



Drought Update

September 9, 2022

Summary

- Over the month of August, generally the upper 50% of the state was downgraded from a drought designation to abnormally dry conditions and drought became more severe in parts of the lower half of the state. The drought intensified the most along a portion of New Hampshire's southern border. Recent rain improved conditions along the border, and the area has been downgraded from extreme drought (D3) to severe drought (D2).
- Currently, the lower half of the state is experiencing moderate drought (D1) or severe drought (D2) and the upper half of the state is experiencing abnormally dry or normal conditions.
- Groundwater monitoring wells in Southeastern New Hampshire, the Connecticut River Valley and the White Mountains Region indicate groundwater levels continue to be low to below normal (0 to 25th percentile). Groundwater levels in northern Coos and Merrimack Counties and western Hillsborough County are at normal to above normal levels.
- The rain received this past week provided a much-needed relief pulse to some of the state's rivers; however, the groundwater deficit suggests that the recent relief may be short lived.
- The monthly precipitation outlook leans toward below normal precipitation and the three-month precipitation outlook indicates an equal chance of above, below, or near normal precipitation. These outlooks do not provide a strong indication that the state will receive enough precipitation to improve drought conditions.
- The monthly temperature outlook leans towards above normal temperatures and the three-month temperature outlook indicates above normal temperatures are likely. The warmer temperatures may lead to more evaporation than normal during this time of year and less recharge of water supplies.

- The weekly forecast indicates a dry weekend with a likelihood of showers on Tuesday.

The Message

It is going to take much more rain than received this past week to alleviate drought conditions and precipitation outlooks do not provide any reassurance.

Community water systems and municipalities experiencing drought, as indicated on the U.S. Drought Monitor map, should leave outdoor water restrictions in place. The level of restriction shall be based on the information above, known local impacts and if known, current availability of water supply. NHDES recommends the following:

- In all areas experiencing drought, limit landscape watering to before 7am and after 8pm.
- In areas of moderate drought, reduce landscape watering to even and odd days based on address.
- In areas of severe drought, limit landscape watering to two days a week and limit unnecessary water use such as washing cars and driveways and filling pools.
- Despite the level of drought, in areas with much below or low groundwater levels, ban outdoor water use with the exception of hand watering vegetable gardens.

Community water systems, as well as municipalities implementing lawn watering restrictions within town boundaries pursuant to [RSA 41:11-d](#), should report restrictions to NHDES using the [Water Use Restriction Reporting Form](#).

Drought Conditions and Water Use Restrictions

[U.S. Drought Monitor](#)

This week's drought monitor indicates the following:

- 24.3% of the state is experiencing "severe drought".
- 23.67% of the state is experiencing "moderate drought".
- 43.95% of the state is experiencing "abnormally dry" conditions.
- 8.07% of the state is experiencing normal conditions.

Water Use Restrictions List

- One hundred and seven community water systems and eight municipalities have outdoor water use restrictions in place, impacting approximately 324,100 people. One hundred and two restrictions are mandatory, and thirteen restrictions are voluntary.

