

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
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH YEAR November 2020
		SIGNATURE Joseph Hewitt, HPM
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		DATE December 31st, 2020

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.

November 2020

No major flooding occurred in the month of November. There was some minor flood that occurred on the 23rd, but this was many for culverts and ditches spilling over on to some roads. A Flood Advisory was issued for this event.

Precipitation for the month of November was variable across the region as some areas across the northern basins such as Houlton came with 1.30 inches below normal for the month, while Bangor and Millinocket recorded 1.02 and 0.94 inches above normal, respectively. Bangor came 5.22 inches for the month, while Millinocket had 5.37 inches. Caribou came in with just 0.06 inches above normal with a monthly total of 3.69 inches. There were two significant rain events with one on the 23rd with 1 to 2 inches recorded across the region. Another event came on the 30th with 1 to 2 inches of rainfall from Houlton to the coast.

As for snowfall, snowfall was near normal across the St. John Valley and a bit below normal for Caribou and just a tad above normal for Bangor. Caribou recorded 6.6 inches of snow for November, which was 3.9 inches below normal. This came on the heels of the past two years, which featured well above normal snowfall for November. Bangor recorded 2.7 inches of snow, which was 0.4 inches above normal. The largest snow event of the month came in on the 15-16th, where several locations across the St. John Valley observed 7 to 8 inches of snow. By the end of the month, the only location that had snow on the ground were areas to the north of the Caribou area with 3 to 6 inches on the ground. Most of this even melted later in the evening on the 30th due to unseasonably warm and wet weather.

November was a mild month with temperatures averaging 2.5 to 5 degrees above the 30 year average/normal. Unseasonably warm temperatures occurred from the 6th through the 12th. It was the fifth warmest November on record in both Caribou and Houlton. Bangor recorded the 9th warmest November on record. Record warmth from the 9th through the 12th, with an all time record high for the month occurring on the tenth at a number of sites. Caribou recorded a record high temperature of 75 degrees on the 10th, which set a record high for the month. The previous record high for the month was 68 degrees set just a year ago, back on November 1st, 2019. Caribou's average monthly temperature was 36.5

degrees, which was 5.0 degrees above normal. Houlton also set an all-time high for the month on the 10th of 75 degrees. This broke the previous record of 71 degrees set back on November 1st, 1956. Houlton’s average monthly temperature was 37.7 degrees, which was 5.1 degrees above normal. Millinocket, which has records that date back to 1903, also set an all-time monthly record temperature of 74 degrees, which broke the previous record of 72 degrees, set back on the 2nd and 3rd of 1903. Bangor’s average monthly temperature was 40.9 degrees. This was 3.9 degrees above normal for the month. Bangor did not set any all-time high temperatures for the month, but the 72 degrees recorded on the 10th did tie the record high temperature on November 8th, 1938 for the 2nd warmest temperature observed for the month.

Streamflows across the region continued to show improvements across the region with readings at near normal levels. Downeast regions were below normal such as the Narraguagus River at Cherryfield in Washington County.

Wells across parts of Northern Maine reported near normal levels such as Clayton Lake and Fort Kent. Millinocket however came in with levels below normal as did Calais. Amherst in Hancock County recorded levels much below normal.

In regards to Drought monitoring, the region continued to see improvement during the course of November, especially across the northern and central basins. Conditions across the northern and central region improved by one Category. Northern areas went from Abnormally Dry(D0) /Moderate Drought(D1) to Normal conditions, while central areas improved from Moderate to Abnormally Dry. The Downeast to the coast remained close to Moderate to Severe(D1).

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	2.48	2.94	-0.46	NA	NA	NA	NA
Caribou	3.69	3.63	+0.06	6.6	10.5	-3.9	4
Houlton	2.71	4.01	-1.30	NA	NA	NA	NA
*Millinocket	5.37	4.43	+0.94	NA	NA	NA	NA
Bangor	5.22	4.20	+1.02	2.7	2.3	+0.4	2

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

November 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	1570 - 3150	2090	1.74	Normal	1341	70
St. John River at Fort Kent	5400 -12200	8050	1.51	Normal	5929	94

