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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>NWS Form E-5</b><br>(04-2006)<br>(PRES. BY NWS Instruction 10-924)                                                                                                                                                                    | <b>U.S. DEPARTMENT OF COMMERCE</b><br><b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b><br><b>NATIONAL WEATHER SERVICE</b> | HYDROLOGIC SERVICE AREA (HSA)<br><b>WFO Caribou, Maine</b>                               |
| <b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>                                                                                                                                                                                           |                                                                                                                                 | REPORT FOR:<br>MONTH                      YEAR<br><b>March                      2020</b> |
| TO: Hydrologic Information Center, W/OS31<br>NOAA's National Weather Service<br>1325 East West Highway<br>Silver Spring, MD 20910-3283                                                                                                   |                                                                                                                                 | SIGNATURE<br><b>Joseph Hewitt, HPM</b><br><br>DATE<br><b>April 26<sup>th</sup>, 2020</b> |
| <i>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).</i> |                                                                                                                                 |                                                                                          |

☒ An X inside this box indicates that no flooding occurred within this hydrologic service area.

### March 2020

No flooding occurred during the month of March.

Ice held in place on the northern rivers especially along the St. John and Aroostook Rivers. The ice jam on the Aroostook River in Fort Fairfield had broken up some and moved further downstream. Smaller jams on the St. John River between St. John and St. Francis remained in place. The Fish River remained open all the way to the confluence with the St. John River. Across the Piscataquis and Penobscot Rivers, there was more open water by the end of the month. There was still some ice along the Kingsbury Stream and on the Piscataquis River east of Dover-Foxcroft. The Penobscot River had some ice reform especially north of West Enfield to Grindstone. Warmer temperatures allowed to weaken along this stretch. The St. Croix River was 90% open with just a few sections of some sheet ice. The thickest ice remained across the northern rivers such as the Allagash, St. John and Aroostook, with thicknesses of 18 to 24 inches. Across the southern rivers, ice thickness was 5 to 10 inches, except on the Kingsbury Stream in Piscataquis County and on the East Branch of the Penobscot River in Grindstone, where ice thickness remained at 15 inches.

Temperatures for the month of March were above normal with 1 to 2 degrees above normal, with the exception of the lower Penobscot Valley and Downeast areas with temperatures of 3 to 5 degrees above normal. Bangor had an average monthly temperature of 34.4 degrees, which was 4.2 degrees above normal. This was the 12<sup>th</sup> warmest March on record, but well below the warmest March on record with 40.1 degrees recorded back in 1936. Bangor recorded its highest temperature of 56 degrees on the 20<sup>th</sup> and 28<sup>th</sup>. Bangor's lowest temperature was 10 degrees on the 2<sup>nd</sup>. Caribou had an average monthly temperature of 25.9 degrees, which was 1.4 degrees above normal. Caribou had its highest temperature for the month of 48 degrees on the 20<sup>th</sup> and 20<sup>th</sup>. Caribou's lowest temperature for the month was -7 degrees on the 1<sup>st</sup>.

Precipitation was below normal across the region, with the exception for NE Aroostook County, where precipitation was above normal. Caribou recorded 2.94 inches of precipitation which was 0.43 inches above normal. Bangor came in with 2.27 inches of precipitation which was 1.11 inches below normal.

Snowfall for the month of March was above normal across Northern Maine, while from Bangor to the coast, snowfall was below normal. Caribou came in with 18.7 inches of snow, which was 0.4 inches above normal. Bangor recorded 7.8 inches for the month of March, which was 3.9 inches below normal. A few snow events occurred during the month of March, with the first one coming in on the 13<sup>th</sup> and 14<sup>th</sup> with 4 to 5 inches of snow across areas north of Houlton and Millinocket. The second event was on the 23<sup>rd</sup> and 24<sup>th</sup> with 3 to 6 inches across the Bangor and interior Downeast region, while Northern Maine of snow received 1 to 3 inches. By the end of the month, snow depths ranged from 23 to 39 inches across Northern Maine, with only trace amounts from Bangor to the coast.

Streamflows across much of the HSA were near normal for March with the exception for Northern Maine as streamflows were above normal.

Groundwater conditions remained at near to slightly above normal levels, especially for Northern Maine and eastern Washington County. Calais was seeing groundwater levels well above normal.

In regards to Drought monitoring, the HSA continued to see normal conditions.

