

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
August 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
September 23rd, 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.

No major flooding was reported in August. There were two Urban and Small Stream Flood Advisories issued during the month of August for some high water in lowland areas. The dates are listed in the table provided.

August came in with slightly above normal temperatures for most of the region. There was some variance however as temperatures ranged from 0.3 degrees below normal at Houlton to 1.5 degrees above normal for Caribou. There were no 90 degree days in the month of August across the HSA, which is unusual. Caribou's highest temperature of 85 degrees occurred on the 6th. Houlton recorded a high temperature of 86 degrees on the 2nd, while Bangor came in with 85 degrees on the 2nd and 3rd

Precipitation varied widely across the HSA with the northern areas seeing amounts below normal for the month of August, while the Maine Central Highlands, Penobscot Valley into the Downeast region seeing above normal precipitation. Bangor recorded 7.54 inches for the month of August, which was second only to August 2011, when 8.32 inches of rain fell in Bangor. The highest daily total came on the 8th with a record of 3.11 inches. This was the second greatest daily total for August at Bangor, while in 1965, 3.67 inches on August 19th. Millinocket recorded a daily total of 1.12 inches of rainfall on the 8th, while Houlton recorded 1.39 inches of rainfall for the same date. Caribou recorded 2.51 inches for the month of August, which was 1.15 inches below normal for the month.

Streamflows across the HSA were near normal across much of Northern Maine and the Maine Central Highlands. The exception to this, was from Southeast Aroostook County southward across the Downeast region, which included the Penobscot and St. Croix basins, as streamflows were above normal.

Groundwater conditions were near normal levels for August across Northern Maine and the Maine Central Highlands. The exception to this was across the Fort Kent region with levels above normal. Groundwater levels across the Downeast region were reported to be from above to much above normal. Calais, in Washington County, was the exception with high water levels.

In regards to Drought Monitoring, conditions for the entire HSA continued in the normal range. Evaporation for the month of July measured at Caribou was 4.67 inches. This outweighed the monthly rainfall by a little more than two inches. This resulted dry soil conditions for Northern Maine.

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	2.43	4.00	-1.57	NA	NA	NA	NA
Caribou	2.51	3.66	-1.15	NA	NA	NA	NA
Houlton	3.84	3.68	+0.16	NA	NA	NA	NA
*Millinocket	3.98	3.94	+0.06	NA	NA	NA	NA
Bangor	7.54	2.98	+4.56	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	754 – 1790	897	0.77	Normal	1341	68
St. John River below Fish River at Fort Kent	3900 – 8800	4800	0.93	Normal	5929	92
Aroostook River at Washburn	749 - 1740	1340	0.93	Normal	1654	88
Narraguagus River at Cherryfield	99.2 – 203	369	1.87	Above Normal	227	71
E Br Penobscot River at Grindstone	826 – 1560	1520	2.09	Normal	837	116
Mattawamkeag River near Mattawamkeag	471 – 1420	1760	1.43	Above Normal	1418	84
Piscataquis River nr Dover-Foxcroft	92.4 – 295	140	0.54	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	22.70 – 19.80	18.34	-3.36	Above Normal	29
Hadley Lakes	5.58 – 4.86	4.10	1.12	Much Above Normal	33
Kenduskeag	23.30 – 22.00	20.35	-2.25	Much Above Normal	41
Calais	3.75 – 1.63	-0.17	-2.91	High	19
Millinocket	9.84 – 8.63	9.11	-0.05	Normal	25
Clayton Lake	15.60 – 15.00	15.43	0.13	Normal	40
Fort Kent	9.90 – 7.41	7.23	-1.40	Above 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.

