

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 October 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 November 29th, 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.

October 2020

The very dry conditions saw a change for the month of October along with some well needed rainfall and cooler temperatures.

Precipitation for the month of October Rainfall was well above normal and a dramatic shift after seeing 5 straight months with below normal precipitation. This made a significant dent in the drought conditions, which had worsened to Severe and Extreme across much of northern and central areas in September. The biggest rainfall events came on the 13th and 14th, and again on the 16th and 17th, where anywhere from 2 to 3 inches rain being recorded across the Northern Maine and the Maine Central Highlands. Lesser amounts were recorded across the Downeast region. Caribou came in with 7.215 inches for the month, which was 3.68 inches above normal. This made it the third wettest October on record, with October of 1990 being the wettest with 8.73 inches of precipitation. Bangor recorded 4.40 inches, which was only 0.23 inches above normal. Houlton came in 6.08 inches, which was 2.42 inches above normal, and the 9th wettest October on record. Millinocket followed with 6.48 inches, which was 2.41 inches above normal, and the 15th wettest October on record. Caribou recorded 1.68 inches on the 14th, which set a record. This broke the previous record of 1.15 inches set in 1944. Bangor recorded 1.44 inches of rain on the 13th, which was a record for the date. This broke the previous record of 1.44 inches set in 1959. Millinocket set a record rainfall on the 13 with 1.73 inches.

As for snowfall, the season's first snowfall came late in the month on the 26th where anywhere from 1 to 3 inches was measured across Northern Maine, with a band of heavy of 6 to 10 inches across Northern Somerset County. The NWS office in Caribou measured 1.5 inches of snow on the 26th. The normal snowfall for October in Caribou is 1.6 inches. Bangor recorded a trace of snow for the month.

Temperatures for the month of October across the region were near to slightly above normal, with the exception of the St. John Valley as temperatures averaged out slightly below normal. After starting out quite warm with the warmest day of the month coming on the 10th where many sites recorded temperatures in the 70s. Temperatures cooled off significantly by the last 10 days of the month. Caribou came in with an average temperature for the month of 43.7 degrees, which was 0.4 degrees above

normal. Bangor had an average temperature for the month of October of 27.2 degrees, which was near normal. Frenchville, in the St. John Valley had an average monthly temperature of 41.1 degrees, which was -0.8 degrees below normal.

Streamflows across the region were much below normal for the start of the month, but greatly improved by the end of October with streamflows hitting normal to above normal levels. September. Just about all of river gages across the region continued to record near Record or Record Low flows.

Washburn(WSHM1) and Dover-Foxcroft(DOVM1) recorded Record Low flows in September, with a few sites such as Washburn reporting an All Time Record Low flow.

Many stream and river gages across Northern Maine and Piscataquis basin saw streamflow above normal by the last week of October. Some wells across parts of Northern Maine reported near normal levels such as Calais and Fort Kent. Millinocket came in with levels in the Low category, which is the lowest recorded for this time period. This is a big concern, especially if the region does not receive some much needed rainfall as some of the shallower wells could dry up.

In regards to Drought monitoring, the region saw dramatic improvement during the course October. Conditions across the region went from **Severe(D1)/ Extreme Drought(D2)** down to Abnormally Dry(D0) /**Moderate Drought(D1)** by the 27th.

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	6.04	2.54	3.50	NA	NA	NA	NA
Caribou	7.21	3.53	3.68	1.5	1.6	-0.1	1.0
Houlton	6.08	3.66	+2.42	NA	NA	NA	NA
*Millinocket	6.48	4.07	+2.41	NA	NA	NA	NA
Bangor	4.40	4.17	+0.23	T	0.1	-0.1	T

*Millinocket snowfall measured at wastewater treatment plant, not the ASOS site. Data was not available at this time.

