

## The 2001-2002 Drought in Vermont

21 February, 2002

Drought conditions persisted across Vermont, much of New England and the mid-Atlantic in February 2002. Dry conditions began over a year before, even in the midst of large snowfall accumulations in the late winter of 2001. The months of April and July 2001 were particularly dry, with the summer (June - August) being the 5th driest on record since 1895. The 9.06 inches of rain that were received during those three months, equalled conditions in 1979. Overall, the year 2001 was the 5th driest year on record with only 32.56 inches of precipitation being received. Such totals are reminiscent of the severe, long-term droughts of the mid-1960s. In fact, 1964 1965 and 1963 were the 4th, 3rd and 2nd driest years on record respectively. To learn more about the rankings of Vermont by month or season, visit the [National Climatic Data Centre's Climate at a Glance](#) page.

The most pervasive impacts of the 2001-2002 drought were hydrologic in nature. By mid-January, water conservation measures and farm-water shortages were reported to the [Vermont Emergency Management](#). As of 21 February 2002, daily streamflow conditions across the state were in the 25-74th percentile, with streams in the southern third of the state recording values in the 75-89th percentile. The two exceptions to this pattern were the East Branch of the Passumpsic which was above its 90th percentile and the Little River which was below its 10th percentile. These patterns represent a marked improvement over the last two months, when many of the state's water bodies were either in the 10-24th percentile (Clyde River, Black River, Mad River, Upper Otter Creek, Poultney River, E. Orange and Passumpsic Rivers) or below their respective 10th percentile (Little River, Upper Winooski River, Ayers Brook, White and Ompompanoosuc Rivers). One of the interesting observations of the 2001-2002 drought was the large number of new record low flows that were recorded in the fall. In addition, Lake Champlain levels had also fallen, such that in January 2002 a lake height of 93.7 feet was the lowest level observed during the last 30 years ([National Weather Service](#)).

The [Drought Monitor](#) is a multi-agency initiative to identify the spatial extent and quantify the intensity of this hazard across the United States. This [mapping tool](#) uses a number of indices including the [Palmer Drought Severity Index \(PDSI\)](#) and the [Standardized Precipitation Index](#). Using a combination of these tools, the following picture of drought in Vermont emerged.

- as of 21 February 2002, most of Vermont was categorized as being in a moderate drought (D1 conditions on the Drought Monitor). As aforementioned, this was primarily water-related. Along the northern border of the state, conditions improved to abnormally dry (D0 on the Drought Monitor).

- the improvement noted along the northern border, was in stark contrast to the pronounced dry conditions that were observed in August 2001. It should be noted that as the drought evolved, the driest parts of the state shifted from the northern tier to the west and as of February 2002, were most pronounced in the southeastern part of the state.

- in keeping with this shift in dryness, the peak drought conditions were observed during the summer of 2001 in the northern and western parts of Vermont, while the southeast was driest in the fall.

For more information on the recent drought and methods by which to track drought conditions, see the:

- [Vermont Department of Agriculture, Food & Markets - Drought page](#)
- [Farm Service Agency - Vermont](#)
- [Forage Report](#)

- [University of Vermont Extension Service](#)
- [NOAA Drought Information Centre](#)
- [National Climatic Data Center - CLIMVIS Drought Display System for the Palmer Drought Severity Index](#)
- [National Drought Mitigation Center](#)
- [American Meteorological Society Policy Statement on Meteorological Drought](#)
- [June 1999 - Initial drought statement](#)
- [July 1999 - Drought update and severe weather](#)
- [August 1999 - Impacts of the 1998-1999 drought](#)
- [Summary of the 1998-199 drought in Vermont](#)
- [USGS 1999 News Release on Drought Conditions in Vermont](#)