



Monthly Drought Update

Hot Topics!

- Water systems and municipalities should take measures to prepare for a potential 2021 drought. See the [DES Drought Management website](#) for guidance.
- Applications are still being accepted by the [Low-Income Residential Drought Assistance Program](#).
- Event: [March 23, 2021, NEWWA Virtual Speaker Series, The 2020 Drought: A Regional Perspective](#)

Summary

Below normal stream flows and groundwater levels coupled with low confidence in the monthly drought predictions and uncertain precipitation forecasts, means careful tracking of drought conditions must continue.

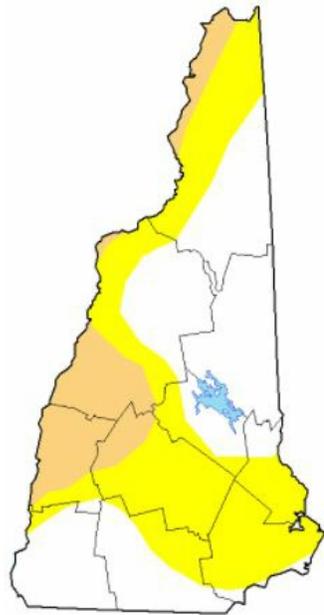
In February, cold temperatures, as well as just enough precipitation and snowpack resulted in no change to drought designation in the 15% of the state that is experiencing "moderate drought (D1)" and little change to the approximate 40% of the state experiencing "abnormally dry" conditions.

Hydrological conditions across the state indicate drought recovery has weakened as the winter has progressed:

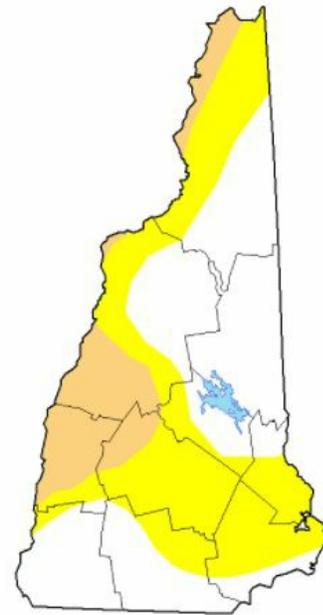
- Groundwater levels dropped in February and are below normal or lower across much of the state, with the exception of south central and southeast NH, which have generally normal levels.
- Stream flows are also below normal in much of the state, including in the western half of the state within the Connecticut River watershed and parts of the Merrimack River watershed, as well as within the Piscataqua River watershed in the seacoast region.

Equal chances of above normal, normal, or below normal precipitation are predicted through March, meaning a prediction on the impact to drought conditions cannot be made with confidence.

The U.S. Seasonal Drought Outlook is promising, with a moderate confidence in drought removal by the end of May, although the prediction is based on the Seasonal Precipitation Outlook, which favors above average precipitation in northern New Hampshire, but equal chances of above normal, normal, or below normal precipitation in the majority of the state.



« January 26, 2021 »



« March 2, 2021 »

- Since the end of January, 14.93% of NH has been experiencing moderate drought (D1) conditions.
- Currently 37.52% of NH is experiencing abnormally dry conditions. Since the end of January, abnormally dry conditions rescinded by 1.27% in the southeast corner of the state.

Intensity:



Water Resource Updates

[February NH Geological Survey Monthly Groundwater Level Report](#)

- At the end of February, the majority of the 31 wells in the statewide groundwater level monitoring network showed a drop in levels.
- Wells in south-central and southeast New Hampshire were generally normal to high for February.
- Most of the wells outside of south-central and southeast New Hampshire were below their normal monthly range.

