

NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) Boston/Norton MA	
		REPORT FOR: MONTH YEAR February 2021	
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		SIGNATURE Nicole M. Belk Senior Service Hydrologist	
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		DATE March 5, 2021	

When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).

An X inside this box indicates that no flooding occurred within this hydrologic service area.

...Following Improvement in Both Precipitation and Groundwater Levels, Drought Advisory Ends in Rhode Island...

Liquid equivalent precipitation during February ranged from 2.5 to 4 inches across much of southern New England, with higher totals of 4 to 6+ inches across portions of RI and southeast MA including the Cape and Islands. This precipitation was within an inch of normal across much of the region. Exceptions follow. Precipitation was an inch or more above normal mainly in portions of southeast MA, south coastal RI, and Block Island. Precipitation was more than an inch below normal in portions of the Connecticut River Valley in MA. Temperatures for the month generally averaged within a degree or so from normal across the region. Table 1 provides more details for major climate sites. Maps 1 and 2 depict precipitation and departure from normal precipitation for the area.

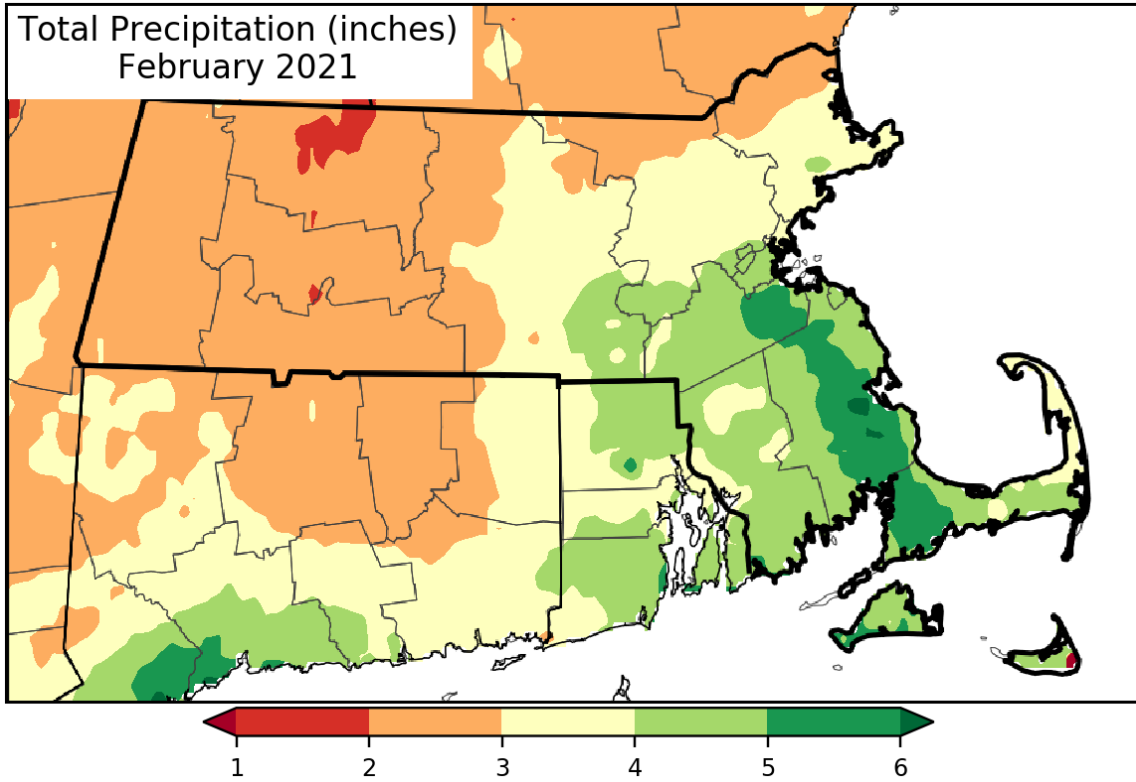
<i>Location</i>	<i>February Precipitation (Inches)</i>	<i>Precipitation Departure from Normal (Inches)</i>	<i>Temperature Departure from Normal (Degrees F)</i>
<i>Boston</i>	3.05	-0.20	-0.9
<i>Worcester</i>	3.18	-0.05	+0.7
<i>Providence</i>	3.49	+0.20	+0.4
<i>Hartford</i>	3.35	+0.46	-1.1

Table 1. February 2021 precipitation, precipitation departure from normal, and temperature departure from normal, for major climate sites within southern New England. Precipitation totals include rainfall and melted snow. Information is preliminary.