Reported Water Use Restrictions

Last Update: 9/8/2022

Legend


 County Boundary

 Town Boundary

Drought Condition


 Abnormally Dry

 Moderate Drought

 Severe Drought


 Extreme Drought

Municipality Status

 Voluntary Restriction

 Mandatory Restriction

Water System Status

 Voluntary Restriction

 Mandatory Restriction

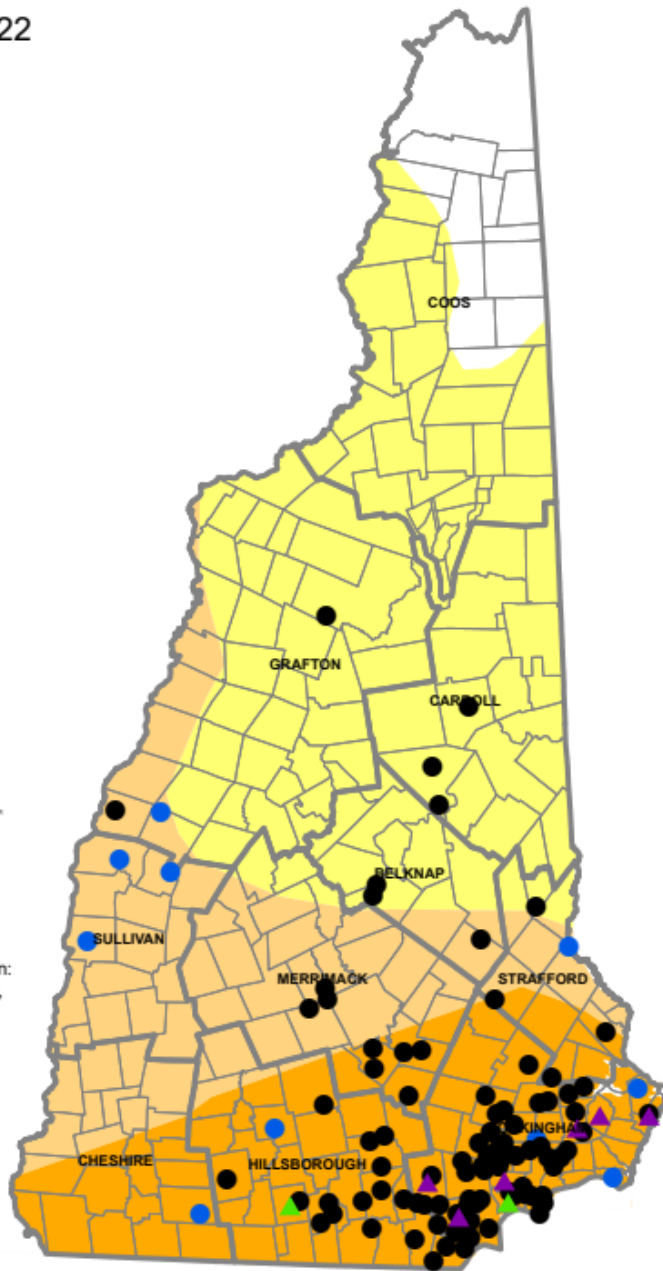


0 5 10 20
Miles



Drought conditions based on United States Drought Monitor <https://droughtmonitor.unl.edu/>
Produced by a partnership between: National Drought Mitigation Center, U.S. Department of Agriculture, & National Oceanic and Atmospheric Administration

Disclaimer: The status of water use restrictions is based on information submitted to the New Hampshire Department of Environmental Services and may not be comprehensive.



Hydrological Conditions

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

Sampling of the New Hampshire Groundwater Monitoring Network wells indicates that at the end of August, groundwater levels were as follows:

- Groundwater levels in southeastern New Hampshire, the Connecticut River Valley, and the White Mountains Region continue to be at low to below normal (0 to 25th percentile).
- Groundwater levels in northern Coos and Merrimack Counties and western Hillsborough County are at normal to above normal levels for the month of August.