#### **Precipitation Totals for Select Locations with all units in inches**

| <b>Location</b> | <b>Total Precip</b> | <b>Normal Precipitation</b> | <b>Departure from Normal</b> | <b>Snowfall</b> | <b>Normal Snowfall</b> | <b>Departure from Normal Snowfall</b> | <b>Greatest Snow Depth</b> |
|-----------------|---------------------|-----------------------------|------------------------------|-----------------|------------------------|---------------------------------------|----------------------------|
| Frenchville     | 1.43                | 1.48                        | -0.05                        | NA              | NA                     | NA                                    | NA                         |
| Caribou         | 2.94                | 2.51                        | +0.43                        | 18.7            | 18.3                   | +0.4                                  | 32                         |
| Houlton         | 2.04                | 2.59                        | -0.55                        | NA              | NA                     | NA                                    | NA                         |
| *Millinocket    | 2.65                | 3.06                        | -0.41                        | NA              | NA                     | NA                                    | NA                         |
| Bangor          | 2.27                | 3.38                        | -1.11                        | 7.8             | 11.7                   | -3.9                                  | 7                          |

\*Millinocket snowfall measured at wastewater treatment plant, not the ASOS site. Data was not available at this time.

#### **Stream Flows for Selected Rivers**

| <b>River</b>                      | <b>Normal Flow (cfs)</b> | <b>Monthly Mean Flow (cfs)</b> | <b>Monthly Mean (in)</b> | <b>Percentile Class</b> | <b>Drainage (mi<sup>2</sup>)</b> | <b>Years of Record</b> |
|-----------------------------------|--------------------------|--------------------------------|--------------------------|-------------------------|----------------------------------|------------------------|
| St. John River at Ninemile Bridge | NA                       | NA                             | NA                       | NA                      | 1341                             | 68                     |
| St. John River at Fort Kent       | 1670 - 4660              | 12500                          | 2.43                     | Much Above Normal       | 5929                             | 93                     |
| Aroostook River at Washburn       | NA                       | NA                             | NA                       | NA                      | 1654                             | 88                     |
| Narraguagus River at Cherryfield  | 480 – 974                | 581                            | 2.95                     | Normal                  | 227                              | 72                     |

|                                     |             |      |      |        |      |     |
|-------------------------------------|-------------|------|------|--------|------|-----|
| E Br Penobscot River at Grindstone  | NA          | NA   | NA   | NA     | 837  | 116 |
| Mattawamkeag nr Mattawamkeag        | 1030 - 2920 | 2280 | 1.85 | Normal | 1418 | 85  |
| Piscataquis River nr Dover-Foxcroft | 273 - 776   | 177  | 1.90 | Normal | 298  | 117 |

Groundwater Levels

| Station      | Normal Range (ft) | Mean Water Level Below Land-sfc Datum (ft) | Departure from Month-end Median (ft) | Percentile Class | Years of Record |
|--------------|-------------------|--------------------------------------------|--------------------------------------|------------------|-----------------|
| Amherst      | 19.70 – 17.60     | 17.72                                      | -0.38                                | Normal           | 29              |
| Crooked Road | NA                | NA                                         | NA                                   | NA               | 15              |
| Hadley Lakes | 4.91 – 4.14       | 4.70                                       | +0.12                                | Normal           | 34              |
| Kenduskeag   | 22.40 – 19.30     | 20.30                                      | -0.60                                | Normal           | 41              |
| Calais       | 1.57 – 0.58       | -0.45                                      | -1.52                                | High             | 20              |
| Millinocket  | 10.40 – 9.48      | 10.62                                      | +0.69                                | Below Normal     | 26              |
| Clayton Lake | 15.00 – 13.70     | 14.17                                      | +0.07                                | Normal           | 41              |
| Fort Kent    | 12.60 – 10.00     | 9.38                                       | -1.62                                | Above Normal     | 42              |