February 2021 Groundwater Levels

Counties

Well Type

○ Overburden

◇ Bedrock

Monthly Status

High

Above normal

Normal

Below Normal

Low

Not Analyzed

USDM Drought Areas 02/23/2021

Drought Intensity

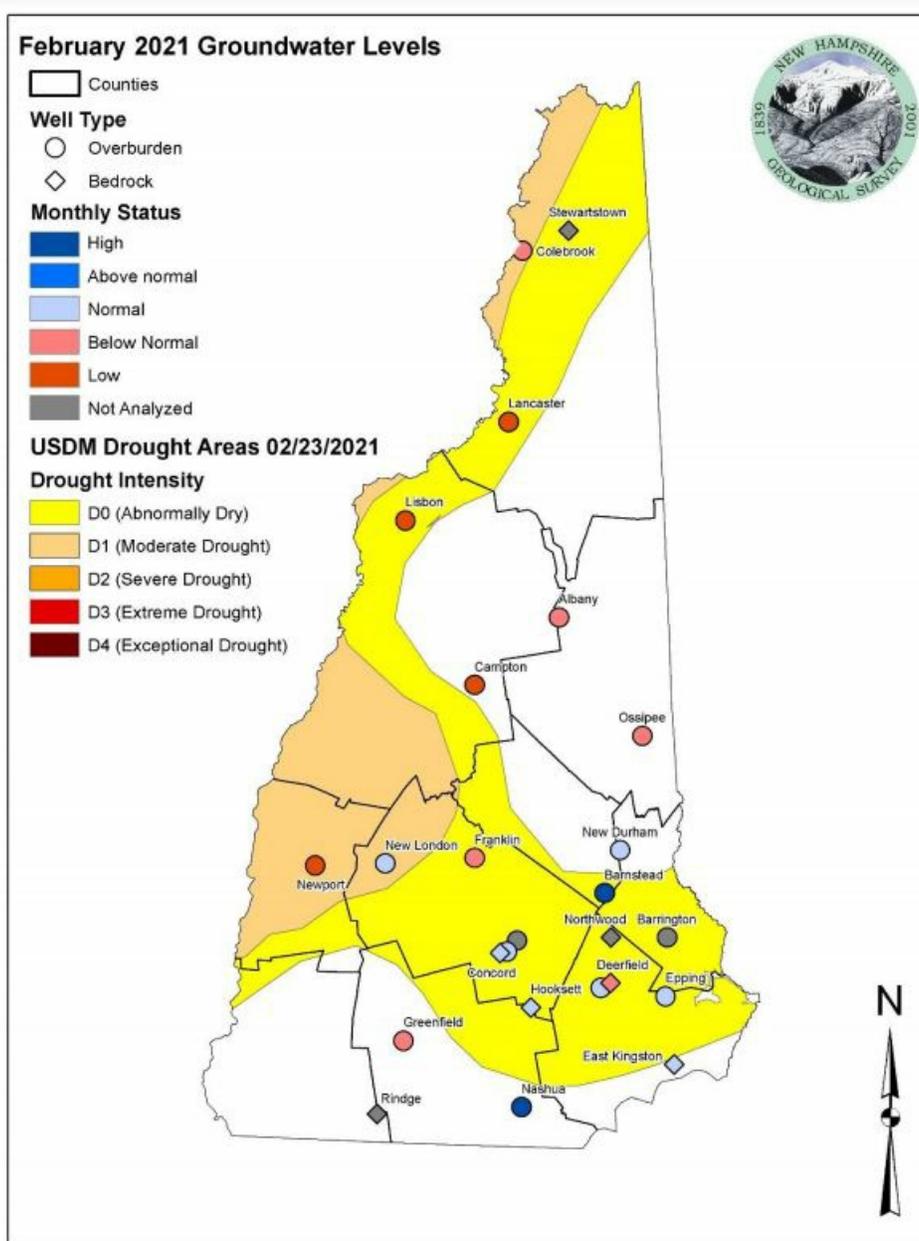
D0 (Abnormally Dry)

D1 (Moderate Drought)

D2 (Severe Drought)

D3 (Extreme Drought)

D4 (Exceptional Drought)

