

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
January 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
February 25th, 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.

January 2019

Minor flooding occurred during the month of January. This minor flooding occurred on the 24th as a significant storm system brought 1 to 3 inches of rain across the region with over 3 inches of rain recorded along the coast. This event came on the heels of a major snowstorm that brought 14 to 24 inches across northern and northwest areas with 8-16 inches across the Maine Central Highlands and Downeast. The warm temperatures and heavy rainfall led to rapid snowmelt w/clogged storm drains, flooded basements, and some roads and culverts being washed out across the Downeast region. The snowpack was reduced down to trace amounts across the Bangor and Downeast region. Further north, the deep snowpack was able to absorb the rainfall w/a reduction in the snowpack of 3-5 inches. Further south, the heavy rainfall and mild temperatures allowed ice on the Penobscot and Piscataquis Rivers to break up with some of the ice flushing out. Further north, ice held in with some weakening noted on the St. John River from Fort Kent to Dickey. Colder temperatures moved back into the region allowing for ice to reform on the Penobscot and Piscataquis Rivers. This also allowed for the existing ice on the northern rivers to thicken. Ice jams remained in place on the Aroostook River from Washburn to Crousville and near the Caribou-Fort Fairfield town line. An ice jam set up on the St. John River from the town of St. John to St. Francis. Other jams remain in place on the St. John River near the towns of St. John, Fort Kent, Frenchville and the Madawaska-Grand Isle. No flooding occurred with these ice jams. Ice thickness were estimated to be around 12 inches on the Aroostook and on the Allagash River.

Temperatures for the month of January varied from 1 degree above average to 2 degrees below average. Bangor came in with an average temperature for the month of January of 1.5 degrees above average. Millinocket came in with an average temperature for the month of -0.7 degrees.

Precipitation overall was above average for the HSA with the exception of Frenchville which came in with precipitation around 0.50 inches below average. In regards to precipitation, Bangor recorded 5.15 inches which was 2.26 inches above average. This was the 10th wettest January on record. Caribou recorded 5.64 inches, which was 2.93 inches above average. The 5.64 inches in Caribou set a record for the month breaking the previous precipitation record of 5.60 inches set back in 1995. Caribou set daily precipitation records with 1.45 inches set back on the 20th. This broke the previous record of 1.06 inches

set back in 1986. Another precipitation record was set on the 24th with 1.01 inches. This broke the previous record of 0.97 inches set in 1998.

January was a snowy month for much of the HSA. Caribou recorded 59.8 inches of snow for January, which was 34.6 inches above average. This smashed the previous record of 44.5 inches set back in 1994. The 59.8 inches came one tenth (0.10) of inch short of tying the all-time snowiest month on record, which was December 1972, with 59.9 inches. Caribou set a snowfall record on the 20th with 16.9 inches. This broke the previous record of 11.1 inches set in 2005. Bangor came in with 20.5 inches for month of January. This was 1.3 inches above average.

Streamflows across much of the HSA were above normal for January.

Groundwater conditions remained at near to slightly above normal levels.

In regards to Drought monitoring, the above average precipitation helped to improve conditions with the entire HSA seeing near normal conditions.

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	1.92	1.76	+0.16	NA	NA	NA	NA
Caribou	5.64®	2.71	+2.93	59.8 ®	25.2	+34.6	34
Houlton	4.25	2.86	+1.39	NA	NA	NA	NA
*Millinocket	2.42	2.93	-0.51	NA	NA	NA	NA
Bangor	5.15	2.89	+2.26	20.5	19.2	+1.3	9

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

® Record precipitation for the month and Record snowfall for the month.

