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| NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924) | U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE | HYDROLOGIC SERVICE AREA (HSA) |
| | | WFO Caribou, Maine REPORT FOR: MONTH YEAR January 2021 |
| MONTHLY REPORT OF HYDROLOGIC CONDITIONS | TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283 | SIGNATURE Joseph Hewitt, HPM |
| | | DATE March 1st, 2021 |

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).

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

January 2021

No Flooding occurred in the month of January.

Precipitation for the month of January was WELL below normal. Caribou came in 1.26 inches which was 1.45 inches below normal. It was the 12th driest January on record. Bangor recorded 1.39 inches of precipitation, which was 1.50 inches below normal. This made it the 11th driest January on record. Houlton came in with only 0.65 inches of precipitation, which was 2.21 inches below normal. This made it the 4th driest January on record.

The low precipitation made it for a low snowfall for the month. Snowfall was well below across the region for the month of January. Caribou measured 13 inches of snow for the month. This was 12.2 inches below the normal snowfall of 25.2 inches. Bangor came in with just 9.5 inches of snow for the month. This was 10.2 below the normal snowfall of 19.2 inches. The most significant snow event occurred on the 2nd which affected mainly the Maine Central Highlands and the Penobscot Valley with 7 to 13 inches. Northern Maine received 3 to 6 inches of snow. The maximum snow depth for Caribou was 10 inches on the 23rd and 29th. The snowpack held right to the end of the month. In Bangor, the maximum snow depth was 7 inches on the 4th and 5th, but was reduced to a trace by the 18th due to some milder air that moved in during the middle of the month. A weak system brought some snow on the 29th which brought the snow depth back to 1 inch by the end of the month. Snow depths were well below normal across the entire HSA.

January was another mild month with temperatures averaging 7 to 9 degrees above normal. Caribou recorded a monthly temperature of 19.6 degrees, which was 9.4 degrees above normal. January 2021 was the 2nd warmest January on record in Caribou. As a matter of fact, Caribou only recorded 4 subzero mornings, which was the least of any January at Caribou since records began back in 1939. Bangor recorded an average monthly temperature of 24.1 degrees, which was 7.1 degrees above normal. This January was the 7th warmest January on record in Bangor. Houlton recorded a monthly average temperature of 20.2 degrees, which was 8.6 degrees above normal. This made it the 4th warmest January on record.

Streamflows across the region were near normal for January with the St. John River at Fort Kent coming in with above normal streamflows. Ice did expand more on the rivers, especially across the St. John and Aroostook basins. Ice jams remained in place on the Aroostook River in the Fort Fairfield area. A smaller ice jam remained in place near the Grand Isle area on St. John River. Further south, ice did set on Piscataquis River, including the Kingsbury Stream, and along portions of the Penobscot River, including at Bangor where Kenduskeag Stream drains into the Penobscot River. The East Branch of the Penobscot River at Grindstone was filled in with ice, but there was open water south of there. Ice thickness was measured by the USGS to be 7-12 inches, with the thickest ice across the Aroostook, St. John and Allagash Rivers.

Wells across the region were mainly in the normal range, with the exception of the Amherst well in Hancock County, which reported below normal groundwater levels. The Fort Kent well reported above normal groundwater levels for January.

In regards to Drought monitoring, the region continued to see improvement during the January. Just about the entire region was at normal conditions by the end of January. The exception to this was coastal Hancock County, where **Abnormally Dry** conditions continued for coastal Hancock County.

Precipitation Totals for Select Locations with all units in inches

| Location | Total Precip | Normal Precipitation | Departure from Normal | Snowfall | Normal Snowfall | Departure from Normal Snowfall | Greatest Snow Depth |
|--------------|--------------|----------------------|-----------------------|----------|-----------------|--------------------------------|---------------------|
| Frenchville | 0.58 | 1.76 | -1.18 | NA | NA | NA | NA |
| Caribou | 1.26 | 2.71 | -1.45 | 13.0 | 25.2 | -12.2 | 10 |
| Houlton | 0.65 | 2.86 | -2.21 | NA | NA | NA | NA |
| *Millinocket | 1.29 | 2.73 | -1.64 | NA | NA | NA | NA |
| Bangor | 1.39 | 2.89 | -1.50 | 9.5 | 19.2 | -10.2 | 7 |

*Millinocket snowfall measured at wastewater treatment plant, not the ASOS site. Data might not available every month.

December Stream Flows for Selected Rivers

| River | Normal Flow (cfs) | Monthly Mean Flow (cfs) | Monthly Mean (in) | Percentile Class | Drainage (mi ²) | Years of Record |
|-----------------------------------|-------------------|-------------------------|-------------------|------------------|-----------------------------|-----------------|
| St. John River at Ninemile Bridge | NA | NA | NA | NA | 1341 | 70 |
| St. John River at Fort Kent | 2220 - 4410 | 5650 | 1.10 | Above Normal | 5929 | 94 |
| Aroostook River at Washburn | NA | NA | NA | NA | 1654 | 90 |
| Narraguagus River at Cherryfield | 337 – 702 | 385 | 1.96 | Normal | 227 | 72 |