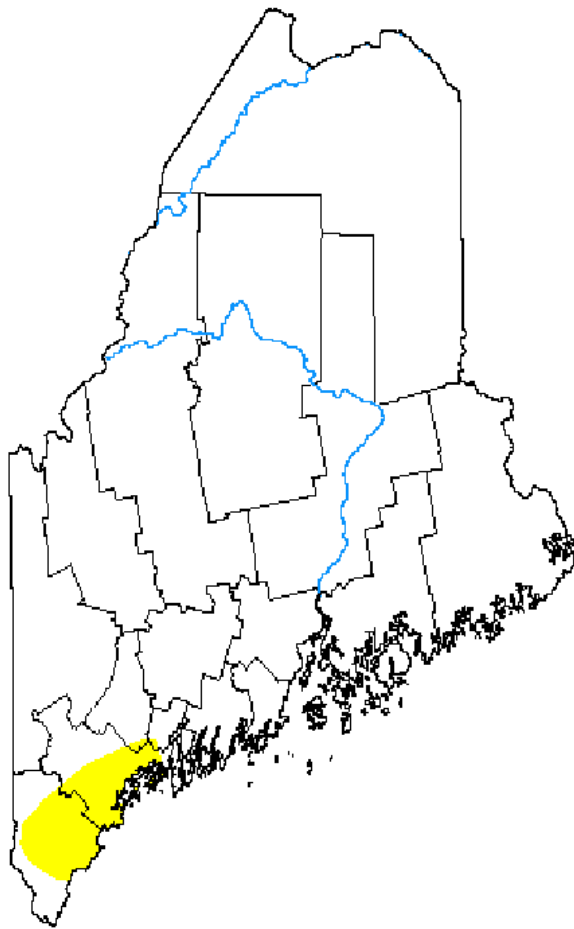
**Non-Routine Hydrologic Products
August 2019
WFO Caribou, ME**

PIL	TIME (UTC)	Date	Description
PWMFLSCAR	1813	8/7/19	Urban and Small Stream Flood Advisory
PWMFLSCAR	0543	8/8/19	Urban and Small Stream Flood Advisory

Drought Conditions for August 2019

U.S. Drought Monitor Maine

August 6, 2019
(Released Thursday, Aug. 8, 2019)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	98.78	3.24	0.00	0.00	0.00	0.00
Last Week <i>07-30-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago <i>06-07-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>01-01-2019</i>	94.48	5.52	0.00	0.00	0.00	0.00
Start of Water Year <i>09-29-2018</i>	41.80	58.10	4.88	0.00	0.00	0.00
One Year Ago <i>08-07-2018</i>	52.08	47.92	7.39	0.00	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

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

Author:

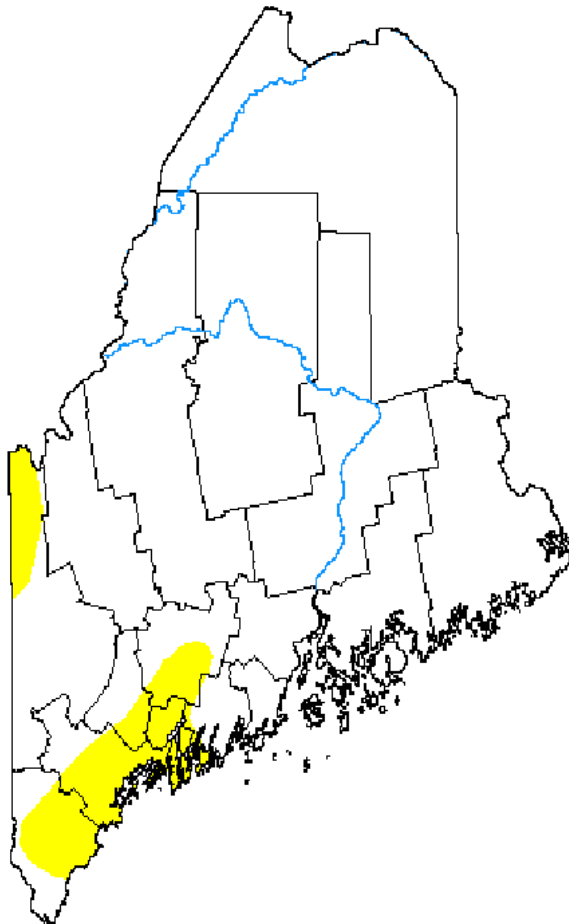
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

U.S. Drought Monitor Maine

August 27, 2019
(Released Thursday, Aug. 29, 2019)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.76	7.24	0.00	0.00	0.00	0.00
Last Week <i>08-20-2019</i>	94.05	5.95	0.00	0.00	0.00	0.00
3 Months Ago <i>06-28-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>01-01-2019</i>	94.48	5.52	0.00	0.00	0.00	0.00
Start of Water Year <i>09-29-2018</i>	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago <i>08-28-2018</i>	54.81	45.19	7.39	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:

Jessica Blunden
NCEI/NOAA



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