 E 2.99" 0109000104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 0109000104 Saugus River - Frontal Broad Sound MA-ES-45 Melrose 0.5 NE 3.06" 0109000104 Saugus River - Frontal Broad Sound MA-ES-4 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-123 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-7 Winchester 0.7 SE 3.08" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-14 Medford 1.2 W 3.50" 0109000105 Mystic River - Frontal Boston Harbor </td <td>0109000102</td> <td>Ipswich River</td> <td>MA-MD-45</td> <td>Wilmington 1.5 NE</td> <td>3.03"</td>	0109000102	Ipswich River	MA-MD-45	Wilmington 1.5 NE	3.03"
0109000102 Ipswich River MA-ES-2 Beverly 2.8 NW 2.71" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-41 Danvers 0.8 ESE 3.47" 010900103 Essex River - Frontal Atlantic Ocean MA-ES-22 Rockport 1.0 E 2.99" 010900104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 010900104 Saugus River - Frontal Broad Sound MA-MD-126 Melrose 0.5 NE 3.06" 010900104 Saugus River - Frontal Broad Sound MA-ES-45 Nahant 0.4 N 2.86" 010900105 Mystic River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-123 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-7 Winchester 0.7 SE 3.08" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-11 Cambridge 0.9 NNW 3.50" 0109000106 Upper Charles Rive	0109000102	Ipswich River	MA-ES-58	Middleton 1.4 SSW	3.75"
0109000103 Essex River - Frontal Atlantic Ocean MA-ES-41 Danvers 0.8 ESE 3.47" 0109000103 Essex River - Frontal Atlantic Ocean MA-ES-22 Rockport 1.0 E 2.99" 0109000104 Saugus River - Frontal Broad Sound MA-MD-81 Wakefield 0.5 NNW 3.08" 0109000104 Saugus River - Frontal Broad Sound MA-MD-126 Melrose 0.5 NE 3.06" 0109000104 Saugus River - Frontal Broad Sound MA-ES-45 Nahant 0.4 N 2.86" 0109000105 Mystic River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-123 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-7 Winchester 0.7 SE 3.08" 010900105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-11 Cambridge 0.9 NNW 3.50" 0109000105 Mystic River - Frontal Boston Harbor MA-WR-1 Milford 2.3 NNW 3.45" 0109000106	0109000102	Ipswich River	MA-ES-12	Boxford 2.4 S	3.50"
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0109000104 Saugus River - Frontal Broad Sound MA-ES-45 Nahant 0.4 N 2.86" 0109000104 Saugus River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-123 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-7 Winchester 0.7 SE 3.08" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-11 Cambridge 0.9 NNW 3.50" 010900105 Mystic River - Frontal Boston Harbor MA-SF-10 Chelsea 0.8 N 3.11" 0109000105 Mystic River - Frontal Boston Harbor MA-WR-1 Milford 2.3 NNW 3.45" 010900106 Upper Charles River MA-MD-106 Holliston 2.4 W 3.50" 010900106 Upper Charles River MA-MD-24 Holliston 0.8 S 3.39" 010900106 Upper Charles River MA-MD-158 Sherborn 1.1 NW 3.11" 0109000107 Lower Charles River - Frontal Boston Harb	0109000104	Saugus River - Frontal Broad Sound	MA-MD-81	Wakefield 0.5 NNW	3.08"
0109000104 Saugus River - Frontal Broad Sound MA-ES-8 Marblehead 0.8 SW 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-123 Lexington 1.3 SE 2.77" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-7 Winchester 0.7 SE 3.08" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-11 Cambridge 0.9 NNW 3.50" 0109000105 Mystic River - Frontal Boston Harbor MA-SF-10 Chelsea 0.8 N 3.11" 0109000106 Upper Charles River MA-WR-1 Milford 2.3 NNW 3.45" 0109000106 Upper Charles River MA-MD-106 Holliston 2.4 W 3.50" 0109000106 Upper Charles River MA-MD-12 Holliston 0.8 S 3.39" 0109000106 Upper Charles River MA-MD-158 Sherborn 1.1 NW 3.11" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-120 Natick 1.9 NNE 3.14" 0109000107 Lower Charles River - Frontal Boston Harbo	0109000104	Saugus River - Frontal Broad Sound	MA-MD-126	Melrose 0.5 NE	3.06"
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0109000105 Mystic River - Frontal Boston Harbor MA-MD-7 Winchester 0.7 SE 3.08" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-11 Cambridge 0.9 NNW 3.50" 0109000105 Mystic River - Frontal Boston Harbor MA-SF-10 Chelsea 0.8 N 3.11" 0109000106 Upper Charles River MA-WR-1 Milford 2.3 NNW 3.45" 0109000106 Upper Charles River MA-MD-106 Holliston 2.4 W 3.50" 0109000106 Upper Charles River MA-MD-42 Holliston 0.8 S 3.39" 0109000106 Upper Charles River MA-MD-158 Sherborn 1.1 NW 3.11" 0109000106 Upper Charles River - Frontal Boston Harbor MA-MD-120 Natick 1.9 NNE 3.49" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-80 Lincoln 1.5 SW 2.37" 0109000107 Lower Charles River - Frontal Boston Harbor MA-NF-35 Wellesley 0.1 W 3.16" 0109000107 Lower Charles River - Frontal	0109000104	Saugus River - Frontal Broad Sound	MA-ES-8	Marblehead 0.8 SW	2.77"
0109000105 Mystic River - Frontal Boston Harbor MA-MD-44 Medford 1.2 W 3.19" 0109000105 Mystic River - Frontal Boston Harbor MA-MD-11 Cambridge 0.9 NNW 3.50" 0109000105 Mystic River - Frontal Boston Harbor MA-SF-10 Chelsea 0.8 N 3.11" 0109000106 Upper Charles River MA-WR-1 Milford 2.3 NNW 3.45" 0109000106 Upper Charles River MA-MD-106 Holliston 2.4 W 3.50" 0109000106 Upper Charles River MA-MD-42 Holliston 0.8 S 3.39" 0109000106 Upper Charles River MA-MD-158 Sherborn 1.1 NW 3.11" 0109000106 Upper Charles River MA-NF-11 Millis 2.0 SW 3.49" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-120 Natick 1.9 NNE 3.14" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-80 Lincoln 1.5 SW 2.37" 0109000107 Lower Charles River - Frontal Boston Harbor MA-NF-35 Wellesley 0.1 W 3.16" 0109000107 Lower Charles River - Frontal Boston Harbor	0109000105	Mystic River - Frontal Boston Harbor	MA-MD-123	Lexington 1.3 SE	2.77"
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0109000106 Upper Charles River MA-WR-1 Milford 2.3 NNW 3.45" 0109000106 Upper Charles River MA-MD-106 Holliston 2.4 W 3.50" 0109000106 Upper Charles River MA-MD-42 Holliston 0.8 S 3.39" 0109000106 Upper Charles River MA-MD-158 Sherborn 1.1 NW 3.11" 0109000106 Upper Charles River MA-NF-11 Millis 2.0 SW 3.49" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-120 Natick 1.9 NNE 3.14" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-80 Lincoln 1.5 SW 2.37" 0109000107 Lower Charles River - Frontal Boston Harbor MA-NF-35 Wellesley 0.1 W 3.16" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-71 Newton 2.2 NNW 2.84" 0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-119 Watertown 1.1 W 3.25"	0109000105	Mystic River - Frontal Boston Harbor	MA-MD-11	Cambridge 0.9 NNW	3.50"
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	0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-71	Newton 2.2 NNW	2.84"
0109000107 Lower Charles River - Frontal Boston Harbor MA-MD-134 Somerville 0.5 SSE 3.07"	0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-119	Watertown 1.1 W	3.25"
	0109000107	Lower Charles River - Frontal Boston Harbor	MA-MD-134	Somerville 0.5 SSE	3.07"