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|-------------------------------------|------------|------|------|--------|------|-----|
| E Br Penobscot River at Grindstone | NA | NA | NA | NA | 837 | 118 |
| Mattawamkeag nr Mattawamkeag | 884 - 2080 | 1710 | 1.39 | Normal | 1418 | 86 |
| Piscataquis River nr Dover-Foxcroft | 185 - 429 | 325 | 1.26 | Normal | 298 | 118 |

Groundwater Levels

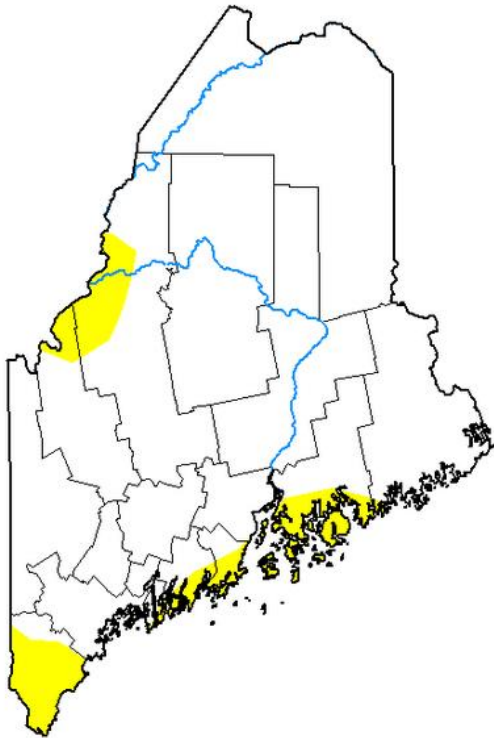
| Station | Normal Range (ft) | Mean Water Level Below Land-sfc Datum (ft) | Departure from Month-end Median (ft) | Percentile Class | Years of Record |
|--------------|-------------------|--|--------------------------------------|-------------------|-----------------|
| Amherst | 19.90 – 17.80 | 20.17 | 1.67 | Much Below Normal | 30 |
| Crooked Road | NA | NA | NA | NA | 15 |
| Hadley Lakes | 5.14 – 4.32 | 4.59 | -0.05 | Normal | 35 |
| Kenduskeag | 22.40 – 20.30 | 20.40 | -0.40 | Normal | 42 |
| Calais | 2.52 – 0.75 | 1.11 | -0.12 | Normal | 21 |
| Millinocket | 10.50 – 8.96 | 8.78 | -0.68 | Above Normal | 27 |
| Clayton Lake | 14.90 – 13.90 | 13.93 | -0.57 | Normal | 42 |
| Fort Kent | 11.70 – 8.66 | 7.30 | -2.55 | Much Above Normal | 43 |

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

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Drought Conditions for January 2021

U.S. Drought Monitor
Maine



January 5, 2021
(Released Thursday, Jan. 7, 2021)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|--------|--------|--------|-------|-------|------|
| Current | 91.54 | 8.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| Last Week <i>12-29-2020</i> | 91.54 | 8.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 Months Ago <i>10-06-2020</i> | 0.00 | 100.00 | 100.00 | 82.59 | 11.94 | 0.00 |
| Start of Calendar Year <i>12-29-2020</i> | 91.54 | 8.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Water Year <i>09-29-2020</i> | 0.00 | 100.00 | 100.00 | 83.86 | 7.28 | 0.00 |
| One Year Ago <i>01-07-2020</i> | 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>

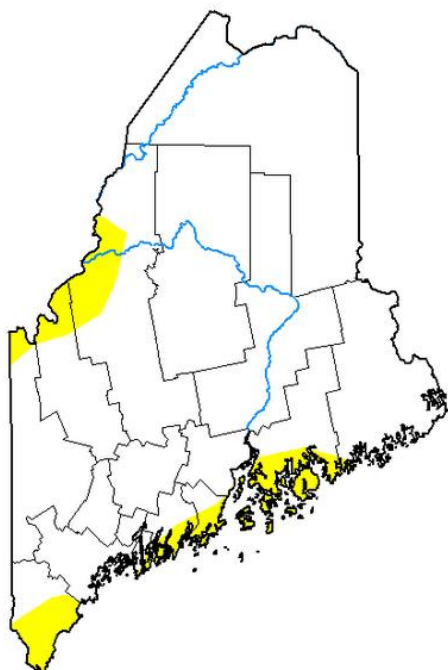
Author:

Deborah Bathke
National Drought Mitigation Center



droughtmonitor.unl.edu

U.S. Drought Monitor
Maine



January 26, 2021
(Released Thursday, Jan. 28, 2021)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|--------|--------|--------|-------|-------|------|
| Current | 91.68 | 8.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| Last Week <i>01-19-2021</i> | 91.68 | 8.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 Months Ago <i>10-27-2020</i> | 0.00 | 100.00 | 86.20 | 15.05 | 2.20 | 0.00 |
| Start of Calendar Year <i>12-29-2020</i> | 91.54 | 8.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Water Year <i>09-29-2020</i> | 0.00 | 100.00 | 100.00 | 83.86 | 7.28 | 0.00 |
| One Year Ago <i>01-28-2020</i> | 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:
Richard Tinker
CPC/NOAA/NWS/NCEP



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