

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
December 2017

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
January 21, 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.

December 2017

December 2017 finished with average temperatures running below normal. Temperatures across the region ranged from 4 to 7.5 degrees below average for the month of December. Caribou had an average temperature of 13.4degrees which was 4.8 degrees below the average for December. It was the coldest December at Caribou since 2013. Bangor recorded an average temperature of 18.1 degrees which was 6.5 degrees below average for December. December 2017 was the coldest in Bangor since 1989. A high temperature of -1F was observed on the 28th in Bangor. This was the lowest high temperature ever observed in Bangor. The coldest mornings occurred on the 29-30th when low temperatures in the northwest valleys dropped lower than -30F. Big Black River in NW Aroostook County recorded -33F on the 29th and 30th.

In regards to precipitation, precipitation varied from above normal across Northeast Maine and the interior Downeast region to below normal for portions of the Central Highlands and NW Maine. This was quite a contrast from the last couple of months. Caribou recorded 4.12 inches for December which was 0.85 inches above normal for the month. Bangor recorded 3.83 inches which was 0.35 inches above normal. This precipitation was a benefit to help alleviate the abnormally dry conditions that existed along the coastal plain. Washington County showed an improvement with conditions returning to near normal while some sites along the Hancock County coast still ran abnormally dry.

A series of storms brought some abundant snowfall to the region especially from the Central Highlands to the Maine-Quebec border. Caribou recorded 34.2 inches of snow for the month. This was 11.3 inches above normal for December. Bangor came in with 27.7 inches for the month which was 13.3 inches above normal for the month. Snow depths by the end of the month ranged from 15 to 20 inches across the Central Highlands and the Penobscot River Valley to 20 to 30 inches for Northern Maine including the Allagash region. The Downeast coastal region had a snow depth of 6 to 12 inches.

No flooding was reported during the month of December.

Precipitation Totals for Select Locations
All units inches

Location	Total Precip	Normal Precipitation	Departure from Normal	Snowfall	Normal Snowfall	Departure from Normal Snowfall	Greatest Snow Depth
Frenchville	1.89	2.54	-0.65	NA	NA	NA	NA
Caribou	4.12	3.27	+0.85	34.2	22.9	11.3	19
Houlton	3.24	3.29	-0.05	NA	NA	NA	NA
Millinocket	2.68	3.53	-0.85	NA	NA	NA	NA
Bangor	3.83	3.48	0.35	27.7	14.2	13.3	16

*Millinocket snowfall measured at wastewater treatment plant, not the ASOS site

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	NA	NA	NA	1341	67
St. John River at Fort Kent	3550 – 7740	3600	0.70	Normal	5665	91
Aroostook River at Washburn	NA	NA	NA	NA	1654	87
Narraguagus River at Cherryfield	351 – 932	440	2.23	Normal	227	69
E Br Penobscot River at Grindstone	NA	NA	NA	NA	837	115
Mattawamkeag nr Mattawamkeag	1310 – 3580	2900	2.36	Normal	1418	83
Piscataquis River nr Dover-Foxcroft	259 – 772	285	1.10	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	4.16 – 1.02	0.95	0.84	Normal	13
Crooked Road	5.16 – 4.65	4.87	-0.09	Normal	13
Hadley Lakes	5.47 – 4.25	5.16	0.52	Normal	30
Kenduskeag	21.90 – 19.80	22.09	1.09	Low	37

Calais	1.66 – 0.46	0.98	0.01	Normal	16
Millinocket	10.80 – 9.23	10.09	0.56	Normal	22
Clayton Lake	14.60 – 13.30	14.71	0.41	Low	37
Fort Kent	11.70 – 8.41	9.40	-0.40	Normal	38

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
December 2017
WFO Caribou, ME**