August 2022 Groundwater Levels and August 2022 Percent of Normal Precipitation



Counties

Well Type

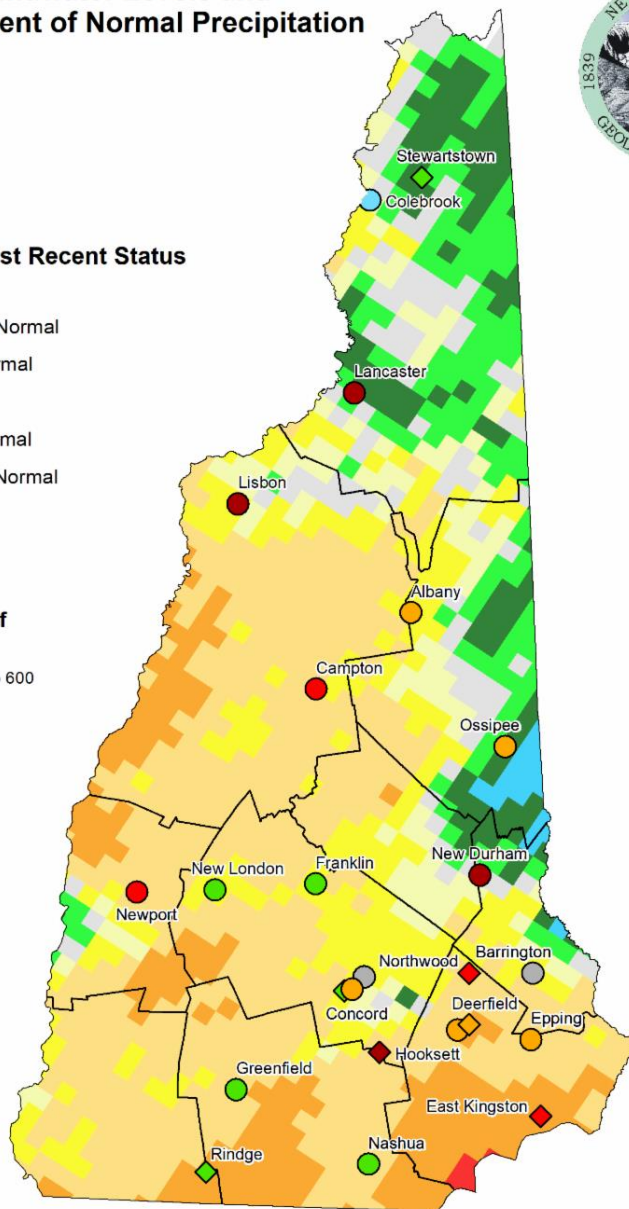
- Overburden
- ◇ Bedrock

Percentile Class, Most Recent Status

- High
- >90, Much Above Normal
- 75 - 90, Above Normal
- 25 - 75, Normal
- 10 - 25, Below Normal
- <10, Much Below Normal
- Low
- Not Analyzed

August 2022 Percent of Normal Precipitation

- Greater than or equal to 600
- 400 to 600
- 300 to 400
- 200 to 300
- 150 to 200
- 125 to 150
- 110 to 125
- 100 to 110
- 90 to 100
- 75 to 90
- 50 to 75
- 25 to 50
- 10 to 25
- 5 to 10
- 0 to 5
- Missing Data

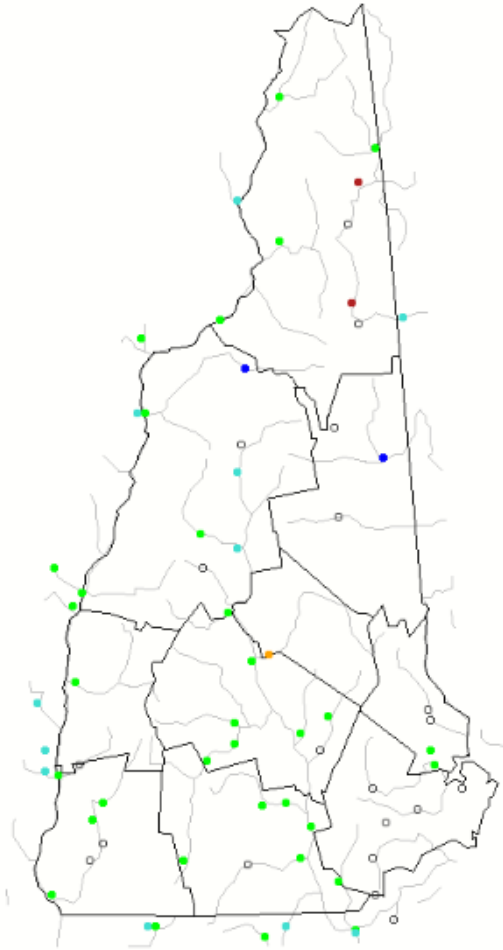


Percent of Normal Precipitation data retrieved from:
 National Weather Service - Advanced Hydrologic Prediction Service
<https://water.weather.gov/precip/download.php>

Map of daily streamflow compared to historical streamflow for the day of the year (New Hampshire)