0109000107Lower Charles River - Frontal Boston HarborMA-SF-1Boston 0.5 WSW4.90109000108Neponset River - Frontal Boston HarborMA-NF-1Norwood 1.3 NW3.20109000108Neponset River - Frontal Boston HarborMA-NF-54Quincy 1.2 W3.30109000109Whitmans Pond - Frontal Boston HarborMA-NF-32Quincy 1.8 WSW3.10109000109Whitmans Pond - Frontal Boston HarborMA-PL-36Hingham 0.8 ESE2.9
0109000108Neponset River - Frontal Boston HarborMA-NF-54Quincy 1.2 W3.30109000109Whitmans Pond - Frontal Boston HarborMA-NF-32Quincy 1.8 WSW3.1
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0109000109Whitmans Pond - Frontal Boston HarborMA-PL-36Hingham 0.8 ESE2.9
01090002 Cape Cod
0109000201 North River - Frontal Massachusetts Bay MA-PL-5 Kingston 3.3 WNW 3.5
0109000201 North River - Frontal Massachusetts Bay MA-PL-30 Duxbury 3.7 W 3.0
0109000201 North River - Frontal Massachusetts Bay MA-PL-48 Marshfield 1.5 NNW 3.2
0109000201 North River - Frontal Massachusetts Bay MA-PL-47 Plymouth 1.1 NNW 3.1
0109000202 Cape Cod MA-BA-8 Falmouth 1.8 WSW 3.5
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0109000203 Mattapoisett River - Frontal Buzzards Bay MA-PL-52 Plymouth 10.6 SSE 4.3
0109000203 Mattapoisett River - Frontal Buzzards Bay MA-BA-64 Sandwich 1.5 SSE 3.8
0109000204 Paskamanset River - Frontal Buzzards Bay MA-BR-14 Dartmouth 2.5 SSW 3.5

