

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 2019

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
August 21st 2019

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.

There were some Urban and Small Stream Flood Advisories issued during the month of July. The dates are listed in the table provided. No flooding was reported.

July came in with above normal temperatures across the region. Temperatures ranged from 2 to 3.5 degrees above the 30 year average. Caribou recorded the 8th warmest July on record, which was well shy of the July 2018, which was the warmest July on record. Bangor tied with 1975 as 7th warmest July on record. Caribou's average temperature for July was 68.7 degrees, which was 3.1 degrees above normal. Bangor recorded an average monthly temperature of 71.5 degrees, which was 3.0 degrees above normal.

Precipitation was above normal from Bangor to the Downeast region, while central and northern areas were below normal by at least 1.00 inch. The exception to this was across the Crown of Maine, in the St. John Valley region, where precipitation was above normal. Frenchville came in 4.92 inches of precipitation for July, which was 0.61 inches above normal. Bangor recorded 4.46 inches of precipitation, which was 1.00 inch above normal. Caribou came in with 2.49 inches, which was 1.59 below normal.

Streamflows across the HSA were near to slightly below normal across the northern region including the St. John and Allagash basins. Streamflows across Penobscot, Piscataquis and St. Croix River basins were near normal.

Groundwater conditions were near normal levels for July with the exception of the Downeast region as water levels were reported to be above normal. Calais, in Washington County reported well above normal water levels.

In regards to Drought Monitoring, conditions for the entire HSA remained in the normal range. Evaporation for the month of July measured at Caribou was 6.40 inches. This outweighed the monthly rainfall of 2.49 inches, resulting in significant drying of the top soil conditions compared to the month of June.

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	4.92	4.31	+0.61	NA	NA	NA	NA
Caribou	2.49	4.08	-1.59	NA	NA	NA	NA
Houlton	1.83	3.66	-1.83	NA	NA	NA	NA
*Millinocket	2.35	3.85	-1.50	NA	NA	NA	NA
Bangor	4.46	3.46	+1.00	NA	NA	NA	NA

*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	55	NA	Below Normal	1341	68
St. John River at Fort Kent	NA	2481	NA	Below Normal	5929	92
Aroostook River at Washburn	NA	1337	NA	Normal	1654	88
Narraguagus River at Cherryfield	NA	369	NA	Above Normal	227	71
E Br Penobscot River at Grindstone	NA	1519	NA	Normal	837	116
Mattawamkeag nr Mattawamkeag	NA	1756	NA	Above Normal	1418	84
Piscataquis River nr Dover-Foxcroft	NA	140	NA	Normal	298	116

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
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McFarland Hill	NA	NA	NA	NA	15
Amherst	NA	18.47	NA	Above Normal	29
Hadley Lakes	NA	4.90	NA	Above Normal	33
Kenduskeag	NA	20.43	NA	Normal	41
Calais	NA	-0.17	NA	Much Above Normal	19
Millinocket	NA	9.06	NA	Normal	25
Clayton Lake	NA	15.25	NA	Normal	40
Fort Kent	NA	7.20	NA	Normal	41

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.

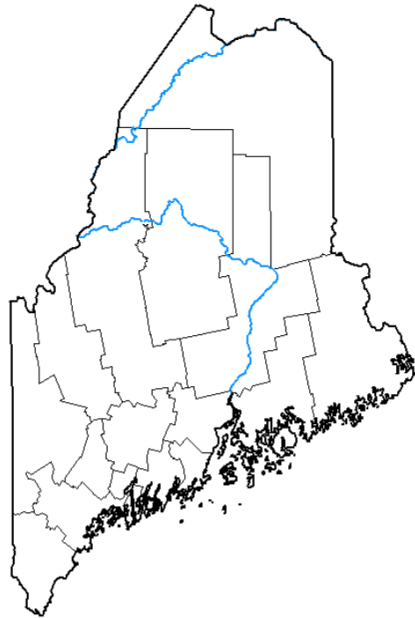
**Non-Routine Hydrologic Products
July 2019
WFO Caribou, ME**

PIL	TIME (UTC)	Date	Description
PWMFLSCAR	2122	7/6/19	Urban and Small Stream Flood Advisory
PWMFLSCAR	0119	7/17/19	Urban and Small Stream Flood Advisory

Drought Conditions for July 2019

July 2nd, 2019

U.S. Drought Monitor Maine



July 2, 2019
(Released Wednesday, Jul. 3, 2019)
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 06-25-2019	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 04-02-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	94.48	5.52	0.00	0.00	0.00	0.00
Start of Water Year 09-25-2018	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago 07-03-2018	63.33	36.67	14.57	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. See accompanying text summary for forecast statements.

Author:

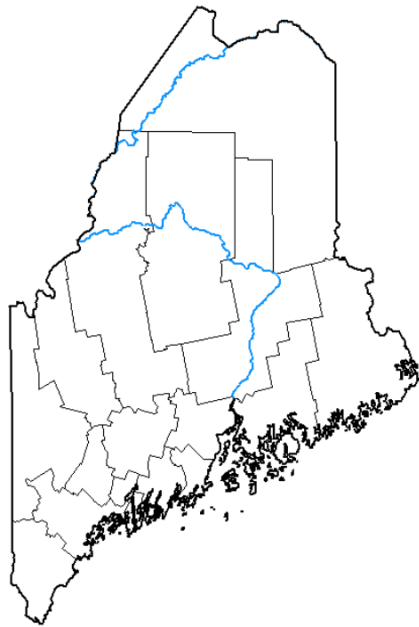
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

July 30th , 2019

**U.S. Drought Monitor
Maine**



July 30, 2019
(Released Thursday, Aug. 1, 2019)
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 <small>07-23-2019</small>	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago <small>04-30-2019</small>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <small>01-01-2019</small>	94.48	5.52	0.00	0.00	0.00	0.00
Start of Water Year <small>09-25-2018</small>	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago <small>07-31-2018</small>	47.64	52.36	13.33	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. See accompanying text summary for forecast statements.

Author:
Curtis Riganti
National Drought Mitigation Center



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