

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 December 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 January 7th 2022

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.

December 2021 precipitation was below normal across most of southern New England. Liquid equivalent precipitation ranged from 1.5 to 3 inches across north central to northeast CT, all of RI, and southeast MA including the Cape and Islands. This precipitation was 1 to 3 inches below normal. Interior and northeast MA precipitation totals were higher, ranging from 3 to around 4 inches. These higher totals ranged from 1 inch below normal to around normal.

Temperatures averaged 3 to 5.5 degrees above normal for the month, making this one of the warmest Decembers on record. Because of the anomalous warmth, the majority of December's precipitation fell as rain.

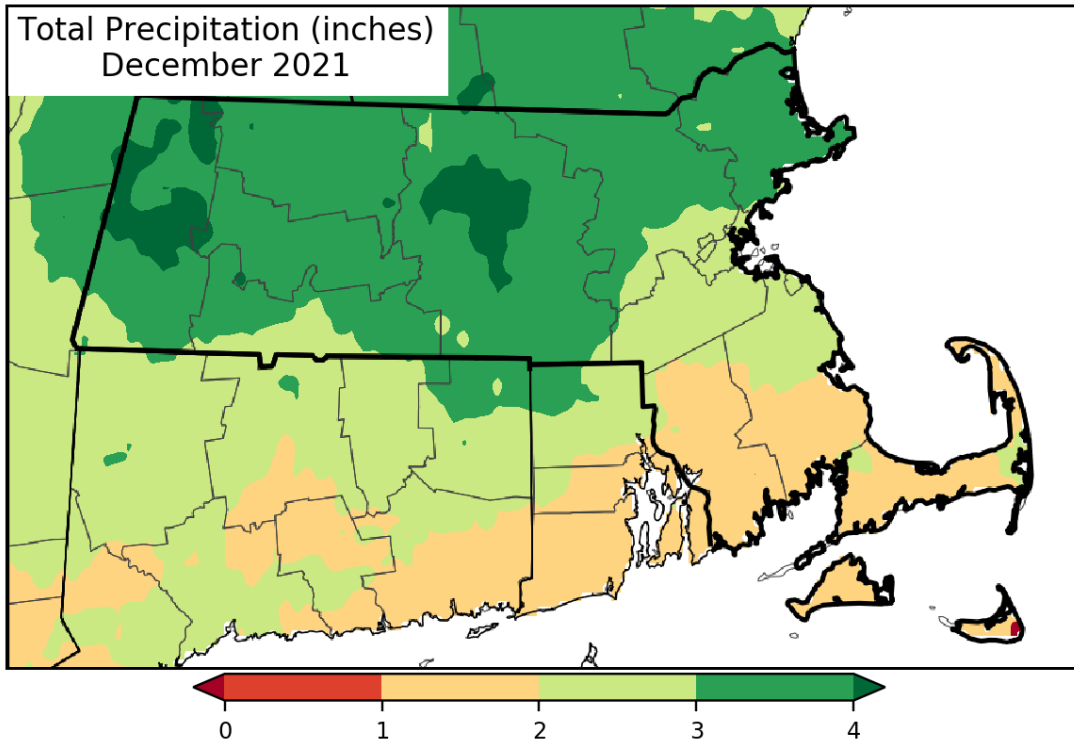
No freshwater flooding occurred within NWS Boston/Norton's Hydrologic Service Area. More details for major climate sites in southern New England are included in Table 1. In addition to precipitation details, temperature departure from normal and ranking with respect to warmest December on record are also provided.

<i>Location</i>	<i>December Precipitation (Inches)</i>	<i>Precipitation Departure from Normal (Inches)</i>	<i>Snowfall (Inches)</i>	<i>Temperature Departure from Normal (Degrees F)</i>	<i>Ranking for Warmest December on Record</i>
<i>Boston</i>	2.45	-1.85	0.4	+3.5	14 th (tie)
<i>Worcester</i>	3.59	-0.69	2.1	+4.7	7 th
<i>Providence</i>	1.72	-2.93	2.6	+4.4	3 rd
<i>Hartford</i>	2.95	-1.13	4.2	+5.4	3 rd (tie)