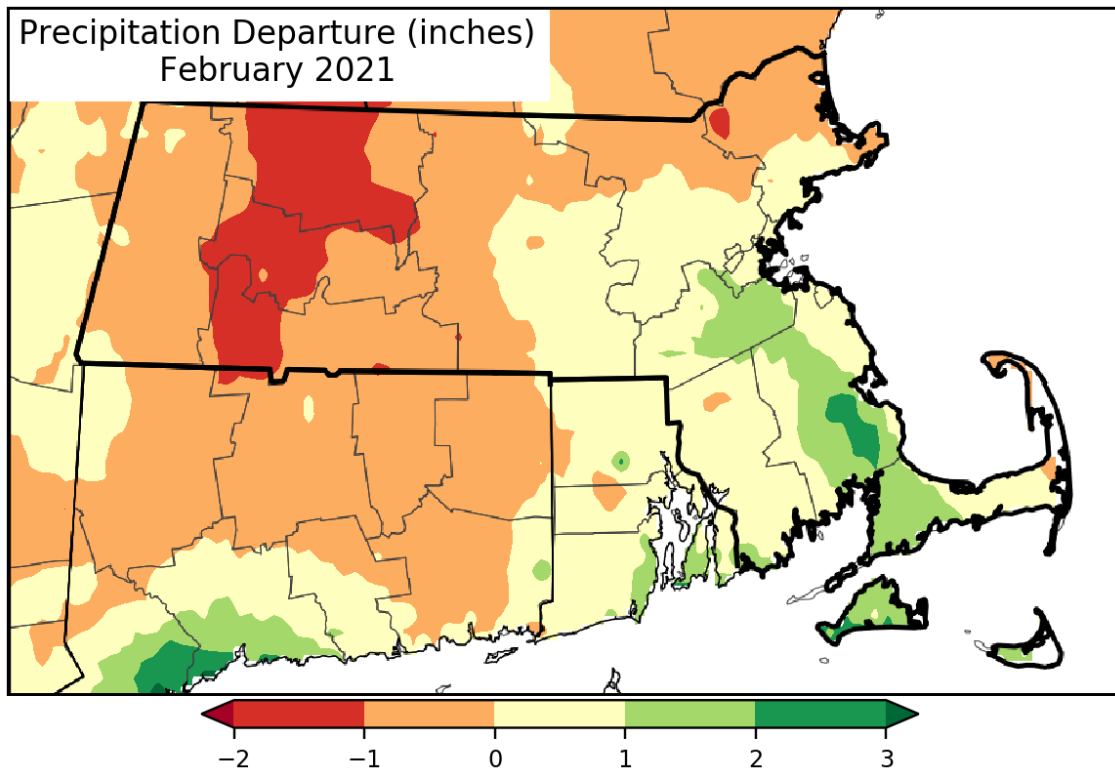
RI State Drought Declaration Update

During early February, a Drought Advisory remained in place across Rhode Island due to the dry conditions in the summer and fall of 2020. Normal to above normal precipitation from November 2020 to January 2021 allowed groundwater levels to return to normal for a second consecutive month (December 2020 and January 2021), a key requirement for the State to return to normal conditions as outlined in the document Rhode Island Water 2030. The State's Drought Steering Committee convened on February 9th and recommended that the State return to normal conditions. On February 12th, Governor Raimondo rescinded the Statewide Drought Advisory, allowing a return to normal conditions.

The US Drought Monitor depicted southern New England in normal conditions through the month of February.



Map 1: February 2021 precipitation for southern New England. Precipitation includes rainfall and melted snowfall. From the Northeast Regional Climate Center.



Map 2: February 2021 precipitation departure from normal for southern New England. From the Northeast Regional Climate Center.

Streamflow and Groundwater:

Streamflows across southern New England were mostly in the normal range at the end of February. Groundwater levels were mainly in the normal range, with a few wells above or below normal.