DI090002024 Paskamanset River - Frontal Buzzards Bay Mr-BR-52 New Bedford 4.3 N 3.75°		I - 1 - 1 - 1 - 1 -		I 16 1	
0109000205 Sakonnet Point - Frontal Rhode Island Sound Ri-NW-17 Tiverton 4.4 SSE 3.59" 0109000205 Sakonnet Point - Frontal Rhode Island Sound Ri-NW-7 Little Compton 0.6 E 3.52" 0109000206 Elizabeth Islands - Marthas Vineyard MA-DK-5 West Tisbury 2.9 N 4.45" 010900031 Elizabeth Islands - Marthas Vineyard MA-DK-2 Vineyard Haven 0.8 WSW 4.04" 010900031 Upper Blackstone River MA-WR-41 Auburn 2.6 SW 2.71" 0109000301 Upper Blackstone River MA-WR-43 Leicester 2.4 ESE 3.20" 0109000301 Upper Blackstone River MA-WR-70 Grafton 1.5 W 3.66" 0109000302 Lower Blackstone River RI-PR-28 North Smithfield 0.7 SE 3.55" 0109000302 Lower Blackstone River RI-PR-28 North Smithfield 0.7 SE 3.31" 0109000302 Lower Blackstone River RI-PR-83 Woonsocket 1.5 NW 3.33" 0109000302 Lower Blackstone River MA-WR-76 Marville 0.4 WSW 3.40" 0109000302 Lower Blackstone River MA-WR-76 RI-PR-85 Marville 0.4 WSW 3.40" 0109000302 Lower Blackstone River MA-WR-76 RI-PR-85 Marville 0.4 WSW 3.40" 0109000302 Lower Blackstone River MA-WR-76 RI-PR-85 Marville 0.4 WSW 3.40" 0109000302 Lower Blackstone River MA-WR-76 RI-PR-57 Marville 0.4 WSW 3.40" 010900040 Lower Blackstone River MA-WR-78 RI-PR-75 Marville 0.4 WSW 3.40" 010900040 Lower Blackstone River MA-WR-78 RI-PR-75 Marville 0.4 WSW 3.40" 010900040 Lower Blackstone River MA-WR-78 RI-PR-75 Marville 0.4 WSW 3.40" 010900040 Lower Blackstone River MA-WR-78 RI-PR-75 Marville 0.4 WSW 3.40" 010900040 Lower Blackstone River MA-WR-78 RI-PR-78 MA-WR-78 RI-PR-78 MA-WR-79 RI-PR-78 RI-PR-79 RI-PR-7	0109000204	Paskamanset River - Frontal Buzzards Bay	MA-BR-52	New Bedford 4.3 N	3.73"
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0109000206 Elizabeth Islands - Marthas Vineyard					
010900030		-		•	
0109000301 Upper Blackstone River MA-WR-41 Auburn 2.6 SW 2.71" 0109000301 Upper Blackstone River MA-WR-70 Grafton 1.5 W 3.66" 0109000302 Lower Blackstone River RI-PR-50 Harrisville 1.2 SSE 3.55" 0109000302 Lower Blackstone River RI-PR-28 North Smithfield 0.7 SE 3.31" 0109000302 Lower Blackstone River RI-PR-63 Woonsocket 1.5 NW 3.33" 0109000302 Lower Blackstone River RI-PR-63 Monsocket 1.5 NW 3.40" 0109000302 Lower Blackstone River RI-PR-63 Manville 0.4 WSW 3.40" 0109000302 Lower Blackstone River RI-PR-55 Cumberland Hill 3.6 NNE 2.95" 01090000302 Lower Blackstone River RI-PR-55 Cumberland Hill 3.6 NNE 2.95" 0109000040 Upper Taunton River MA-BR-30 Taunton 3.9 N 3.05" 0109000401 Upper Taunton River MA-PL-23 Brockton 1.6 SSW 3.16" 0109000402 Upper Taunton River MA-PL-15 Abington 1.2 NNE 2.64" </td <td></td> <td></td> <td>MA-DK-2</td> <td>Vineyard Haven 0.8 WSW</td> <td>4.04''</td>			MA-DK-2	Vineyard Haven 0.8 WSW	4.04''
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0109000302 Lower Blackstone River MA-NF-26 Bellingham 2.4 S 3.04" 0109000302 Lower Blackstone River RI-PR-55 Cumberland Hill 3.6 NNE 2.95" 0109000401 Upper Taunton River MA-BR-30 Taunton 3.9 N 3.05" 0109000401 Upper Taunton River MA-PL-15 Brockton 1.6 SSW 3.16" 0109000401 Upper Taunton River MA-PL-15 Abington 1.2 NNE 2.64" 0109000401 Upper Taunton River MA-PL-31 Bridgewater 1.8 SE 2.96" 0109000402 Middle Taunton River MA-PL-31 Bridgewater 1.8 SE 2.96" 0109000402 Middle Taunton River MA-PL-17 Plympton 0.9 NNE 3.16" 0109000402 Threemile River MA-NF-19 Foxborough 1.8 SSW 2.43" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000403 Threemile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21"	0109000302	Lower Blackstone River	RI-PR-63	Woonsocket 1.5 NW	3.33"
0109000302 Lower Blackstone River RI-PR-55 Cumberland Hill 3.6 NNE 2.95" 0109000401 Upper Taunton River MA-BR-30 Taunton 3.9 N 3.05" 0109000401 Upper Taunton River MA-PL-51 Brockton 1.6 SSW 3.16" 0109000401 Upper Taunton River MA-PL-15 Abington 1.2 NNE 2.64" 0109000401 Upper Taunton River MA-PL-13 Bridgewater 1.8 SE 3.21" 0109000402 Middle Taunton River MA-PL-31 Bridgewater 1.8 SE 2.96" 0109000403 Threemile River MA-NF-19 Foxborough 1.8 SSW 2.43" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000403 Threemile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" </td <td>0109000302</td> <td>Lower Blackstone River</td> <td>RI-PR-45</td> <td>Manville 0.4 WSW</td> <td>3.40''</td>	0109000302	Lower Blackstone River	RI-PR-45	Manville 0.4 WSW	3.40''
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0109000401 Upper Taunton River MA-PL-51 Brockton 1.6 SSW 3.16" 0109000401 Upper Taunton River MA-PL-15 Abington 1.2 NNE 2.64" 0109000401 Upper Taunton River MA-PL-23 Pembroke 2.8 SW 3.21" 0109000402 Middle Taunton River MA-PL-31 Bridgewater 1.8 SE 2.96" 0109000402 Middle Taunton River MA-PL-17 Plympton 0.9 NNE 3.16" 0109000403 Threemile River MA-PL-17 Plympton 0.9 NNE 3.16" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000404 Ten Mile River MA-BR-53 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-53 Providence 1.7 N 2	01090004	Narragansett			
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0109000401 Upper Taunton River MA-PL-23 Pembroke 2.8 SW 3.21" 0109000402 Middle Taunton River MA-PL-31 Bridgewater 1.8 SE 2.96" 0109000402 Middle Taunton River MA-PL-17 Plympton 0.9 NNE 3.16" 0109000403 Threemile River MA-NF-19 Foxborough 1.8 SSW 2.43" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000405 Woonasquatucket River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.	0109000401	Upper Taunton River	MA-PL-51	Brockton 1.6 SSW	3.16''