| Flow or Water Level | Percentile Range                      | Explanation                                                                                                                                                                                                        |
|---------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Record Low          | 0 <sup>th</sup>                       | The monthly mean streamflow or median water level during this month is the lowest ever recorded during the period of record for this site.                                                                         |
| Very Low            | 0 <sup>th</sup> to 10 <sup>th</sup>   | The monthly mean streamflow or median water level during this month is less than the 10 <sup>th</sup> percentile when compared to all of the months during the period of record for this site.                     |
| Low                 | 10 <sup>th</sup> to 25 <sup>th</sup>  | The monthly mean streamflow or median water level during this month is between the 10 <sup>th</sup> and 25 <sup>th</sup> percentiles when compared to all of the months during the period of record for this site. |
| Normal              | 25 <sup>th</sup> to 75 <sup>th</sup>  | The monthly mean streamflow or median water level during this month is between the 25 <sup>th</sup> and 75 <sup>th</sup> percentiles when compared to all of the months during the period of record for this site. |
| High                | 75 <sup>th</sup> to 90 <sup>th</sup>  | The monthly mean streamflow or median water level during this month is between the 75 <sup>th</sup> and 90 <sup>th</sup> percentiles when compared to all of the months during the period of record for this site. |
| Very High           | 90 <sup>th</sup> to 100 <sup>th</sup> | The monthly mean streamflow or median water level during this month is greater than the 90 <sup>th</sup> percentile when compared to all of the months during the period of record for this site.                  |
| Record High         | 100 <sup>th</sup>                     | The monthly mean streamflow or median water level during this month is the highest ever recorded during the period of record for this site.                                                                        |

**Non-Routine Hydrologic Products**  
**March 2020**  
**WFO Caribou, ME**

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Drought Conditions for March

March 3<sup>rd</sup> 2020

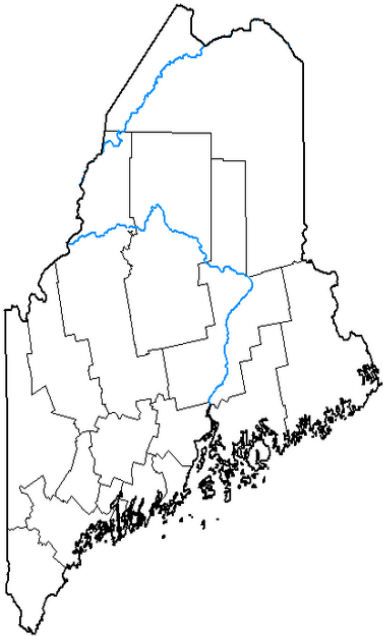
U.S. Drought Monitor



March 3, 2020

(Released Thursday, Mar. 5, 2020)

Valid 7 a.m. EST



|                                         | Drought Conditions (Percent Area) |       |       |       |       |      |
|-----------------------------------------|-----------------------------------|-------|-------|-------|-------|------|
|                                         | None                              | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
| Current                                 | 100.00                            | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| Last Week<br>02-25-2020                 | 100.00                            | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| 3 Months Ago<br>12-09-2019              | 100.00                            | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| Start of<br>Calendar Year<br>12-31-2019 | 100.00                            | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| Start of<br>Water Year<br>10-01-2019    | 87.45                             | 12.55 | 0.00  | 0.00  | 0.00  | 0.00 |
| One Year Ago<br>03-05-2019              | 100.00                            | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |

Intensity:

None

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

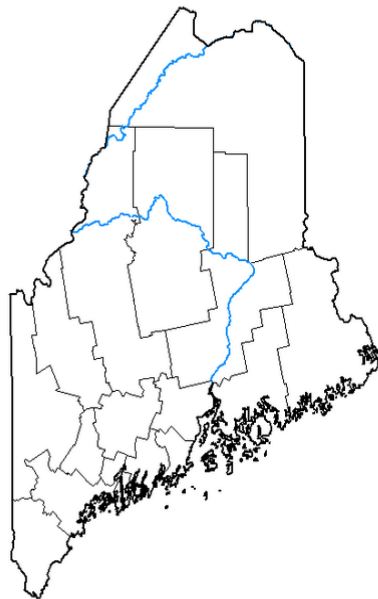
Author:  
Adam Hartman  
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

March 31st, 2020

**U.S. Drought Monitor**  
**Maine**



**March 31, 2020**

(Released Thursday, Apr. 2, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

|                                         | None   | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
|-----------------------------------------|--------|-------|-------|-------|-------|------|
| Current                                 | 100.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| Last Week<br>03-24-2020                 | 100.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| 3 Months Ago<br>12-31-2019              | 100.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| Start of<br>Calendar Year<br>12-31-2019 | 100.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |
| Start of<br>Water Year<br>10-01-2019    | 87.45  | 12.55 | 0.00  | 0.00  | 0.00  | 0.00 |
| One Year Ago<br>04-02-2019              | 100.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 |

Intensity:

|                     |                        |
|---------------------|------------------------|
| None                | D2 Severe Drought      |
| D0 Abnormally Dry   | D3 Extreme Drought     |
| D1 Moderate Drought | D4 Exceptional Drought |

The Drought Monitor focuses on broad-scale conditions.  
Local conditions may vary. For more information on the  
Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)