New Hampshire or Water-Resources Regions All Days

Thursday, September 08, 2022



Search USGS streamgage

Choose a data retrieval option and select a location on the map

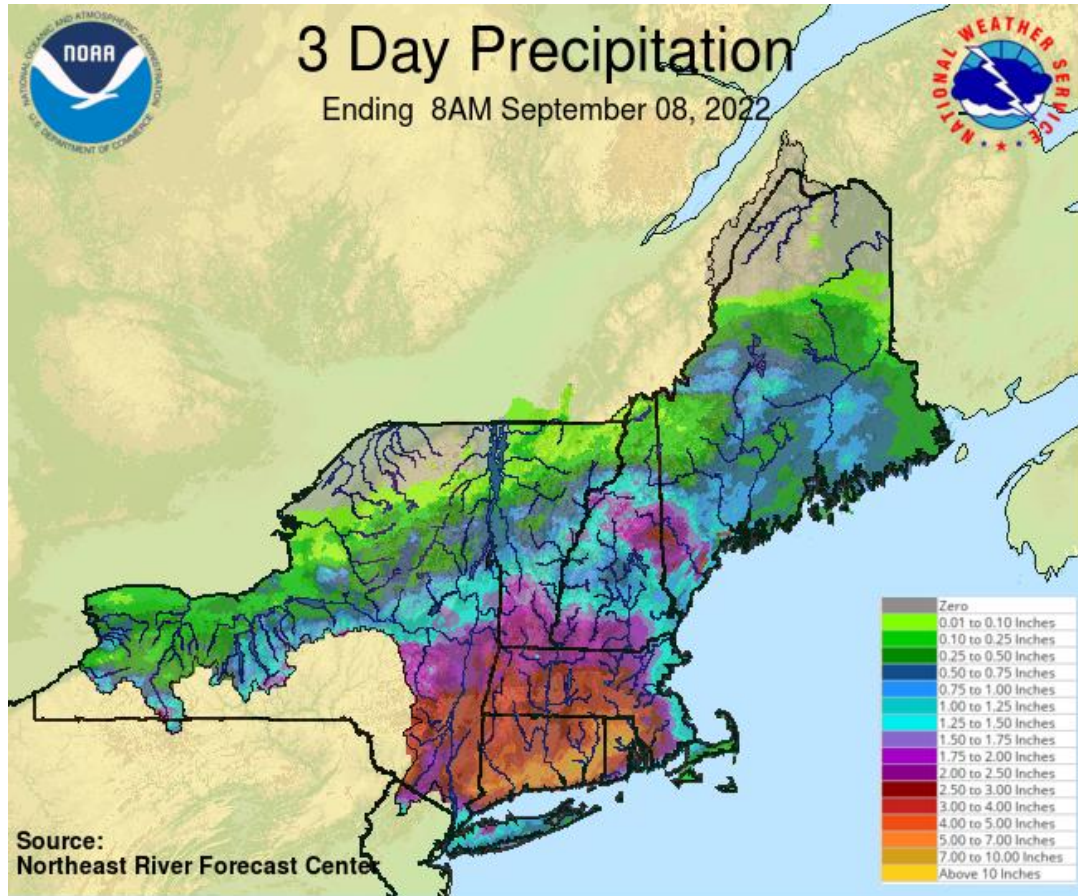
- List of all stations Single station Nearest stations Peak flow

Explanation - Percentile classes							
<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Precipitation Amounts