0109000402 Middle Taunton River MA-PL-31 Bridgewater 1.8 SE 2.96" 0109000402 Middle Taunton River MA-PL-17 Plympton 0.9 NNE 3.16" 0109000403 Threemile River MA-NF-19 Foxborough 1.8 SSW 2.43" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" <td>0109000401</td> <td>Upper Taunton River</td> <td>MA-PL-15</td> <td>Abington 1.2 NNE</td> <td>2.64"</td>	0109000401	Upper Taunton River	MA-PL-15	Abington 1.2 NNE	2.64"
0109000402 Middle Taunton River MA-PL-17 Plympton 0.9 NNE 3.16" 0109000403 Threemile River MA-NF-19 Foxborough 1.8 SSW 2.43" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE <td< td=""><td>0109000401</td><td>Upper Taunton River</td><td>MA-PL-23</td><td>Pembroke 2.8 SW</td><td>3.21"</td></td<>	0109000401	Upper Taunton River	MA-PL-23	Pembroke 2.8 SW	3.21"
0109000403 Threemile River MA-NF-19 Foxborough 1.8 SSW 2.43" 0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-KN-21 Coventry 1.9 NE 2.78" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 3.3	0109000402	Middle Taunton River	MA-PL-31	Bridgewater 1.8 SE	2.96''
0109000403 Threemile River MA-BR-55 NWS Boston/Norton 2.5 ESE 2.82" 0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 1.2 SSE 2.98" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8	0109000402	Middle Taunton River	MA-PL-17	Plympton 0.9 NNE	3.16"
0109000404 Ten Mile River MA-BR-23 Attleboro 0.9 ENE 2.74" 0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-RN-21 Coventry 1.9 NE 2.78" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 3.3 NNW 2.79" 0109000409 Narragansett Bay RI-KN-17	0109000403	Threemile River	MA-NF-19	Foxborough 1.8 SSW	2.43"
0109000405 Wonnasquatucket River-Moshassuck River RI-PR-33 Greenville 0.7 NNW 3.21" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-51 North Smithfield 0.6 S 3.30" 0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-PR-53 Coventry 1.9 NE 2.78" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54	0109000403	Threemile River	MA-BR-55	NWS Boston/Norton 2.5 ESE	2.82"
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0109000405 Woonasquatucket River-Moshassuck River RI-PR-53 Providence 1.7 N 2.68" 0109000406 Pawtuxet River RI-KN-21 Coventry 1.9 NE 2.78" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000405	Wonnasquatucket River-Moshassuck River	RI-PR-33	Greenville 0.7 NNW	3.21"
0109000406 Pawtuxet River RI-KN-21 Coventry 1.9 NE 2.78" 0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000405	Woonasquatucket River-Moshassuck River	RI-PR-51	North Smithfield 0.6 S	3.30"
0109000406 Pawtuxet River RI-PR-57 Cranston 1.2 SSE 2.98" 0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 1.1 WSW 3.55" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000405	Woonasquatucket River-Moshassuck River	RI-PR-53	Providence 1.7 N	2.68''
0109000406 Pawtuxet River RI-PR-44 Cranston 4.2 ENE 3.08" 0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 1.1 WSW 3.55" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000406	Pawtuxet River	RI-KN-21	Coventry 1.9 NE	2.78''
0109000407 Palmer River MA-BR-2 Rehoboth 2.1 N 2.80" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 1.1 WSW 3.55" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000406	Pawtuxet River	RI-PR-57	Cranston 1.2 SSE	2.98''
0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-61 Mansfield 2.4 ENE 3.02" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-3 Norton 1.8 NNE 2.96" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 1.1 WSW 3.55" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000406	Pawtuxet River	RI-PR-44	Cranston 4.2 ENE	3.08"
0109000408Lower Taunton River - Frontal Mount Hope BayMA-BR-3Norton 1.8 NNE2.96"0109000408Lower Taunton River - Frontal Mount Hope BayMA-BR-58Dighton 3.3 NNW2.79"0109000408Lower Taunton River - Frontal Mount Hope BayMA-BR-8Dighton 1.1 WSW3.55"0109000409Narragansett BayRI-KN-17East Greenwich 1.2 NNE3.44"0109000409Narragansett BayRI-WS-54North Kingstown 2.7 WSW3.90"0109000409Narragansett BayRI-WS-50North Kingstown 3.1 NW4.04"	0109000407	Palmer River	MA-BR-2	Rehoboth 2.1 N	2.80"
0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-58 Dighton 3.3 NNW 2.79" 0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 1.1 WSW 3.55" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-61	Mansfield 2.4 ENE	3.02"
0109000408 Lower Taunton River - Frontal Mount Hope Bay MA-BR-8 Dighton 1.1 WSW 3.55" 0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-3	Norton 1.8 NNE	2.96"
0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-58	Dighton 3.3 NNW	2.79''
0109000409 Narragansett Bay RI-KN-17 East Greenwich 1.2 NNE 3.44" 0109000409 Narragansett Bay RI-WS-54 North Kingstown 2.7 WSW 3.90" 0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000408	Lower Taunton River - Frontal Mount Hope Bay	MA-BR-8	Dighton 1.1 WSW	3.55"
0109000409 Narragansett Bay RI-WS-50 North Kingstown 3.1 NW 4.04"	0109000409	1	RI-KN-17	East Greenwich 1.2 NNE	3.44''
	0109000409	Narragansett Bay	RI-WS-54	North Kingstown 2.7 WSW	3.90''
0109000409 Narragansett Bay RI-WS-31 Kingston 7.5 NNE 3.43"	0109000409	Narragansett Bay	RI-WS-50	North Kingstown 3.1 NW	4.04''
	0109000409	Narragansett Bay	RI-WS-31	Kingston 7.5 NNE	3.43"

