

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 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
September 13th, 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.

August 2020

Some minor flooding occurred during the month of August. A complex of thunderstorms moved across the region on the 25th. Some minor flooding occurred in Presque Isle with storm drains spilling over onto some streets. A Flood Advisory for Urban and Small Streams was issued for that event.

The very warm summer continued with the month of August coming in above normal with temperatures averaging from 1.5 to 3 degrees above normal. It was the second warmest July on record for Caribou, with July 2018 being the warmest. In Caribou, August ranked as the 8th warmest on record. In Houlton, August ranked as the 12th warmest on record. Interestingly enough, neither Bangor nor Millinocket ranked in the top 20 for the warmest August on record.

Rainfall for the most part was below normal. Caribou came in with 2.24 inches for August, which was 1.52 inches below normal. Houlton came in with only 1.47 inches, which was 2.24 inches below normal. However, there were some sites such areas such as the western St. John Valley, the Bangor and coastal Washington County saw rainfall above normal. Bangor recorded 4.21 inches of precipitation, which was 0.75 inches above normal. There were two rain events in August. A complex of storms brought some heavy rain to portions of the region with portions of the Maine Central Highlands and the Downsat region receiving the heaviest rainfall. Bangor recorded a daily precipitation record of 1.74 inches on August 18th, which broke the previous record of 1.32 inches set in 1958. Millinocket recorded 1.09 inches of rain on the same day. The other event was on the 29th and 30th w/the region seeing 0.75 to 1.25 inches of rainfall. Some sites along the Washington County coast received up to 2.00 inches of rain.

Streamflows across the region for the most part were much below normal for August. A number of river gages continued to record near Record Low flows. Streamflows however did climb to normal flows for the Nine Mile Bridge on the St. John River.

Groundwater levels fluctuated some during the month of August, once again thanks to some needed rainfall. Some wells remained much below normal across portions of the Maine Central Highlands, Northern Maine and Downeast Maine including the coast. Interestingly enough, Calais and Fort Kent

came in with normal Groundwater levels due to some needed rain. Clayton Lake in NW Aroostook County dropped to low levels.

In regards to Drought monitoring, the region saw conditions worsen to **Moderate Drought(D1)** across just about the entire region by the end of the month, with the exception of Northern and Central Aroostook County as the category held at **Severe Drought(D2)** through the first two weeks of August. By the end of the month, **Severe Drought(D2)** conditions extended into northern Penobscot and Piscataquis County and all of the eastern 3rd of the region, with the rest of the region holding in **Moderate Drought(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	2.73	4.00	-1.27	NA	NA	NA	NA
Caribou	2.24	3.76	-1.52	0.0	0.0	0.0	0
Houlton	1.47	3.68	-2.21	NA	NA	NA	NA
*Millinocket	2.86	3.94	-1.08	NA	NA	NA	NA
Bangor	3.55	2.98	+0.57	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 (mi ²)	Years of Record
St. John River at Ninemile Bridge	415 – 2020	438	0.38	Normal	1341	69
St. John River at Fort Kent	2250 - 5920	1250	0.24	Much Below Normal	5929	93
Aroostook River at Washburn	431 - 1240	176	0.12	Much Below Normal	1654	90
Narraguagus River at Cherryfield	63.2 - 182	52.8	0.27	Below Normal	227	72
E Br Penobscot River at Grindstone	552 – 1040	410	056	Much Below Normal	837	117
Mattawamkeag nr Mattawamkeag	262 - 966	164	0.13	Below Normal	1418	85
Piscataquis River nr Dover-Foxcroft	61 - 200	45.7	0.18	Below Normal	298	117