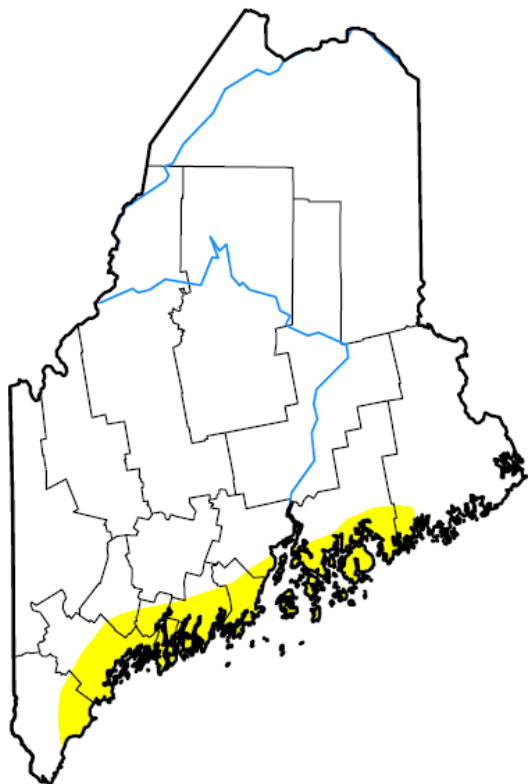
PIL	TIME (UTC)	Date	Description

**Significant River Crests
December 2017
WFO Caribou, ME**

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

U.S. Drought Monitor
Maine

December 5, 2017
 (Released Thursday, Dec. 7, 2017)
 Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.38	7.62	0.00	0.00	0.00	0.00
Last Week <i>11-28-2017</i>	92.38	7.62	0.00	0.00	0.00	0.00
3 Months Ago <i>09-05-2017</i>	35.65	64.35	28.88	0.00	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	23.74	76.26	62.91	0.57	0.00	0.00
Start of Water Year <i>09-26-2017</i>	57.81	42.19	24.62	0.00	0.00	0.00
One Year Ago <i>12-06-2016</i>	21.21	78.79	67.66	36.51	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:

David Simeral
 Western Regional Climate Center

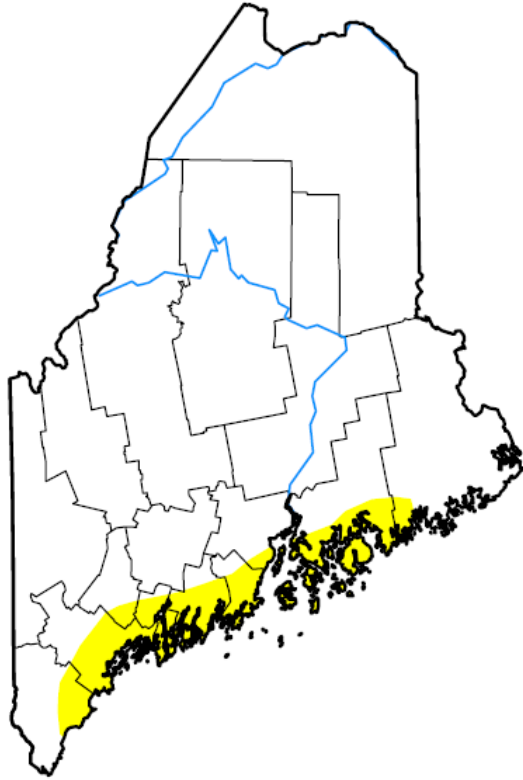


<http://droughtmonitor.unl.edu/>

Drought Monitor for December 5, 2017

U.S. Drought Monitor
Maine

December 26, 2017
(Released Thursday, Dec. 28, 2017)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.38	7.62	0.00	0.00	0.00	0.00
Last Week <small>12-19-2017</small>	92.38	7.62	0.00	0.00	0.00	0.00
3 Months Ago <small>09-26-2017</small>	57.81	42.19	24.62	0.00	0.00	0.00
Start of Calendar Year <small>01-03-2017</small>	23.74	76.26	62.91	0.57	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>12-27-2016</small>	23.74	76.26	62.91	18.50	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:

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NOAA/NWS/NCEP/CPC



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

Drought Monitor for December 26, 2017