Observed Precipitation Received

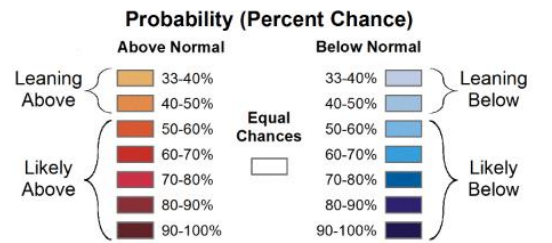
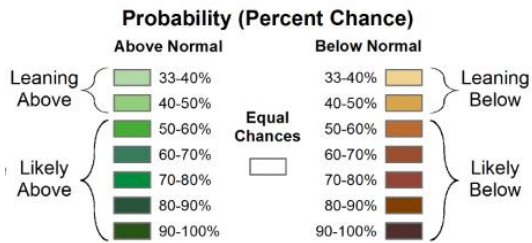
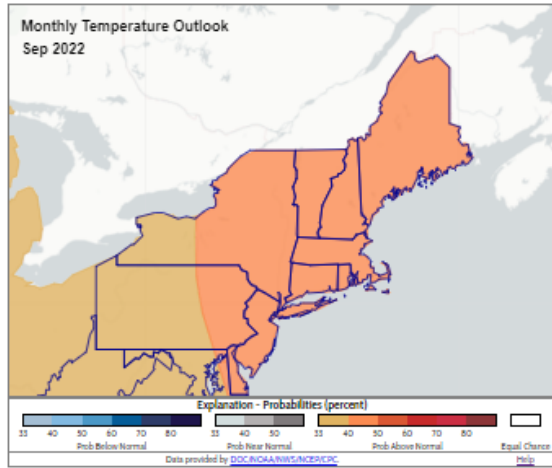
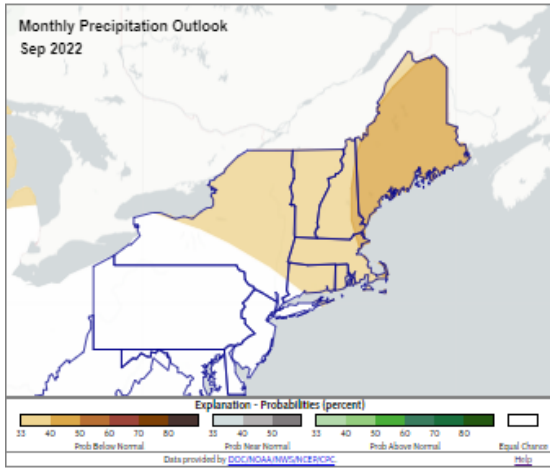
Precipitation data for this past week's rain indicates Coos County received between 0.01" and 0.25" of precipitation. The majority of the state located south of Coos County received 0.75" to 2.5" of rain.



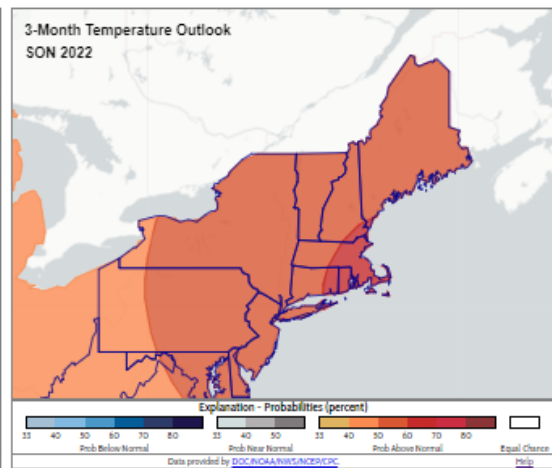
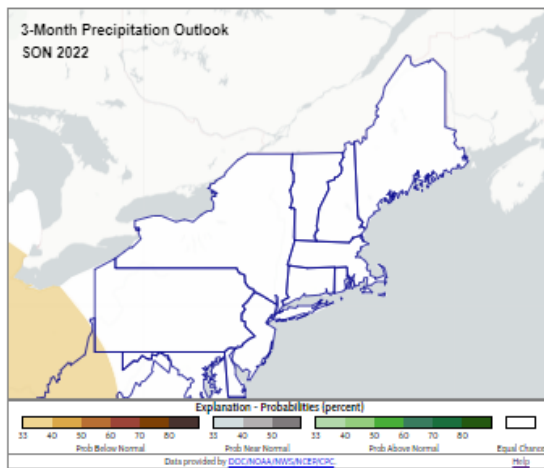
Forecasts and Outlooks

Precipitation and Temperature Outlooks

September Precipitation and Temperature Outlook



Seasonal Precipitation and Temperature Outlook For September, October and November



Additional Resources

Regional Forecast - [National Weather Service Forecast Discussion](#)

[Visit the NHDES Drought Management Webpage](#)

NH Department of Environmental Services | 29 Hazen Drive, Concord, NH 03302

Sent by stacey.herbold@des.nh.gov