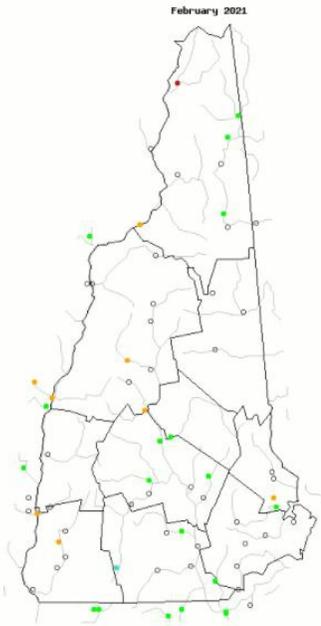


[NH USGS WaterWatch Stream Flows](#)

February stream flows were normal to below normal across the state. Below normal stream flows encompass the Connecticut River watershed and parts of the Merrimack River watershed located in the western half of the state and the Piscataqua River watershed in the coastal region. (Note* Data is not available for many streams across the state, as gauges freeze during the winter.)

Map of monthly streamflow compared to historical streamflow for the month of the year (New Hampshire)

New Hampshire or Water-Resources Regions



USGS

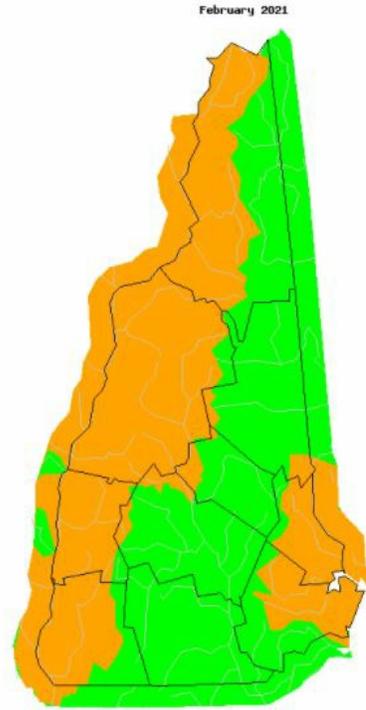
Search USGS streamgage

Choose a data retrieval option and select a location on the map
 List of all stations Single station Nearest stations Peak flow

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

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New Hampshire or Water-Resources Regions

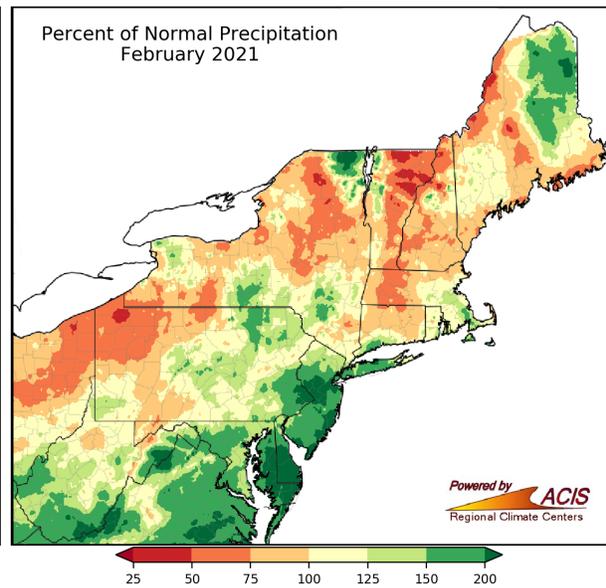
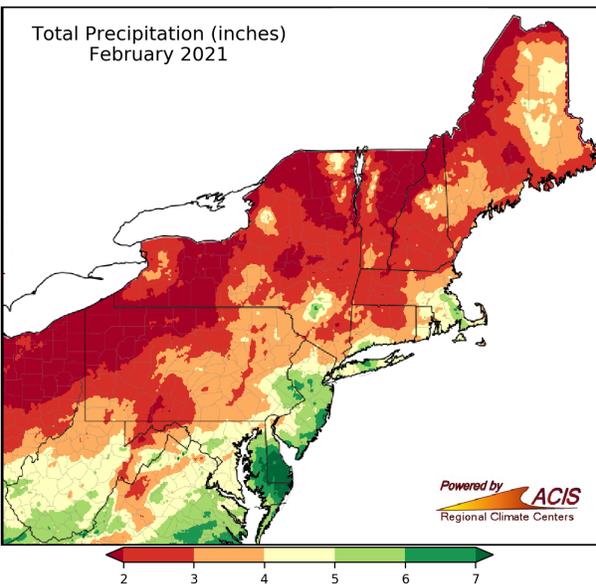


