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 **March** YEAR **2020**
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 **April 26th, 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).

X 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 12th 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 20th and 28th . Bangor's lowest temperature was 10 degrees on the 2nd. 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 20th and 20th. Caribou's lowest temperature for the month was -7 degrees on the 1st.

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 13th and 14th with 4 to 5 inches of snow across areas north of Houlton and Millinocket. The second event was on the 23rd and 24th 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

Location	Total Precip	Normal Precipitation	Departure from Normal	Snowfall	Normal Snowfall	Departure from Normal Snowfall	Greatest Snow Depth
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

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	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

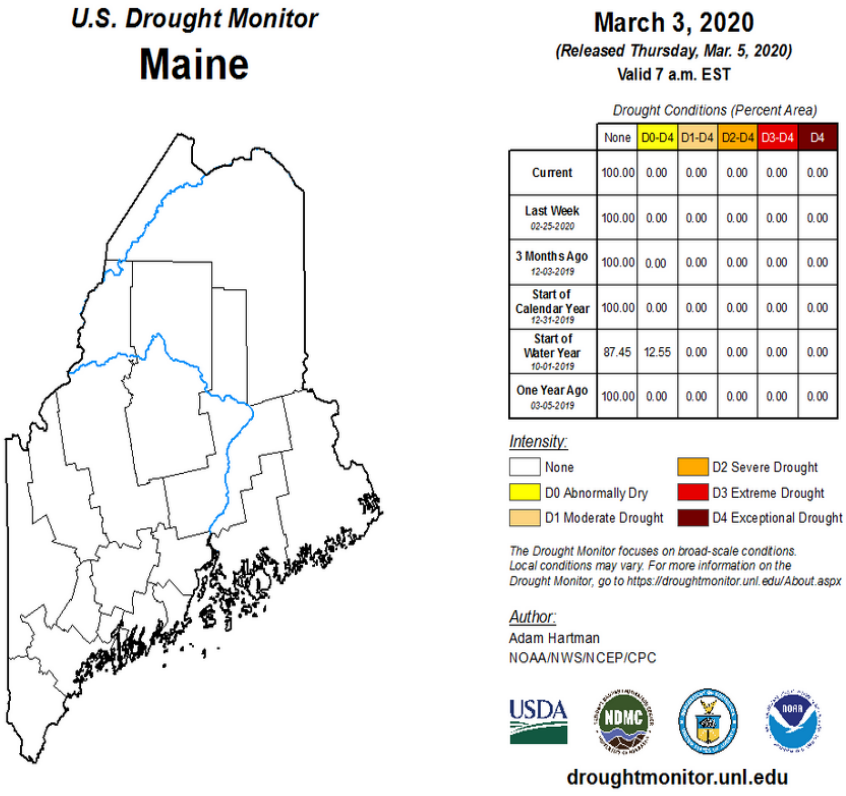
Flow or Water Level	Percentile Range	Explanation
Record Low	0^{th}	The monthly mean streamflow or median water level during this month is the lowest ever recorded during the period of record for this site.
Very Low	0^{th} to 10^{th}	The monthly mean streamflow or median water level during this month 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.

Non-Routine Hydrologic Products
March 2020
WFO Caribou, ME

PIL	TIME (UTC)	Date	Description

Drought Conditions for March

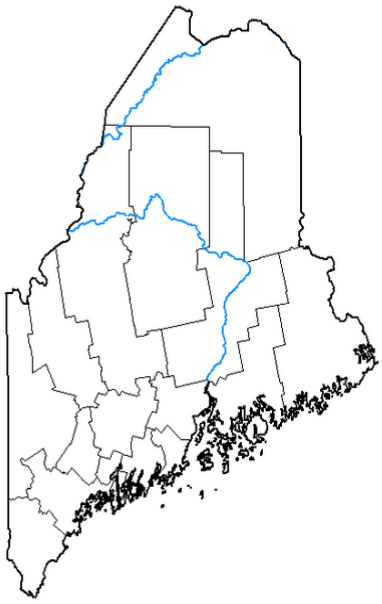
March 3rd 2020



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 *03-24-2020*	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago *12-31-2019*	100.00	0.00	0.00	0.00	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 *10-01-2019*	87.45	12.55	0.00	0.00	0.00	0.00
One Year Ago *04-02-2019*	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

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droughtmonitor.unl.edu