

September 2025 Massachusetts Precipitation

National Weather Service Offices
Boston/Norton MA, Albany NY, Upton NY

Preliminary Precipitation Data (inches) by County

Precipitation Data through September 2025

Includes CoCoRaHS data

Includes StageIV Data

MA 1-Month Sep 2025

County	Rainfall	Departure	Percent	Normal
Barnstable	3.23	-0.75	81	3.98
Berkshire	3.82	-1.00	79	4.82
Bristol	4.90	0.89	122	4.01
Dukes	1.74	-2.11	45	3.85
Essex	2.85	-0.90	76	3.75
Franklin	3.83	-0.77	83	4.60
Hampden	3.82	-0.76	83	4.58
Hampshire	3.89	-0.77	83	4.66
Middlesex	3.11	-0.72	81	3.83
Nantucket	1.00	-2.90	26	3.90
Norfolk	3.88	-0.06	98	3.94
Plymouth	4.58	0.56	114	4.02
Suffolk	3.51	-0.25	93	3.76
Worcester	3.34	-0.75	82	4.09

MA 2-Month Aug 25-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	5.14	-2.33	69	7.47
Berkshire	6.84	-2.62	72	9.46
Bristol	7.80	-0.01	100	7.81
Dukes	4.81	-2.62	65	7.43
Essex	5.86	-1.31	82	7.17
Franklin	6.31	-2.73	70	9.04
Hampden	7.73	-1.24	86	8.97
Hampshire	7.02	-2.05	77	9.07
Middlesex	6.12	-1.50	80	7.62
Nantucket	2.09	-5.01	29	7.10
Norfolk	6.61	-1.14	85	7.75
Plymouth	6.98	-0.81	90	7.79

Suffolk	6.14	-1.23	83	7.37
Worcester	6.68	-1.60	81	8.28

MA 3-Month Jul 25-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	7.28	-2.98	71	10.26
Berkshire	10.04	-4.05	71	14.09
Bristol	11.00	-0.16	99	11.16
Dukes	7.31	-2.87	72	10.18
Essex	7.72	-3.03	72	10.75
Franklin	8.25	-5.12	62	13.37
Hampden	11.49	-1.72	87	13.21
Hampshire	10.74	-2.64	80	13.38
Middlesex	8.50	-2.84	75	11.34
Nantucket	2.93	-6.70	30	9.63
Norfolk	11.49	0.20	102	11.29
Plymouth	10.54	-0.58	95	11.12
Suffolk	9.69	-1.23	89	10.92
Worcester	9.62	-2.61	79	12.23

MA 4-Month Jun 25-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	8.86	-4.87	65	13.73
Berkshire	13.41	-5.55	71	18.96
Bristol	12.31	-2.87	81	15.18
Dukes	9.15	-4.39	68	13.54
Essex	9.50	-5.45	64	14.95
Franklin	12.41	-5.72	68	18.13
Hampden	14.66	-3.16	82	17.82
Hampshire	14.41	-3.63	80	18.04
Middlesex	10.59	-4.92	68	15.51
Nantucket	3.32	-9.27	26	12.59
Norfolk	13.45	-2.02	87	15.47
Plymouth	12.03	-2.96	80	14.99
Suffolk	11.45	-3.53	76	14.98
Worcester	12.11	-4.42	73	16.53

MA 5-Month May 25-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	13.82	-3.34	81	17.16
Berkshire	20.54	-2.52	89	23.06
Bristol	19.63	0.91	105	18.72
Dukes	15.46	-1.56	91	17.02
Essex	16.05	-2.59	86	18.64

Franklin	21.65	-0.46	98	22.11
Hampden	23.09	1.40	106	21.69
Hampshire	23.64	1.65	108	21.99
Middlesex	18.11	-1.01	95	19.12
Nantucket	6.31	-9.54	40	15.85
Norfolk	21.38	2.31	112	19.07
Plymouth	19.97	1.38	107	18.59
Suffolk	18.85	0.30	102	18.55
Worcester	20.77	0.62	103	20.15

MA 6-Month Apr 25-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	18.48	-2.92	86	21.40
Berkshire	24.85	-2.12	92	26.97
Bristol	23.21	-0.14	99	23.35
Dukes	19.69	-1.63	92	21.32
Essex	20.07	-2.76	88	22.83
Franklin	25.91	-0.22	99	26.13
Hampden	27.10	1.28	105	25.82
Hampshire	27.79	1.78	107	26.01
Middlesex	22.06	-1.23	95	23.29
Nantucket	9.78	-10.33	49	20.11
Norfolk	25.16	1.61	107	23.55
Plymouth	23.84	0.65	103	23.19
Suffolk	22.53	-0.36	98	22.89
Worcester	25.26	1.01	104	24.25