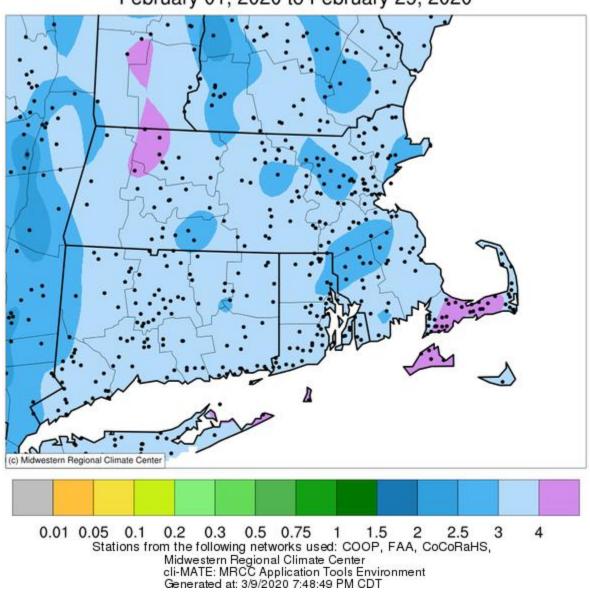
0109000409	Narragansett Bay	RI-KN-15	Warwick 4.3 SSW	3.47"
0109000409	Narragansett Bay	RI-KN-2	East Greenwich 2.3 ESE	3.11"
0109000409	Narragansett Bay	RI-KN-23	Warwick 3.2 NNE	2.92"
0109000409	Narragansett Bay	RI-PR-67	Providence 1.6 NE	3.02"
0109000409	Narragansett Bay	RI-NW-18	Jamestown 0.3 SSE	3.44"
0109000409	Narragansett Bay	RI-BR-5	Barrington 1.3 WNW	3.04"
0109000409	Narragansett Bay	RI-NW-4	Middletown 1.1 SW	2.10"
0109000409	Narragansett Bay	RI-NW-19	Portsmouth 2.3 S	3.53"
0109000409	Narragansett Bay	RI-NW-16	Portsmouth 1.3 S	3.94"
0109000409	Narragansett Bay	RI-NW-20	Tiverton 1.0 SSW	3.51"
01090005	Pawcatuck-Wood			
0109000501	Wood River	RI-WS-1	Hope Valley 3.7 S	3.27"
0109000502	Upper Pawcatuck River	RI-WS-46	Westerly 3.4 E	3.51"
0109000502	Upper Pawcatuck River	RI-WS-51	Richmond 2.4 SSE	3.45"
0109000502	Upper Pawcatuck River	RI-WS-42	Richmond 4.6 NNE	3.34"
0109000502	Upper Pawcatuck River	RI-WS-45	Charlestown 4.7 NNE	3.51"
0109000502	Upper Pawcatuck River	RI-WS-37	Kingston 2.4 SW	3.47"
0109000503	Lower Pawcatuck River	CT-NL-40	Pawcatuck 1.8 SSE	3.66"
0109000503	Lower Pawcatuck River	RI-WS-47	Westerly 0.8 WNW	2.00''
0109000504	Frontal Block Island Sound	RI-WS-36	Charlestown 3.0 WSW	3.79"
0109000504	Frontal Block Island Sound	RI-WS-26	Charlestown 1.1 ENE	3.82"
0109000504	Frontal Block Island Sound	RI-WS-55	Wakefield 0.8 ENE	3.74"
0109000504	Frontal Block Island Sound	RI-WS-52	Wakefield-Peacedale 3.1 NE	3.75"
01100001	Quinebaug			
0110000102	French River	MA-WR-68	Oxford 0.9 SSW	3.26"
0110000103	Fivemile River	CT-WN-4	East Killingly 1.3 SW	3.19"
0110000105	Moosup River	CT-WN-8	Moosup 1.7 NE	2.90''
0110000106	Pachaug River	CT-NL-21	Griswold 0.9 N	2.98''
01100002	Shetucket			
0110000201	Willimantic River	CT-TL-2	Staffordville 0.4 NNW	3.11"
0110000202	Natchaug River	CT-TL-30	Mansfield Center 2.7 NE	3.36''
0110000202	Natchaug River	CT-WN-12	Eastford 2.0 W	3.43"
0110000203	Shetucket River	CT-NL-10	Norwich 2.5 NNE	3.83"
01100003	Thames			
0110000302	Thames River-Frontal New London Harbor	CT-NL-6	New London 1.0 NNW	3.83''
0110000302	Thames River-Frontal New London Harbor	CT-NL-8	Uncasville-Oxoboxo Valley 1.6 ENE	3.30''
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-22	Central Waterford 2.7 SSW	3.75"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-24	Stonington 1.4 NNW	3.73"
0110000303	Mystic River - Frontal Fishers Island Sound	CT-NL-18	Stonington 0.5 NNE	3.23''
01100004	Quinnipiac			

