

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 February 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 March 19th, 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.

February 2019

No flooding occurred during the month of February.

February came in colder than normal with a few snow events during the month. The first significant snow event came on the 13th with over a foot of snow from Millinocket to Caribou and 6 to 10 inches of snow accumulated across the St. John Valley and the Downeast region. Another significant event came on the 24th and 25th with the highest snow totals of 10 inches or more across Northern Maine with only 1 to 3 inches across the Downeast region including the coast. Caribou recorded 10.8 inches of snow for that event. The wind behind this event was even a bigger story as it led to widespread blowing and drifting snow across the Maine Central Highlands up to the Maine-Canadian border. Numerous road closures took place for a two day period across the Crown of Maine.

Ice thickened up on the rivers including the Penobscot and Piscataquis Rivers. Ice thicknesses were measured by the USGS to be 18+ inches on the northern Branch of the Penobscot River near Grindstone, with up to 22 inches of thickness on the Penobscot near Bangor. The Piscataquis had ice thicknesses increase to a solid foot near Dover-Foxcroft. The ice thickness varied across the northern rivers such as the Aroostook and St. John Rivers due to the deep snow cover helping to act as an insulator. Ice was thickest on the Aroostook River with measurements of up to 2 feet. The St. John River ice thickness varied from 8 to 14 inches. The Allagash River had ice thicknesses around 18 inches. Ice thicknesses were near normal.

Ice jams remained in place on the Aroostook River from Washburn to Crouseville and near the Caribou-Fort Fairfield town line. Ice jams remained in place on the St. John River from the town of St. John to St. Francis, and near Fort Kent down to the Madawaska-Grand Isle line. Ice jams set up on the Piscataqujs River in Dover-Foxcroft and on the Pleasant River near Milo.

Temperatures for the month of February were below normal across the HSA. The first half of the month saw a variation with spells of above and below normal temperatures. The second half of the month came

in with below normal temperatures. Bangor came in 0.3 degrees below normal for the month while Caribou recorded temperatures of 2.4 degrees below normal.

Precipitation overall was near to slightly above normal across the northern areas. The Bangor and Penobscot region came in below normal for the month of February. Caribou recorded 2.92 inches of precipitation which was 0.71 inches above normal, while Bangor came in with 1.83 inches of precipitation which was 0.69 inches below normal.

February came in above normal for snowfall across the region. Caribou came in with 35.4 inches of snowfall which was 13.2 inches above normal. Bangor came in with 16.6 inches which was 1.9 inches above normal for February. The mean snow depth at Caribou was 36.3 inches, which was well above the 30 year average of 18.8 inches. It ranked as the 5th highest mean snow depth for February.

Streamflows across much of the HSA were near to slightly above normal for February.

Groundwater conditions remained at near to slightly above normal levels for February.

In regards to Drought Monitoring, condition for the entire HSA stayed in normal range.

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	0.93	0.81	+0.12	NA	NA	NA	NA
Caribou	2.92	2.21	+0.71	35.4	22.2	+13.2	45
Houlton	1.87	2.00	-0.13	NA	NA	NA	NA
*Millinocket	2.39	2.18	+0.21	NA	NA	NA	NA
Bangor	1.83	2.52	-0.69	16.6	14.7	+1.9	12

*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	NA	NA	NA	NA	1341	68
St. John River at Fort Kent	NA	1798	NA	Normal	5929	92
Aroostook River at Washburn	NA	NA	NA	NA	1654	88
Narraguagus River at Cherryfield	NA	404	NA	Normal	227	70

E Br Penobscot River at Grindstone	NA	NA	NA	NA	837	116
Mattawamkeag nr Mattawamkeag	NA	2134	NA	Above Normal	1418	84
Piscataquis River nr Dover-Foxcroft	NA	345	NA	Above Normal	298	116

Groundwater Levels

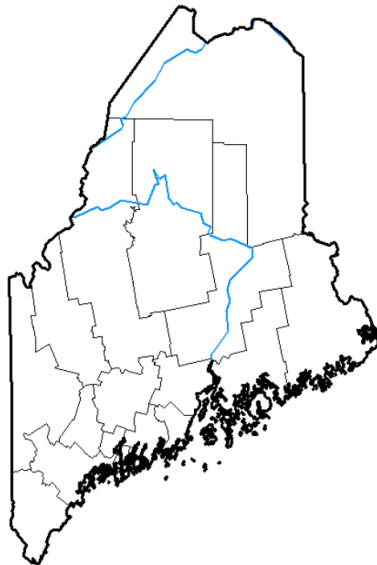
Station	Normal Range (ft)	Mean Water Level Below Land-sfc Datum (ft)	Departure from Month-end Median (ft)	Percentile Class	Years of Record
McFarland Hill	NA	2.58	NA	Above Normal	15
Crooked Road	NA	NA	NA	NA	15
Hadley Lakes	NA	4.31	NA	Above Normal	33
Kenduskeag	NA	21.15	NA	Normal	41
Calais	NA	1.12	NA	Above Normal	19
Millinocket	NA	9.40	NA	Normal	24
Clayton Lake	NA	14.49	NA	Normal	40
Fort Kent	NA	8.91	NA	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 February

February 5th, 2019

U.S. Drought Monitor Maine



February 5, 2019

(Released Thursday, Feb. 7, 2019)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	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 <small>01-29-2019</small>	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago <small>11-06-2018</small>	87.97	12.03	0.00	0.00	0.00	0.00
Start of Calendar Year <small>01-01-2019</small>	94.48	5.52	0.00	0.00	0.00	0.00
Start of Water Year <small>09-25-2018</small>	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago <small>02-06-2018</small>	97.65	2.35	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:

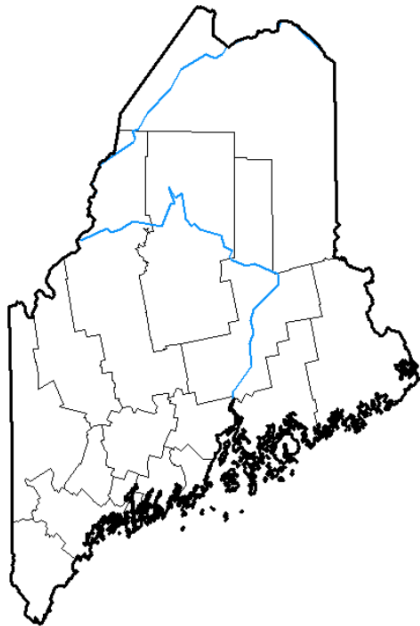
Richard Tinker
CPC/NOAA/NWS/NCEP



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

February 26th, 2019

U.S. Drought Monitor
Maine



February 26, 2019
(Released Thursday, Feb. 28, 2019)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	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 02-19-2019	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 11-27-2018	90.47	9.53	0.00	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	94.48	5.52	0.00	0.00	0.00	0.00
Start of Water Year 09-25-2018	41.90	58.10	4.89	0.00	0.00	0.00
One Year Ago 02-27-2018	100.00	0.00	0.00	0.00	0.00	0.00

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Author:
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U.S. Department of Agriculture



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