MA 7-Month Mar 25-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	22.53	-3.67	86	26.20
Berkshire	28.15	-2.69	91	30.84
Bristol	27.42	-1.19	96	28.61
Dukes	24.00	-2.33	91	26.33
Essex	23.75	-3.72	86	27.47
Franklin	29.71	-0.35	99	30.06
Hampden	30.81	0.95	103	29.86
Hampshire	31.50	1.58	105	29.92
Middlesex	25.68	-2.01	93	27.69
Nantucket	12.68	-12.30	51	24.98
Norfolk	29.82	1.48	105	28.34
Plymouth	27.80	-0.74	97	28.54
Suffolk	26.86	-0.75	97	27.61
Worcester	29.21	0.74	103	28.47

MA 12-Month Oct 24-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	36.75	-10.99	77	47.74
Berkshire	41.82	-8.98	82	50.80
Bristol	43.35	-7.39	85	50.74
Dukes	37.94	-9.89	79	47.83
Essex	38.80	-9.20	81	48.00
Franklin	43.03	-7.20	86	50.23
Hampden	42.88	-6.91	86	49.79
Hampshire	44.15	-5.61	89	49.76
Middlesex	40.68	-7.15	85	47.83
Nantucket	21.41	-24.96	46	46.37
Norfolk	46.29	-3.31	93	49.60
Plymouth	44.02	-6.98	86	51.00
Suffolk	43.31	-5.26	89	48.57
Worcester	43.27	-5.13	89	48.40

MA 24-Month Oct 23-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	84.77	-10.83	89	95.60
Berkshire	92.33	-9.38	91	101.71
Bristol	99.70	-1.91	98	101.61
Dukes	87.42	-8.36	91	95.78
Essex	86.21	-9.91	90	96.12
Franklin	96.58	-3.99	96	100.57
Hampden	95.87	-3.82	96	99.69
Hampshire	97.33	-2.30	98	99.63
Middlesex	90.52	-5.26	95	95.78
Nantucket	57.36	-35.50	62	92.86
Norfolk	101.72	2.40	102	99.32
Plymouth	99.32	-2.81	97	102.13
Suffolk	92.73	-4.53	95	97.26
Worcester	96.53	-0.38	100	96.91

MA 36-Month Oct 22-Sep25

County	Rainfall	Departure	Percent	Normal
Barnstable	140.68	-2.66	98	143.34
Berkshire	150.98	-1.53	99	152.51
Bristol	158.63	6.28	104	152.35
Dukes	138.56	-5.05	96	143.61
Essex	146.28	2.16	101	144.12
Franklin	157.84	7.04	105	150.80
Hampden	157.14	7.66	105	149.48
Hampshire	159.53	10.14	107	149.39
Middlesex	154.64	11.03	108	143.61

Nantucket	97.65	-41.58	70	139.23
Norfolk	162.86	13.94	109	148.92
Plymouth	158.45	5.32	103	153.13
Suffolk	151.97	6.14	104	145.83
Worcester	160.66	15.35	111	145.31

How This Report Was Generated

Monthly precipitation totals by County are derived through a blend of observational data and gridded analysis techniques. Precipitation observations from multiple regional networks—including the Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS), the National Weather Service Cooperative Observer Program (COOP), and Automated Surface Observing Systems (ASOS)—are first quality-controlled and then interpolated to two separate grids using distinct methodologies:

- Barnes Interpolation, a smoothing technique that accounts for the spatial distribution of observations
- Inverse Distance Weighting (IDW), which estimates values based on proximity to known observations

These two interpolated grids are then combined with NOAA’s Stage IV precipitation analysis, a radar- and gauge-based dataset produced operationally by the National Weather Service. The three grids are averaged to produce a final observed precipitation field.

Using this gridded product, spatial averaging is performed over each County polygon to compute region-specific monthly totals through geographic information system (GIS) techniques.

Monthly precipitation normals (long-term averages) for each County are sourced directly from the NOAA Stage IV climatology dataset.

Note: COOP and ASOS stations are official National Weather Service observation networks. CoCoRaHS is a volunteer-driven network that provides high-resolution, local-scale precipitation reports.