0110000401	Quinnipiac River	CT-NH-14	Prospect 1.9 ENE	3.83"
0110000401	Quinnipiac River	CT-NR-14 CT-HR-23	Southington 0.9 SSE	3.75"
0110000401	Quinnipiac River	CT-HR-76	Southington 1.0 ENE	3.40"
0110000401	Quinnipiac River	CT-NH-44	Wallingford Center 1.9 WNW	4.06"
0110000401	Quinnipiac River	CT-NH-43	Wallingford Center 1.3 WWW	4.07"
0110000401	Quinnipiac River	CT-NH-42	Wallingford Center 3.3 NVVV	3.93"
0110000401	Hammonasset River - Frontal Long Island Sound	CT-NH-50	Madison Center 4.1 N	3.79"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-21	Killingworth 2.6 ESE	3.61"
0110000402	Hammonasset River - Frontal Long Island Sound	CT-MD-27	Clinton 3.7 N	4.02"
0110000402	Mill River - Frontal Long Island Sound	CT-NH-57	New Haven 2.9 NNW	3.92"
0110000403	Housatonic	CI-INII-37	New Havell 2.5 NNW	3.32
01100003	Headwaters Housatonic River	MA-BE-11	Great Barrington 3.0 N	2.91"
0110000501	Headwaters Housatonic River	MA-BE-3	Stockbridge .2 NNE	3.22"
0110000501	Macedonia Brook - Housatonic River	CT-LT-20	Warren 2.4 WNW	2.79"
	Candlewood Lake-Housatonic River		New Milford 5.3 SSW	2.79
0110000506 0110000508		CT-LT-22	Bethel 3.5 NNE	3.18"
	Still River - Housatonic River	CT-FR-41		2.97"
0110000508	Still River - Housatonic River	CT-FR-9	Brookfield 3.3 SSE Litchfield 2.3 NNE	3.45"
0110000511	Headwaters Naugatuck River	CT-LT-7		3.45
0110000512	Outlet Naugatuck River	CT-NH-47	Seymour 1.5 NE	
0110000512	Outlet Naugatuck River	CT-NH-45	Naugatuck 1.7 NNE	3.13"
0110000512	Outlet Naugatuck River	CT-NH-22	Prospect 0.5 SW	3.29"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-23	Shelton 1.3 W	3.42"
0110000513	Housatonic River - Frontal Long Island Sound	CT-FR-46	Stratford 0.2 ESE	3.99''
01100006	Saugatuck			0.0411
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-58	Ridgefield 3.6 N	3.04"
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-64	Bethel 4.5 SSE	3.32"
0110000601	Saugatuck River - Frontal Long Island Sound	CT-FR-31	Newtown 4.6 SSW	3.34"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-29	Ridgefield 1.9 SSE	3.51"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-63	Wilton 1.9 NW	4.81''
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-3	New Canaan 1.9 ENE	3.71"
0110000602	Norwalk River - Frontal Norwalk Harbor	CT-FR-25	Norwalk 2.9 NNW	3.36"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-20	Westport 2.5 ENE	3.77''
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-60	Fairfield 1.5 NE	3.56"
0110000603	Pequonnock River - Frontal Long Island Sound	CT-FR-26	Stratford 0.9 W	3.47''
0110000604	Mianus River-Rippowam River	CT-FR-50	Darien 2.8 NW	3.30"
02020003	Hudson-Hoosic			
0202000306	Upper Hoosic River	MA-BE-21	Cheshire 0.5 NNW	4.38''
02020006	Middle Hudson			
0202000603	Wynants Kill – Hudson River	NY-AB-21	NWS Albany	2.33"
02030203	Long Island Sound			
0203020300	Long Island Sound	NY-SF-114	Fishers Island 0.5 NE	4.00''