USGS

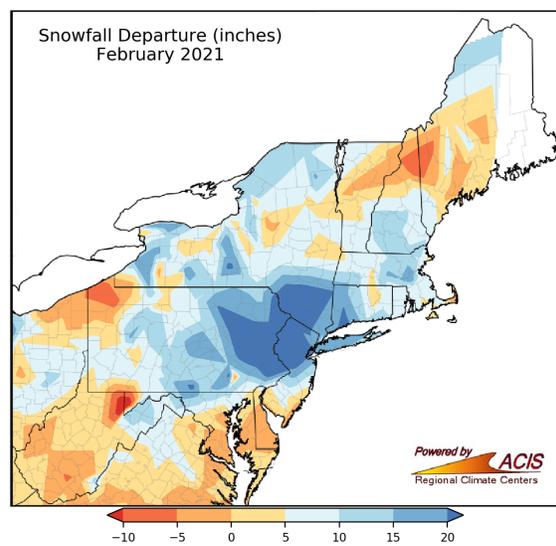
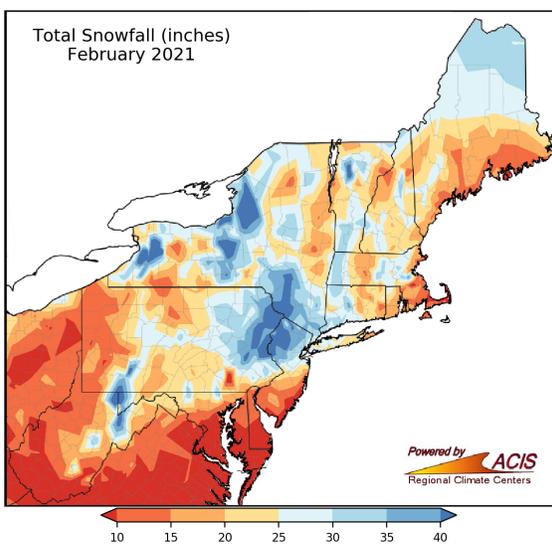
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Precipitation and Snow Departures

In February, the majority of the state received between 1" to 3" of precipitation, which ranged from 50%-100% of normal.



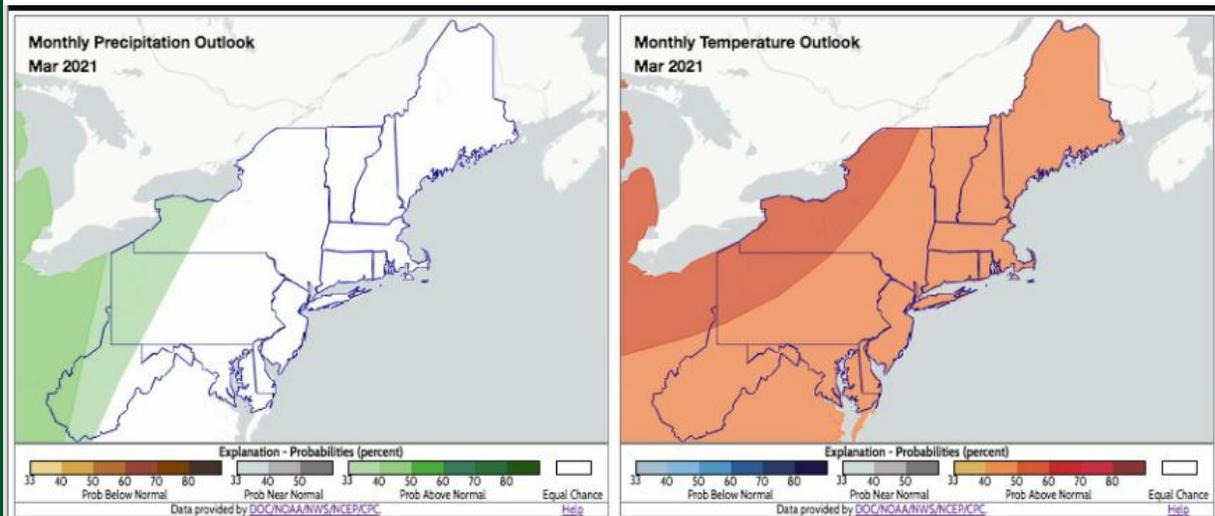
In February, the majority of the state received between 15" to 30" of snow. In the southern 2/3rds of the state, the amount received was 5" to 15" above normal. In the upper 1/3rd of the state the amount received ranged from 10" below normal to 5" above normal.