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	68
St. John River at Fort Kent	2210 – 4420	4700	0.91	Above Normal	5929	92
Aroostook River at Washburn	NA	NA	NA	NA	1654	88
Narraguagus River at Cherryfield	335 - 716	702	3.57	Normal	227	70

E Br Penobscot River at Grindstone	NA	NA	NA	NA	837	116
Mattawamkeag nr Mattawamkeag	881 – 2070	2370	1.93	Above Normal	1418	84
Piscataquis River nr Dover-Foxcroft	185 - 426	466	1.80	Above Normal	298	116

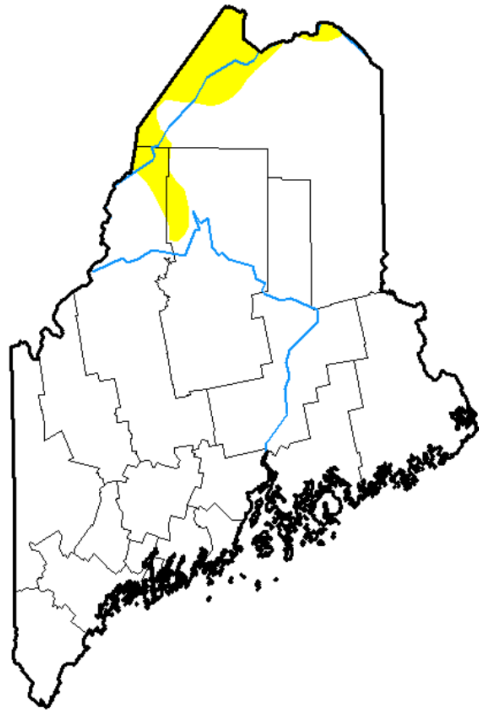
Groundwater Levels

Station	Normal Range (ft)	Mean Water Level Below Land-sfc Datum (ft)	Departure from Month-end Median (ft)	Percentile Class	Years of Record
McFarland Hill	4.27 – 0.44	0.09	-2.51	Above Normal	15
Crooked Road	5.40 – 4.98	5.00	-0.15	Normal	15
Hadley Lakes	5.16 – 4.36	4.08	-0.59	Above Normal	33
Kenduskeag	22.40 – 20.30	20.42	-0.58	Normal	41
Calais	2.60 – 0.89	1.00	-0.54	Normal	19
Millinocket	10.70 – 8.88	9.48	0.05	Normal	24
Clayton Lake	14.90 – 13.90	14.03	-0.47	Normal	40
Fort Kent	11.70 – 8.76	8.23	-1.63	Above Normal	40

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 January

January 1st, 2019



	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	94.48	5.52	0.00	0.00	0.00	0.00
Last Week <i>12-25-2018</i>	91.32	8.68	0.00	0.00	0.00	0.00
3 Months Ago <i>10-02-2018</i>	29.37	70.63	3.06	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>09-25-2018</i>	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago <i>01-02-2018</i>	92.38	7.62	0.00	0.00	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.

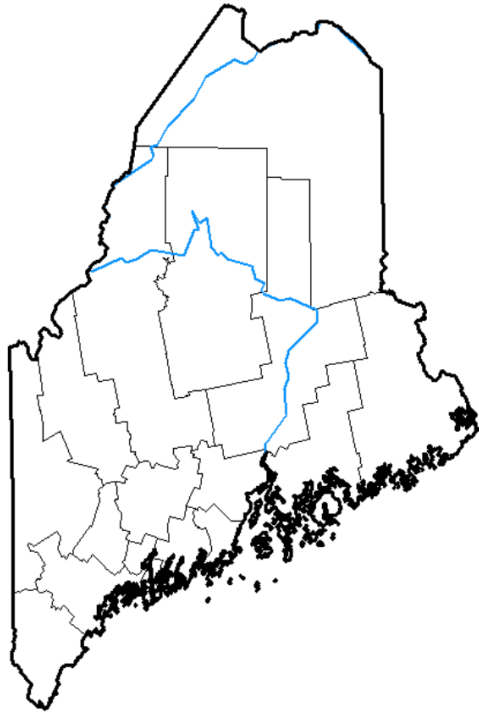
Author:

David Miskus
NOAA/NWS/NCEP/CPC



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

January 29th, 2019



	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 <i>01-22-2019</i>	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago <i>10-30-2018</i>	81.85	18.15	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>09-25-2018</i>	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago <i>01-30-2018</i>	92.38	7.62	0.00	0.00	0.00	0.00

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Author:

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National Drought Mitigation Center



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