Pink colors for over 4" of precip. Great definition on the Cape and in western reaches of Franklin and Hampshire Counties of MA.

Accumulated Precipitation (in)

February 01, 2020 to February 29, 2020



"We do not live at the airport"

The CoCoRaHS stations listed averaged 3.45" of precip for February 2020. The list of airport stations averaged 3.03". Sure, our Cape Cod stations made a strong showing, raising the average. But there is something more. What could it be? Ready?

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

Location	Station ID	Feb 2020 Precip	Feb departure from normal	Dec- Jan- Feb Precip	3 month departure from normal	Sep- Feb Precip	6 month departure from normal	Mar- Feb Precip	12 month departure from normal
White Plains NY	HPN	2.45"	-0.54"	10.16''	-0.93"	21.12"	-3.07"	47.96"	-1.39"
Danbury CT	DXR	2.35"	-0.42"	9.67''	-0.56''	20.30"	-3.19''	42.42"	-7.45"
New Haven CT	HVN	2.80"	-0.09"	10.98''	1.29"	20.26"	-1.97''	45.86"	-1.25"
Meriden CT	MMK	3.79"	0.90"	13.71"	4.02"	26.30"	4.07''	46.21''	-0.90''
Hartford CT	HFD	3.24"	0.59"	9.17''	0.02"	18.79"	-1.82''	44.87"	1.27"
Willimantic CT	IJD	2.12"	-0.86''	9.07''	-1.61"	19.87"	-3.54"	42.84"	-5.58"
New London CT	GON	3.19"	0.33"	10.28''	0.42"	21.54"	-0.49''	50.12"	3.63"
Westerly RI	WST	2.63"	-0.37"	9.62''	-0.53"	21.68"	-0.83''	53.82"	6.43"
Newport RI	UUU	3.30"	0.17''	8.67"	-1.87''	18.84"	-3.93"	44.09"	-2.24"
New Bedford MA	EWB	1.71"	-1.96''	9.00''	-2.57"	16.46"	-7.49''	38.18"	-10.18''
Hyannis MA	HYA	3.48"	-0.04"	13.13"	1.30"	27.06"	2.77"	51.06"	3.37"
Nantucket MA	ACK	3.75"	1.03"	13.02"	2.89"	25.70"	3.18"	44.38"	-0.04"
Marthas Vineyard MA	MVY	3.78"	0.60''	12.88"	2.47"	25.75"	2.53''	48.35"	3.19"
Taunton MA	TAN	2.89"	-0.67''	12.17"	0.31"	23.24"	-1.73''	46.27"	-3.47"
Plymouth MA	PYM	3.27"	-0.33"	14.19"	2.51"	28.66"	4.32"	57.57"	8.42"
Norwood MA	OWD	3.24"	-0.01''	10.07"	-0.69"	20.06"	-3.08''	44.11"	-2.95"
Bedford MA	BED	2.67"	-0.34''	9.25"	-0.91"	18.80"	-3.43''	42.32"	-3.39"
Beverly MA	BVY	3.14"	-0.14''	11.40''	1.40"	20.62"	-1.95"	43.50"	-2.68"
Lawrence MA	LWM	3.06"	0.27"	10.49"	1.70"	20.35"	0.05"	42.49"	-0.67''
Fitchburg MA	FIT	3.05"	0.05"	5.00''	-5.07"	12.10"	-10.35"	37.06"	-10.08"
Orange MA	ORE	2.95"	0.30"	9.88''	1.30"	19.54"	-0.26''	43.12"	0.57"
Westfield MA	BAF	2.92"	0.09"	10.00''	0.48"	21.28"	-1.60''	42.39"	-6.00''
North Adams MA	AQW	2.77"	0.20''	7.36''	-1.25"	18.27"	-3.15"	38.80"	-7.81"

Rulers of the Snow

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

It stays stretched to the next page! A long list of 64 stations, those that measured snow fall and snow depth for all days in February. Even on Marthas Vineyard! Even on Fishers Island!

811 stations throughout the network reported snow fall and snow depth in February. 64 or 8% of them are listed here. Way to go!

Keep making this list even longer. Make a snow fall and snow depth measurement with every Daily Report, if you can safely do so, *all year round.*

Station	Name	Feb 2020 Snowfall	Station	Name	Feb 2020 Snowfall
MA-BE-21	Cheshire 0.5 NNW	13.0"	CT-FR-3	New Canaan 1.9 ENE	0.0''
MA-HS-7	Plainfield 2.2 SW	11.2"	CT-FR-41	Bethel 3.5 NNE	0.0''
MA-FR-17	Buckland 1.8 ESE	10.2"	CT-FR-9	Brookfield 3.3 SSE	0.0''
MA-FR-13	Conway 2.9 NW	8.4"	CT-NH-43	Wallingford Center 3.3 NNW	0.0''
MA-FR-10	Conway 0.9 SW	6.5"	CT-NH-57	New Haven 2.9 NNW	0.0''
MA-ES-4	Groveland 0.5 WSW	4.5"	CT-HR-22	East Hartford 1.3 E	0.0''
MA-ES-48	Andover 0.6 E	3.9"	CT-MD-21	Killingworth 2.6 ESE	0.0''
CT-LT-15	Colebrook 1.0 NE	3.6"	CT-MD-23	Higganum 0.7 N	0.0''
MA-ES-12	Boxford 2.4 S	3.6"	CT-NL-10	Norwich 2.5 NNE	0.0''
MA-MD-125	Tewksbury 3.6 SSE	3.1"	CT-NL-21	Griswold 0.9 N	0.0''
MA-MD-12	Acton 1.3 SW	2.6"	CT-NL-24	Stonington 1.4 NNW	0.0''
CT-LT-9	New Hartford Center 3.2 SW	2.4"	RI-PR-44	Cranston 4.2 ENE	0.0''
MA-WR-42	Northborough 2.3 N	2.3"	RI-KN-2	East Greenwich 2.3 ESE	0.0''
MA-FR-12	Sunderland 1.3 SE	2.2"	RI-WS-42	Richmond 4.6 NNE	0.0''
MA-ES-41	Danvers 0.8 ESE	2.1"	RI-WS-46	Westerly 3.4 E	0.0''
MA-HS-26	Easthampton 0.5 SW	2.0''	RI-WS-47	Westerly 0.8 WNW	0.0''
MA-MD-51	Maynard 0.7 ESE	1.9"	RI-WS-55	Wakefield 0.8 ENE	0.0''
MA-MD-156	Marlborough 2.8 ENE	1.7"	RI-NW-18	Jamestown 0.3 SSE	0.0''
CT-HR-8	North Granby 1.3 ENE	1.5"	RI-NW-7	Little Compton 0.6 E	0.0''
MA-MD-126	Melrose 0.5 NE	1.5"	MA-BR-23	Attleboro 0.9 ENE	0.0''
MA-MD-7	Winchester 0.7 SE	1.4"	MA-BR-30	Taunton 3.9 N	0.0''