Rhode Island Precipitation
National Weather Service Boston/Norton, MA
Preliminary Precipitation Data (inches) by Drought Region
Past 12 to 36 months ending February 2021
Includes CoCoRaHS Data

RI 1 month February 2021	Rainfall	Departure	Percent	Normal
Northwest	3.43	-0.53	87	3.96
Northeast	3.57	0.02	101	3.55
Central West	3.75	0.15	104	3.60
Central East	3.50	0.21	106	3.29
Eastern	3.66	-0.11	97	3.77
Southern	4.30	0.61	117	3.69
New Shoreham	6.84	3.15	185	3.69

RI 2 month Jan-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	6.22	-2.02	75	8.24
Northeast	6.06	-1.56	80	7.62
Central West	6.49	-1.18	85	7.67
Central East	5.73	-1.42	80	7.15
Eastern	5.67	-1.95	74	7.62
Southern	6.69	-1.11	86	7.80
New Shoreham	9.20	1.40	118	7.80

RI 3 month Dec 20-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	14.40	1.32	110	13.08
Northeast	15.96	3.60	129	12.36
Central West	17.34	5.07	141	12.27
Central East	15.97	4.60	140	11.37
Eastern	12.96	1.02	109	11.94
Southern	16.26	3.75	130	12.51
New Shoreham	17.34	4.83	139	12.51

RI 6 month Sep 20-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	27.01	0.11	100	26.90
Northeast	26.46	0.72	103	25.74
Central West	28.77	3.32	113	25.45
Central East	27.45	3.72	116	23.73
Eastern	23.83	-0.10	100	23.93
Southern	28.32	2.28	109	26.04
New Shoreham	31.54	5.50	121	26.04

RI 12 month Mar 20-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	48.73	-4.97	91	53.70
Northeast	48.33	-3.09	94	51.42
Central West	49.30	-1.47	97	50.77
Central East	47.10	-0.08	100	47.18
Eastern	40.54	-8.00	84	48.54
Southern	48.09	-4.78	91	52.87
New Shoreham	48.71	-4.16	92	52.87

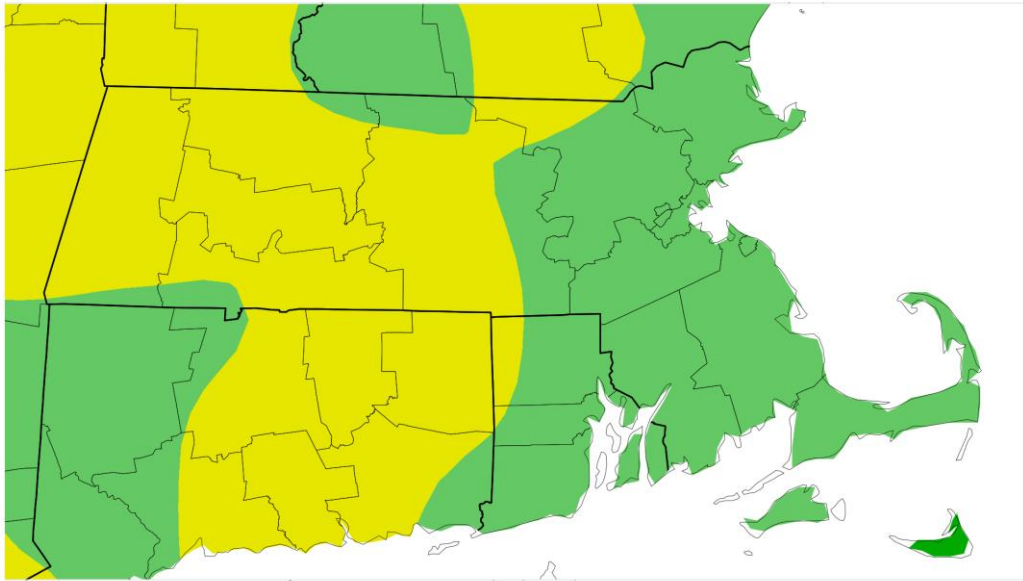
RI 24 month Mar 19-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	105.91	-1.49	99	107.40
Northeast	99.80	-3.04	97	102.84
Central West	105.26	3.72	104	101.54
Central East	97.12	2.76	103	94.36
Eastern	91.95	-5.13	95	97.08
Southern	106.84	1.10	101	105.74
New Shoreham	98.69	-7.05	93	105.74

RI 36 month Mar 18-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	174.71	13.61	108	161.10
Northeast	166.62	12.36	108	154.26
Central West	173.11	20.80	114	152.31
Central East	161.91	20.37	114	141.54
Eastern	147.83	2.21	102	145.62
Southern	166.77	8.16	105	158.61
New Shoreham	154.38	-4.23	97	158.61

RI 4 month Nov 20-Feb 21	Rainfall	Departure	Percent	Normal
Northwest	20.49	2.45	114	18.04
Northeast	19.96	2.81	116	17.15
Central West	21.46	4.44	126	17.02
Central East	19.94	4.06	126	15.88
Eastern	17.12	0.85	105	16.27
Southern	20.93	3.37	119	17.56
New Shoreham	23.10	5.54	132	17.56

