

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 July 2018
		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 August 28, 2018

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.

July 2018

No Flooding occurred during the month of July.

July 2018 came in with temperatures well above normal. Temperatures across the region ranged from 3 to 7 degrees above normal. July was the all time warmest month on record. The average temperature for July was 70.9 degrees which was 5.3 degrees above the 30 year average(1981-2010). Prior to July 2018, the warmest month was July 1970 with a average temperature 69.6 degrees. Weather records have been kept at Caribou since 1939. At Bangor, July 2018 tied with July 2008 as the 8th warmest July on record with an average temperature of 71.0 degrees.

In regards to precipitation, rainfall for the most part was below normal for the month of July. The Maine Central Highlands came in with rainfall near normal for July. Caribou came in with a 2.19 inches of rainfall which was 1.89 inches below normal. Bangor recorded 2.48 inches which was 0.98 inches below normal. Millinocket recorded 4.27 inches of rainfall which was 0.48 inches above normal. There were two significant rain events that occurred during the month of July with a heavy rainfall event occurring on July 6th with rainfall amounts of 0.50 to over an inch across the region. Bangor recorded 1.15 inches of rain on the 6th. Another heavy rainfall event occurred on the 26th and 27th with 1 to 2 inches of rainfall being recorded with some strong thunderstorms. A few sites recorded over 2 inches of rainfall in 24 hours. Frenchville recorded 2.34 inches of rain on the 26th.

Overall, groundwater conditions were near to above normal for the Central Maine Highland into the Downeast region with the exception for far Northwest Maine as Clayton Lake continued to come in with readings much below normal.

Streamflows continued much below normal for the St. John, Aroostook River and Mattawamkeag River basins, nearing the 10th percentile. The Penobscot River basin south of Grindstone recovered to near normal streamflows with the Piscataquis and St. Croix River Basin near normal streamflows.

As far as conditions approaching near Drought conditions, the USDM raised the category across the Northern and Downeast Maine to Abnormally Dry conditions(D0). The heavy rainfall that occurred across portions of Northern Maine on the 26th helped alleviate the abnormally dry conditions a bit.

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	3.34	4.31	-0.97	NA	NA	NA	NA
Caribou	2.19	4.08	-1.89	0.0	0.0	0.0	0
Houlton	3.17	3.66	- 0.49	NA	NA	NA	NA
*Millinocket	4.27	3.85	+0.42	NA	NA	NA	NA
Bangor	2.48	3.46	-0.98	0.0	0.0	0.0	0

*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 (mi²)	Years of Record
St. John River at Ninemile Bridge	755 - 1790	743	0.64	Below Normal	1341	67
St. John River at Fort Kent	3920 - 8910	2190	0.43	Much Below Normal	5929	91
Aroostook River at Washburn	758 - 1790	386	0.27	Much Below Normal	1654	87
Narraguagus River at Cherryfield	99.2 – 208	155	0.79	Normal	227	70
E Br Penobscot River at Grindstone	824 – 1590	902	1.24	Normal	837	115
Mattawamkeag nr Mattawamkeag	480 – 1420	403	0.33	Below Normal	1418	83
Piscataquis River nr Dover-Foxcroft	90.3 - 298	131	0.51	Normal	298	115

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
McFarland Hill	20.80 – 7.75	19.62	2.62	Normal	14
Crooked Road	6.68 – 5.58	6.41	-0.02	Normal	14
Hadley Lakes	5.59 – 4.88	4.84	-0.38	Above Normal	32
Kenduskeag	23.30 – 21.90	23.01	0.41	Normal	40
Calais	3.75 – 1.80	1.61	-1.23	Above Normal	18
Millinocket	9.91 – 8.68	9.81	0.77	Normal	24
Clayton Lake	15.50 – 14.90	16.43	1.13	Much Below Normal	39
Fort Kent	9.92 – 7.40	8.93	0.34	Normal	40

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.