MA-HD-25	Ludlow 2.3 SW	0.8''	MA-BR-55	NWS Boston/Norton 2.5 ESE	0.0''
CT-WN-8	Moosup 1.7 NE	0.6"	MA-BR-8	Dighton 1.1 WSW	0.0''
CT-WN-4	East Killingly 1.3 SW	0.5"	MA-PL-31	Bridgewater 1.8 SE	0.0''
MA-NF-1	Norwood 1.3 NW	0.5"	MA-BA-18	Waquoit 0.6 SSW	0.0''
MA-BA-64	Sandwich 1.5 SSE	0.5"	MA-BA-2	Falmouth 3.1 NNW	0.0''
RI-PR-33	Greenville 0.7 NNW	0.4"	MA-BA-3	Falmouth 3.0 E	0.0''
RI-PR-51	North Smithfield 0.6 S	0.3"	MA-BA-50	Falmouth 5.4 NNE	0.0''
MA-NF-11	Millis 2.0 SW	0.3"	MA-BA-72	Yarmouth 2.0 S	0.0''
MA-BA-47	Mashpee 2.4 WSW	0.2"	MA-BA-76	Barnstable 0.7 NE	0.0''
CT-FR-23	Shelton 1.3 W	0.0''	MA-DK-2	Vineyard Haven 0.8 WSW	0.0''
CT-FR-25	Norwalk 2.9 NNW	0.0''	NY-SF-114	Fishers Island 0.5 NE	0.0''

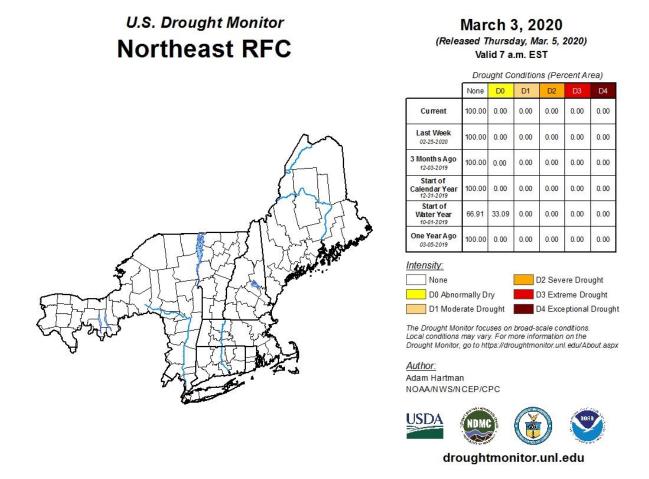
February 2020 as a calendar. A count of your Daily Reports by Date. Magenta colors are for the highest counts. Lime green color for the lowest counts.

304 Reports per Day was our record reporting average for February.

February 2020						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 315
309	3	4	5	6	7	8
309	308	313	327	318	313	300
9	10	11	12	13	14	15
296	311	312	309	307	302	282
16	17	18	19	20	21	22
284	287	293	305	301	298	294
23	24	25	26	27	28	29
293	297	308	316	321	305	289

Our last widespread wet month was December. A wet month of March would be welcomed and put us in a good spot for the upcoming growing season.

Every drop counts and zeros do too!



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

Wrap up

If this is your very first Newsletter, and you made it to this conclusion, congratulations are in order! We put this together every month through the year. Our Founder, Nolan Doesken, sends out a Newsletter as well, several times a year, so your email box should not stay quiet for long.

If you are new to the crew, do not all of this overwhelm you. Start off small, get into the morning routine of submitting Daily Reports and grow from there. You should not be bored. There is always more to learn, and there are many more dimensions to our roles as observers. And if you have questions, want to know more why we do what we do, or how to do something, email is the best way to get a hold of a Coordinator.

The vernal equinox occurs on Thursday, March 19th at 11:50PM, the earliest equinox in 124 years! Having Leap Day helps make the equinox early on the calendar. Equal hours of daylight and darkness for all points on our planet, as we continue our transition to summer.

Should we get a dry, maybe windy, sun-filled stretch of weather, especially in April before the leaves come on the trees, be aware of Fire Weather. April and October are our prime Fire Weather months. No leaves on trees to keep the sun from shining on the forest floor, no snow cover, low dew points. Combine the time of year, days without rain, a windy day, with our somewhat dense population, and brush fires often occur.

SkyWarn classes are starting this spring. Although not a requirement as a CoCoRaHS observer, it is recommended to attend a SkyWarn session at some point, if there is a session nearby. Learn about wind related hazards, more about your local NWS Forecast Office, and SkyWarn's reporting criteria. Please look at your local NWS Forecast Office's website for dates and times. BOX has a web site for their schedule. Dates, times and locations to follow.

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