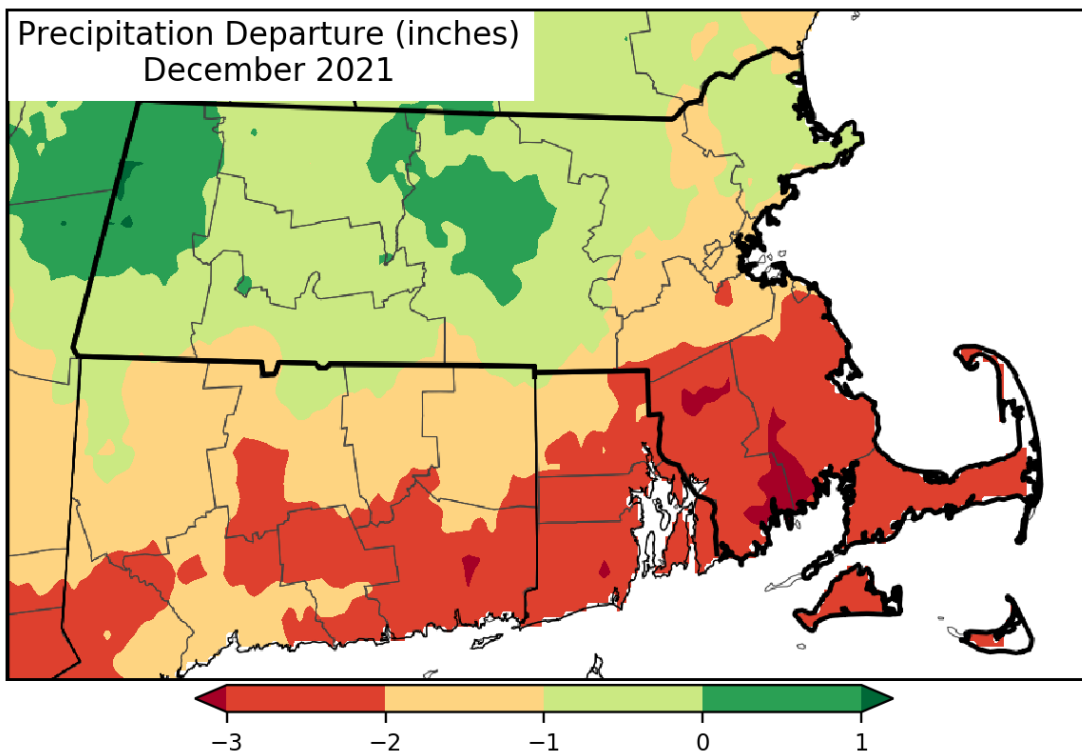
Table 1. December 2021 precipitation and departure from normal, snowfall, temperature departure from normal, and ranking for warmest December on Record. Details are for major climate sites within southern New England. Information is preliminary.

Streamflow and Groundwater

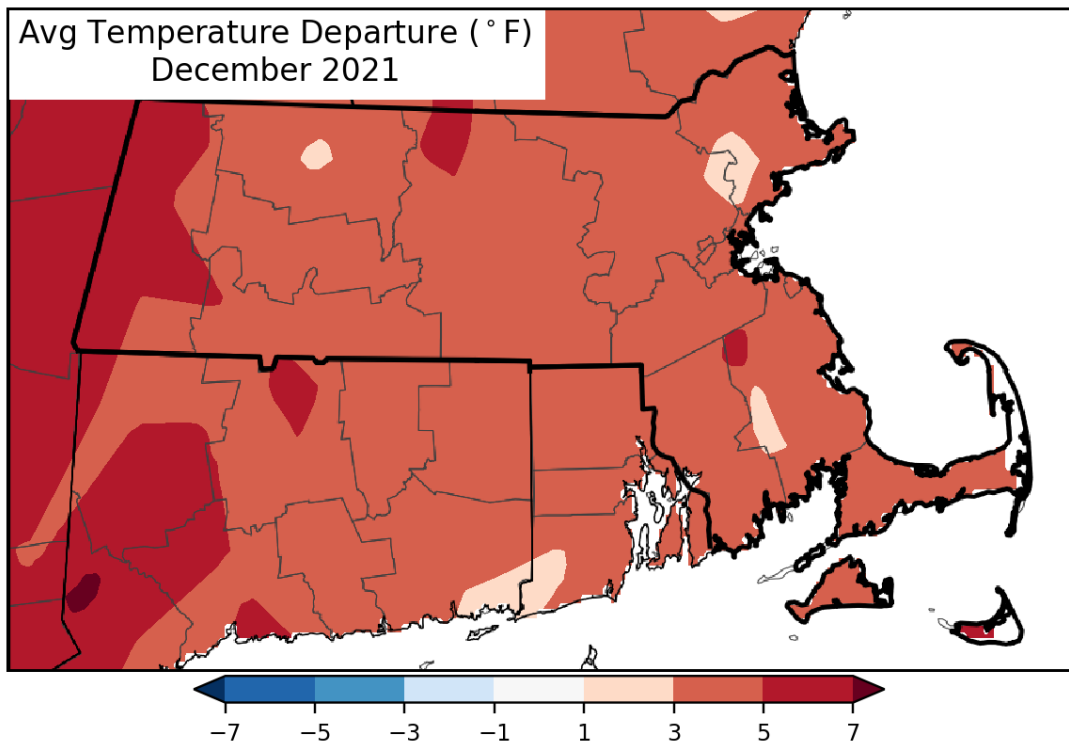
USGS stream gages in MA and northern CT were running normal to above normal across most of southern New England. The exception was towards the southern coast of New England, where streamflow was normal to below normal. Most area USGS groundwater wells in MA and northern CT were at normal levels, with a few wells higher than normal or below normal. Across RI, groundwater wells showed a mix of normal to below normal levels.



Map 1: December 2021 liquid equivalent precipitation for southern New England. From the Northeast Regional Climate Center.



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



Map 3. Average temperature departure from normal across southern New England for December 2021.
From the Northeast Regional Climate Center.