July Conditions & Northeast DEWS Discussion

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Northeast Regional Climate Center
July Temperatures

Average Temperature Departure (°F)
July 1-28, 2020

From near normal to more than 6°F above normal
July Temperatures
July Temperatures

Likely the all-time hottest month on record for several sites

Washington, D.C. & Scranton – greatest number of days with a high of at least 90°F for any month
**July Temperatures**

Buffalo – longest streak of days with a high of at least 90°F

Portland Jetport – hottest low temperature on record
July Precipitation

Percent of Normal Precipitation (%)
July 1-28, 2020

From less than 25% of normal to more than 200% of normal
July Severe Weather
July Flash Flooding

Northern suburbs of Philadelphia - 3-6 inches of rain in 2 hours

Severe flash flooding
Flash Flood Emergency
Tropical Storm Fay

Earliest “F” named storm on record

Greatest rain totals of 3-7 inches

Credit: NWS
Philadelphia/Mt. Holly
Drought Monitor

June 30:
14% of the region was in a moderate drought
31% was abnormally dry

July 28:
29% of the region was in a moderate or severe drought
42% was abnormally dry
Precipitation

Total Precipitation (inches)
July 22-28, 2020

Percent of Normal Precipitation
June 29 - July 28, 2020
Precipitation

Accumulated Precipitation Departure from Normal

Green/black diamonds represent subsequent/missing values

(Click to hide/show lines)
- Portland Area, ME (threadEx:Precip Dprt)
- Worcester Area, MA (threadEx:Precip Dprt)
- Albany Area, NY (threadEx:Precip Dprt)

Powered By ACSIS
Evap. Drought Demand Index

1-month EDDI categories for July 25, 2020

Drought categories

ED4  ED3  ED2  ED1  ED0
100%  98%  95%  90%  80%  70%

Wetness categories

EW0  EW1  EW2  EW3  EW4
100%  98%  95%  90%  80%

(EDDI-percentile category breaks: 100% = driest; 0% = wettest)

Generated by NOAA/ESRL/Physical Sciences Laboratory
Soil Moisture

USDA Topsoil Moisture by Short-Very Short Percent of State Area
Weekly Value for Period Ending July 26, 2020

- **Very Dry (>50%)**
- **Dry (30% - 50%)**
- **No Data**

Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for this year.

Results are based on the short and very short percentages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.

**Current 10-Year Mean**

Means are calculated from historical weekly data published by USDA/NASS using the closest date to the equivalent date for this year.

Results are based on the short and very short percentages of topsoil moisture (upper 6 inches) reported by the USDA. Reports are based on subjective observations.
### Explanation - Percentile Classes

<table>
<thead>
<tr>
<th>Low</th>
<th>Much below normal</th>
<th>Below normal</th>
<th>Normal</th>
<th>Above normal</th>
<th>Much above normal</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;10%</td>
<td>10-24%</td>
<td>25-75%</td>
<td>76-90%</td>
<td>&gt;90%</td>
<td></td>
</tr>
</tbody>
</table>

Data provided by [USGS WaterWatch - Streamflow](https://waterwatch.usgs.gov/); updated 2020-07-29.
Impacts

On July 2, the water level of Lake Champlain at Burlington, VT, was around 95 feet, more than a foot below normal and a level more typical of mid-to-late August.

In northern, central, and western New York, some crops continued to experience moisture stress, with slow growth of corn, soybeans, and hay. In a few locations, corn is curling and turning blue.

Vermont officials reported a record number of calls about black bears in June due in part to dry conditions reducing the bears’ food supply.

Some Maine farmers noted that crops such as corn were behind schedule.

Dry conditions helped the browntail moth caterpillar, which defoliates trees and causes a skin rash, to spread farther into central Maine.

As of July 8, water restrictions were in place for 117 water systems in New Hampshire.

As of June 30, water levels of Aquarion’s Greenwich and Bridgeport, CT, reservoirs were at or below their 2016 levels.

Substantial rainfall over the past week in parts of Massachusetts improved the condition of crops and contributed to fewer wildfires ignited by lightning.
Precipitation Forecast

7 Day QPF
Valid: 12Z 07/30/20 - 12Z 08/06/20

Explanation - Forecast precipitation (inches)

Data provided by DOC/NOAA/NWS/NCEP/WPC.
Precipitation Forecast

Tropical Storm Isaias
Thursday July 30, 2020
8 AM AST Intermediate Advisory 8A
NWS National Hurricane Center

Current information: x
Center location 17.5 N 68.5 W
Maximum sustained wind 60 mph
Movement NW at 20 mph

Forecast positions:
● Tropical Cyclone
○ Post/Potential TC
Sustained winds:
D < 39 mph
S 39-73 mph
H 74-110 mph
M > 110 mph

Potential track area:
[Day 1-3] [Day 4-5]

Watches:

Warnings:

Current wind extent:
Short-term Outlooks
Monthly & 3-Month Outlooks
Contact Information

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- 607-255-1751

Upcoming Webinars

- Thursday, August 27 at 9:30am
  - Hurricane Outlook & Season Update

- Tuesday, September 29 at 9:30am
  - earth system models and applications for climate and marine fisheries

- Thursday, October 29 at 9:30am
  - Drought projects

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