Aroostook River at Washburn	1390 - 3620	2470	1.67	Normal	1654	90
Narraguagus River at Cherryfield	336 - 864	248	1.22	Below Normal	227	72
E Br Penobscot River at Grindstone	871 - 2350	1510	2.01	Normal	837	118
Mattawamkeag nr Mattawamkeag	1540 - 4210	2000	1.57	Normal	1418	86
Piscataquis River nr Dover-Foxcroft	338 - 927	550	2.06	Normal	298	118

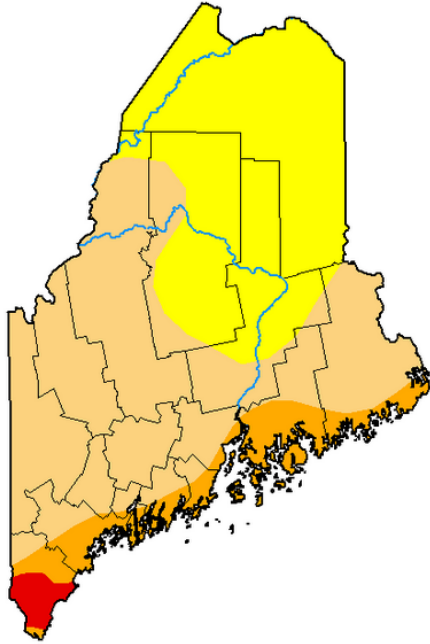
Groundwater Levels

Station	Normal Range (ft)	Mean Water Level Below Land-sfc Datum (ft)	Departure from Month-end Median (ft)	Percentile Class	Years of Record
Amherst	22.20 - 17.50	26.86	8.26	Much Below Normal	30
Crooked Road	NA	NA	NA	NA	15
Hadley Lakes	5.99 - 4.50	6.44	1.40	Below Normal	35
Kenduskeag	25.70 - 20.80	25.67	2.47	Normal	42
Calais	1.61 - 0.47	2.80	1.86	Below Normal	21
Millinocket	10.90 - 9.36	11.27	0.97	Below Normal	26
Clayton Lake	15.00 - 13.80	14.91	0.41	Normal	42
Fort Kent	11.60 - 9.27	10.04	-0.37	Normal	42

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.

U.S. Drought Monitor
Maine

November 3, 2020
(Released Thursday, Nov. 5, 2020)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	60.42	10.81	1.55	0.00
Last Week 10-27-2020	0.00	100.00	86.20	15.05	2.20	0.00
3 Months Ago 08-04-2020	10.78	89.22	77.76	6.33	0.00	0.00
Start of Calendar Year 12-31-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-29-2020	0.00	100.00	100.00	83.86	7.28	0.00
One Year Ago 11-05-2019	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:

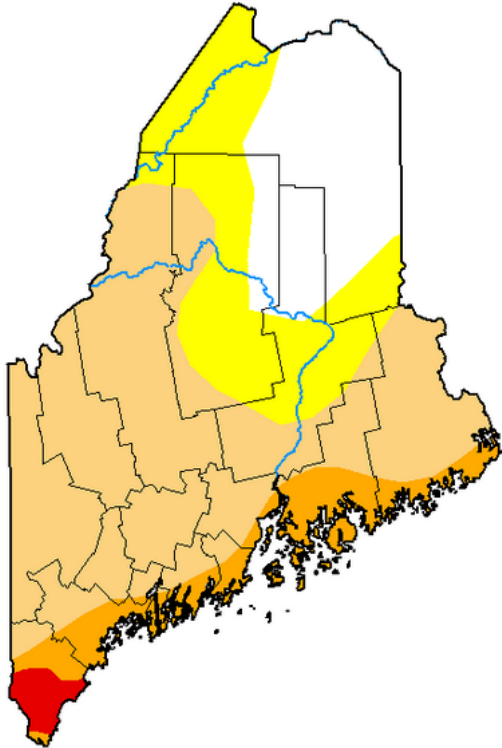
David Miskus
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

U.S. Drought Monitor
Maine

November 24, 2020
(Released Wednesday, Nov. 25, 2020)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	18.53	81.47	60.42	10.81	1.55	0.00
Last Week <i>11-17-2020</i>	0.00	100.00	60.42	10.81	1.55	0.00
3 Months Ago <i>08-25-2020</i>	0.00	100.00	79.48	42.23	0.00	0.00
Start of Calendar Year <i>12-31-2019</i>	100.00	0.00	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>11-26-2019</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

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