**Significant River Crests
May 2018**

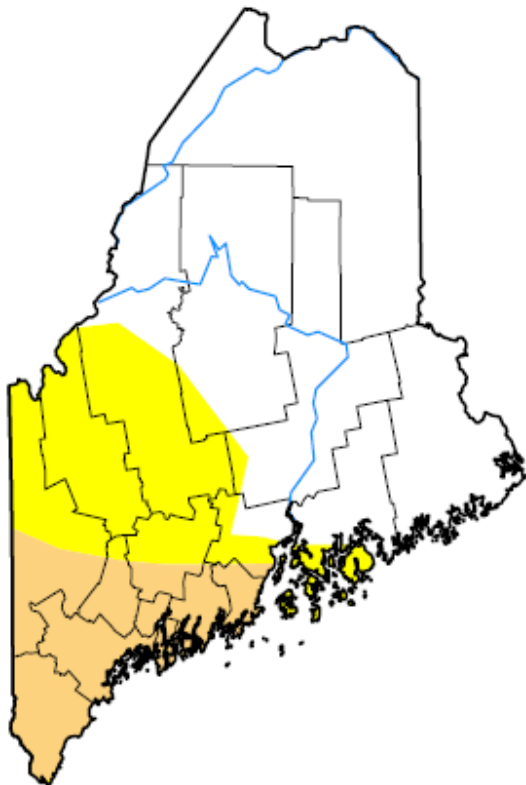
WFO Caribou, ME

Location	ID	Date	Time (UTC)	Crest Stage (ft)	Flood Stage (ft)

Drought Conditions

U.S. Drought Monitor
Maine

July 3, 2018
 (Released Thursday, Jul. 5, 2018)
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	63.33	36.67	14.57	0.00	0.00	0.00
Last Week <small>06-26-2018</small>	63.33	36.67	14.57	0.00	0.00	0.00
3 Months Ago <small>04-03-2018</small>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <small>01-02-2018</small>	92.38	7.62	0.00	0.00	0.00	0.00
Start of Water Year <small>09-26-2017</small>	57.81	42.19	24.62	0.00	0.00	0.00
One Year Ago <small>07-04-2017</small>	96.45	3.55	0.00	0.00	0.00	0.00

Intensity:

- 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. See accompanying text summary for forecast statements.

Author:

Richard Tinker
 CPC/NOAA/NWS/NCEP



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor
Maine

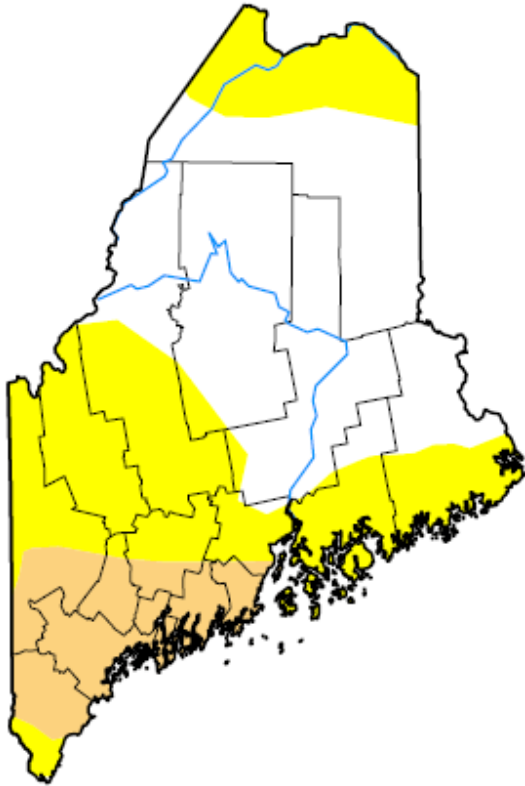
July 31, 2018

(Released Thursday, Aug. 2, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	47.64	52.36	13.33	0.00	0.00	0.00
Last Week <i>07-24-2018</i>	55.50	44.50	14.56	0.00	0.00	0.00
3 Months Ago <i>05-01-2018</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>01-02-2018</i>	92.38	7.62	0.00	0.00	0.00	0.00
Start of Water Year <i>09-25-2017</i>	57.81	42.19	24.62	0.00	0.00	0.00
One Year Ago <i>08-01-2017</i>	43.36	56.64	9.82	0.00	0.00	0.00



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- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

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