Groundwater Levels

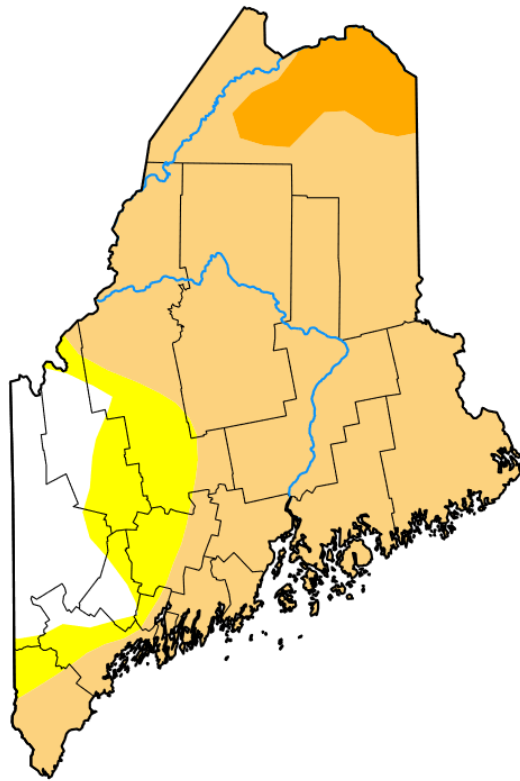
Station	Normal Range (ft)	Mean Water Level Below Land-sfc Datum (ft)	Departure from Month-end Median (ft)	Percentile Class	Years of Record
Amherst	25.10 – 22.10	25.45	2.25	Much Below Normal	30
Crooked Road	NA	NA	NA	NA	15
Hadley Lakes	5.88 – 5.46	6.14	0.44	Below Normal	34
Kenduskeag	24.30 – 23.20	25.12	1.32	Much Below Normal	42
Calais	3.68 – 2.22	2.81	-0.16	Normal	20
Millinocket	10.50 – 9.44	10.66	0.71	Below Normal	26
Clayton Lake	16.30 – 15.30	16.74	0.94	Low	41
Fort Kent	11.10 – 8.46	10.42	0.74	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.

Drought Conditions for August

U.S. Drought Monitor Maine

August 4, 2020
(Released Thursday, Aug. 6, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	10.78	89.22	77.76	6.33	0.00	0.00
Last Week <i>07-28-2020</i>	10.78	89.22	77.76	6.33	0.00	0.00
3 Months Ago <i>05-05-2020</i>	100.00	0.00	0.00	0.00	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>10-01-2019</i>	87.45	12.55	0.00	0.00	0.00	0.00
One Year Ago <i>08-06-2019</i>	96.76	3.24	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:

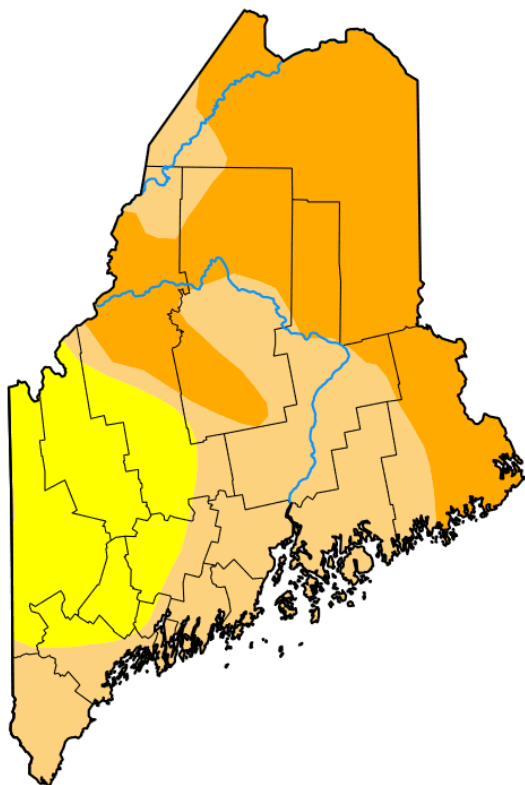
Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

U.S. Drought Monitor Maine

August 25, 2020
(Released Thursday, Aug. 27, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	79.48	42.23	0.00	0.00
Last Week <i>08-18-2020</i>	7.46	92.54	79.42	42.23	0.00	0.00
3 Months Ago <i>05-26-2020</i>	93.80	6.20	0.00	0.00	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>10-01-2019</i>	87.45	12.55	0.00	0.00	0.00	0.00
One Year Ago <i>08-27-2019</i>	92.76	7.24	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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