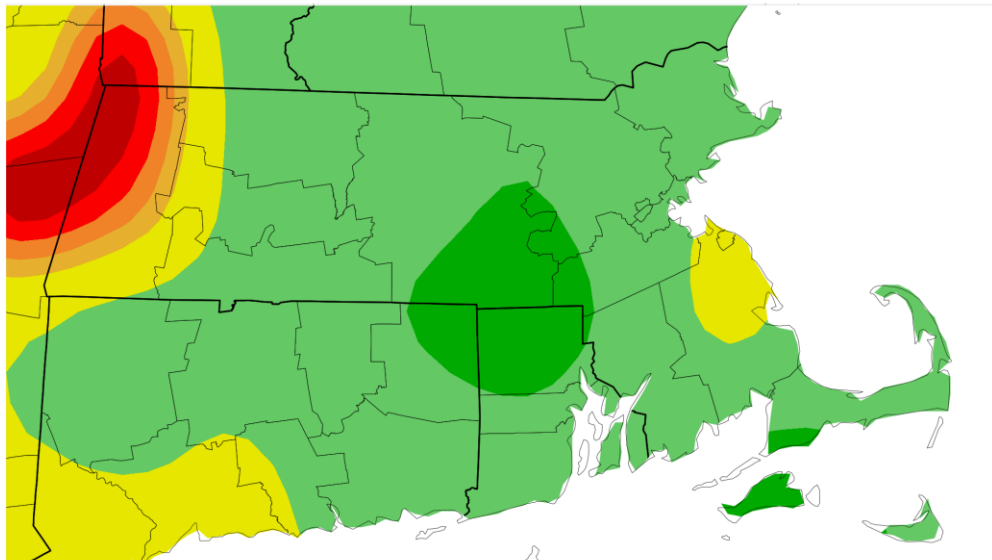
RI 5 month Oct 20-Jan 21	Rainfall	Departure	Percent	Normal
Northwest	25.76	2.95	113	22.81
Northeast	25.37	3.57	116	21.80
Central West	27.70	6.23	129	21.47
Central East	26.17	6.36	132	19.81
Eastern	22.79	2.59	113	20.20
Southern	27.24	5.42	125	21.82
New Shoreham	29.84	8.02	137	21.82

Monthly SPI
2/1/2021 - 2/28/2021



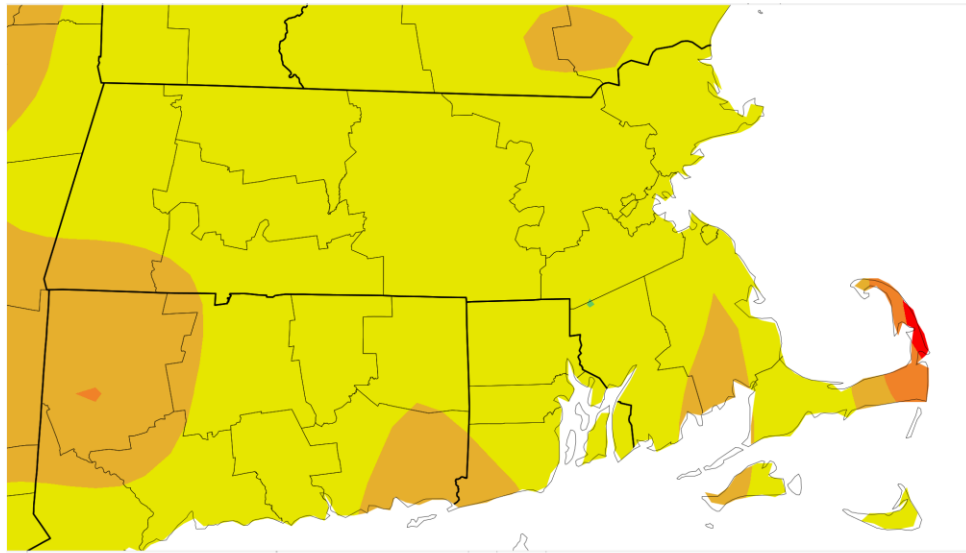
Generated 3/2/2021 at HPRCC using provisional data. NOAA Regional Climate Centers
Map 1. February 2021 SPI. From the NOAA Regional Climate Centers.

3-Month SPI
12/1/2020 - 2/28/2021



Generated 3/2/2021 at HPRCC using provisional data. NOAA Regional Climate Centers
Map 2. Three-Month SPI ending February 2021. From the NOAA Regional Climate Centers.