Stream Flows for Selected Rivers September

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	421 – 1871	294	0.24	Below Normal	1341	69
St. John River at Fort Kent	2340 - 6060	1270	0.24	Much Below Normal	5929	93
Aroostook River at Washburn	418 - 1350	96.1	0.06	Low	1654	90

Narraguagus River at Cherryfield	59.3 – 208	39.8	0.20	Much Below Normal	227	72
E Br Penobscot River at Grindstone	543 – 1090	443	0.59	Below Normal	837	117
Mattawamkeag nr Mattawamkeag	205 - 922	47.2	0.04	Much Below Normal	1418	85
Piscataquis River nr Dover-Foxcroft	57.2 - 217	12.9	0.05	Low	298	117

Groundwater Levels

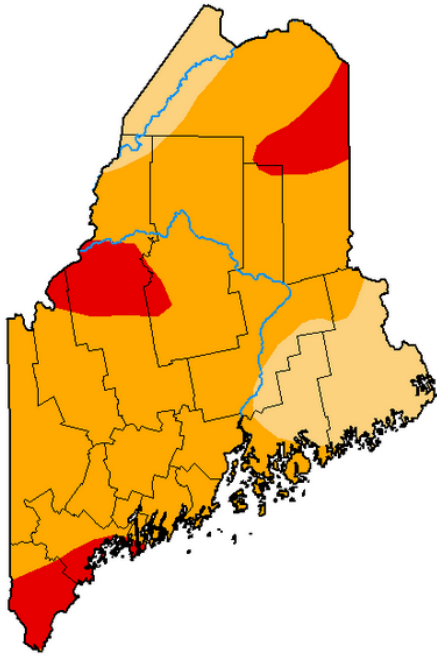
Station	Normal Range (ft)	Mean Water Level Below Land-sfc Datum (ft)	Departure from Month-end Median (ft)	Percentile Class	Years of Record
Amherst	26.00 – 22.30	26.79	1.99	Below Normal	30
Crooked Road	NA	NA	NA	NA	15
Hadley Lakes	6.34 – 5.61	6.55	0.58	Below Normal	34
Kenduskeag	25.40 – 23.40	25.86	1.36	Much Below Normal	42
Calais	3.86 – 2.33	3.12	0.17	Normal	20
Millinocket	11.00 – 10.00	11.38	0.88	Low	26
Clayton Lake	16.30 – 15.00	16.82	0.72	Much Below Low	41
Fort Kent	11.80 – 9.48	11.30	0.70	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 October

**U.S. Drought Monitor
Maine**

October 6, 2020
(Released Thursday, Oct. 8, 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	100.00	82.59	11.94	0.00
Last Week 09-29-2020	0.00	100.00	100.00	83.86	7.28	0.00
3 Months Ago 07-07-2020	6.60	93.40	80.44	8.40	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 09-29-2020	0.00	100.00	100.00	83.86	7.28	0.00
One Year Ago 10-08-2019	93.38	6.62	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:

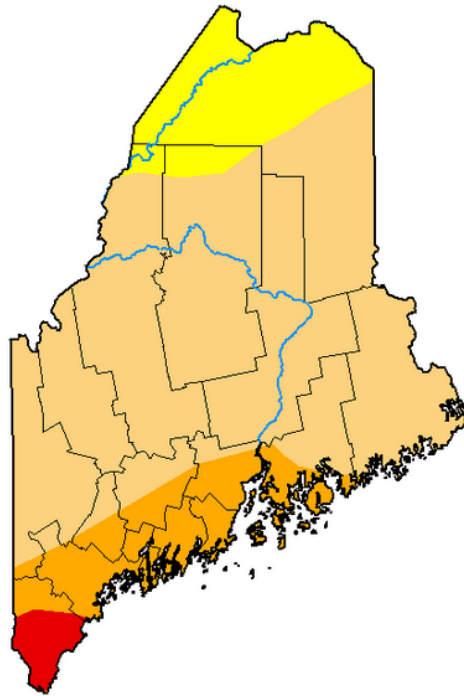
Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

**U.S. Drought Monitor
Maine**

October 27, 2020
(Released Thursday, Oct. 29, 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	86.20	15.05	2.20	0.00
Last Week <small>10-20-2020</small>	0.00	100.00	100.00	15.05	2.20	0.00
3 Months Ago <small>07-28-2020</small>	10.78	89.22	77.76	6.33	0.00	0.00
Start of Calendar Year <small>12-31-2019</small>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year <small>09-29-2020</small>	0.00	100.00	100.00	83.86	7.28	0.00
One Year Ago <small>10-29-2019</small>	93.21	6.79	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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