Precipitation and Temperature Forecasts and Outlooks

The monthly precipitation outlook for March predicts equal chances for above normal, normal, or below normal precipitation across the state.

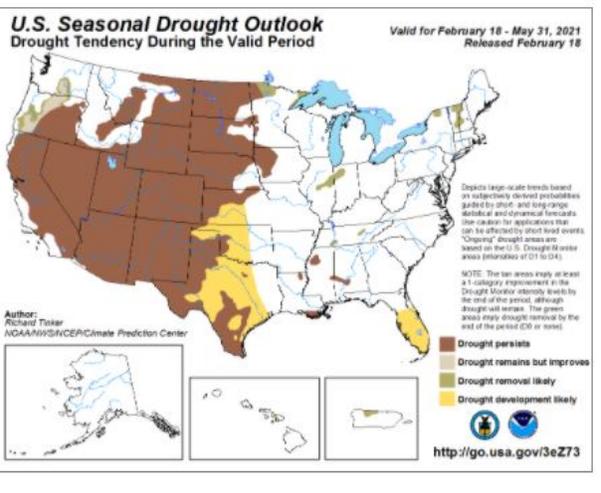
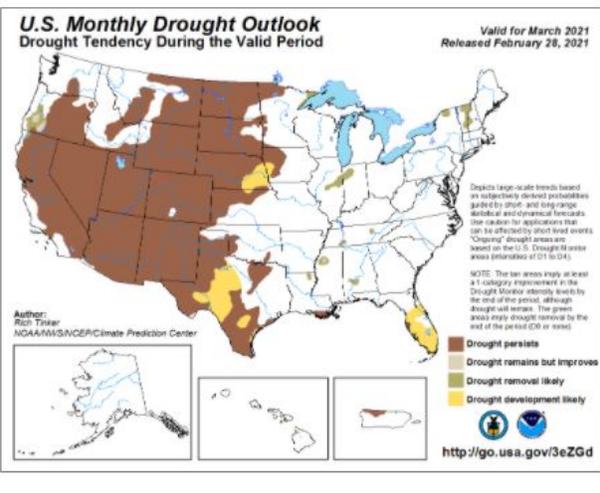
Above normal temperatures are favored across the state.



Monthly and Seasonal Drought Outlooks

The U.S. Monthly Drought Outlook favors drought removal, although the forecast confidence is considered low. Confidence is considered low as the precipitation outlook favors equal chances of above normal, normal, or below normal precipitation, but leans toward improvement as the snowpack is considered decent, there are no expected variations in climatology, and there are no drought impacts (common in winter).

The U.S. Seasonal Drought Outlook also favors drought removal and has a moderate confidence, based on the [Seasonal Precipitation Outlook](#), although this outlook only favors above normal precipitation up north in Coos County while equal chances for above normal, normal, or below normal precipitation is favored in the rest of the state.



Additional Resources

- Regional Forecast - [National Weather Service Forecast Discussion](#)
- Groundwater Level Reports - [NH Geological Survey](#)
- Long Term Precipitation Deficits - [Northeast River Forecast Center](#)

Visit the NHDES Drought Management Webpage