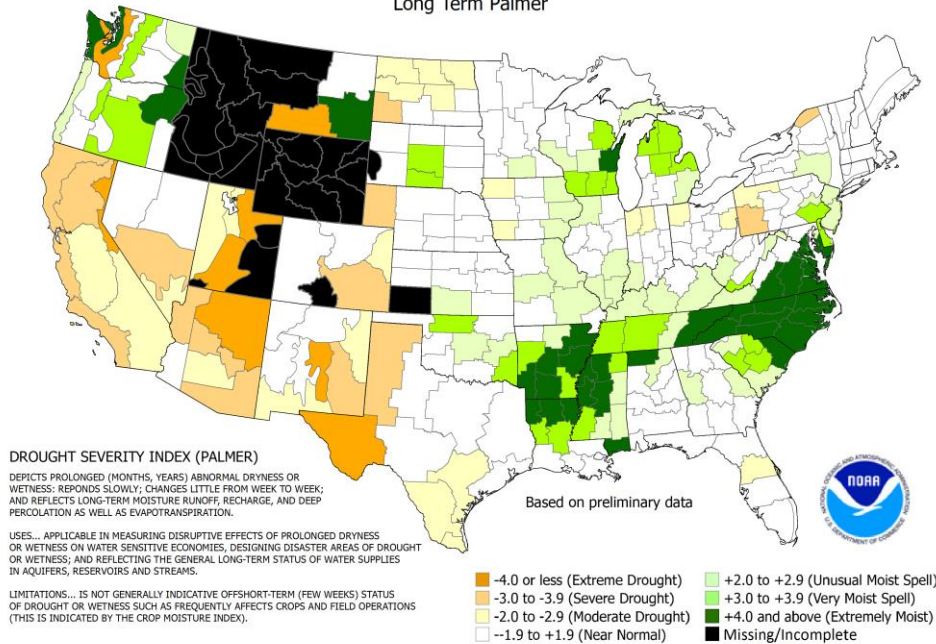
12-Month SPI 3/1/2020 – 2/28/2021



Generated 3/2/2021 at HPRCC using provisional data. NOAA Regional Climate Centers

Map 3. Twelve month SPI ending February 2021. From the NOAA Regional Climate Centers.

Drought Severity Index by Division Weekly Value for Period Ending Feb 27, 2021 Long Term Palmer



Map 4. Palmer Drought Index from the Climate Prediction Center, NOAA, dated 2/27/21.
RI Palmer is in the Normal range, +1.47.

**U.S. Drought Monitor
Rhode Island**

March 2, 2021
(Released Thursday, Mar. 4, 2021)
Valid 7 a.m. EST



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>

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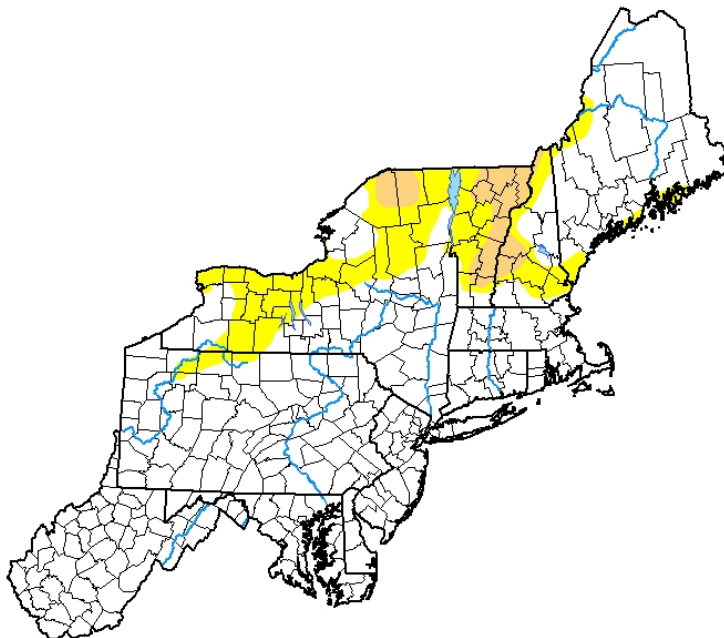


droughtmonitor.unl.edu

Map 5. US Drought Monitor for Rhode Island. valid 3/2/2021.

**U.S. Drought Monitor
Northeast**

March 2, 2021
(Released Thursday, Mar. 4, 2021)
Valid 7 a.m. EST



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>

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Map 6. US Drought Monitor for the Northeast US, valid 3/2/2021.