

**State of Maine
Drought Task Force
Report on Current Hydrologic Conditions
December 19, 2024**

This report serves to inform Drought Task Force members and the public of current drought conditions, reservoir levels, precipitation, temperature forecasts, drinking water impacts, wildfire risk, agricultural impacts, and the online resources used to monitor these conditions.

Overview

- The [U.S. Drought Monitor](https://droughtmonitor.unl.edu/) reports that 32.6% of the state is Abnormally Dry, 60.8% is in Moderate Drought, and 0.1% is in Severe Drought by area.
- An estimated 92% of Maine's population resides in drought-stricken regions.
- 2024 was one of the top 5 driest Falls on record with precipitation deficits of 5-8 inches.
- Snowpack increases are not expected until after the New Year.
- There was noticeable improvement in streamflow conditions throughout Maine from rainfall in November and December.
- Late onset drought spared most agriculture from drought impacts, however the Drinking Water Program has seen a large increase in dry well complaints
- Public water suppliers have so far reported minimal impacts.
- The total count of wildfires is slightly above average, Maine Forest Service notes that some of the most destructive wildfires in Maine have occurred in fall.

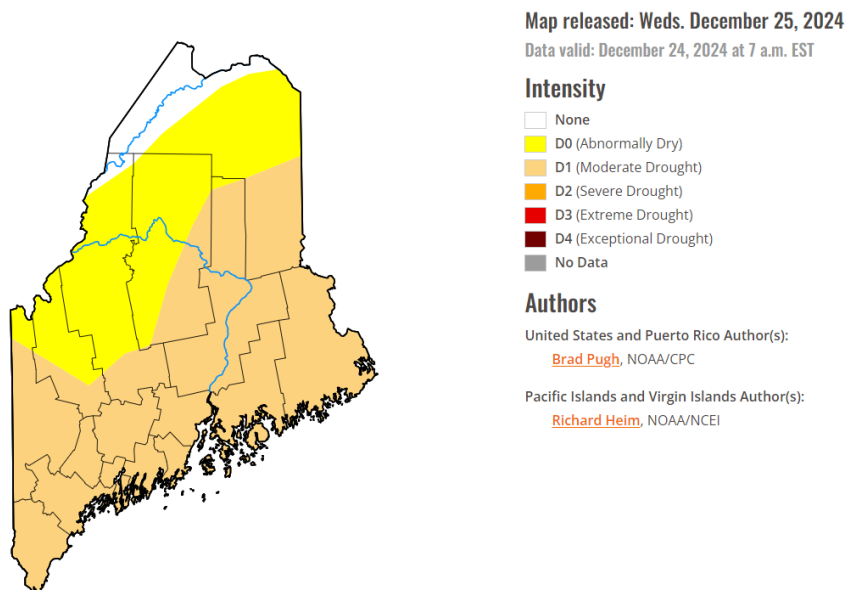


Figure 1: U.S. Drought Monitor: <https://droughtmonitor.unl.edu/>;

Access Drought Task Force reports here: www.maine.gov/mema/hazards/drought-task-force. This report summarizes information presented by Task Force members on current hydrologic and drought conditions as of this date. Task Force partners will report any drought-related impacts for which they are notified.

Current Hydrologic Conditions

Stream Flows

There was noticeable improvement in streamflow conditions throughout Maine with Nov/Dec rainfall. Some regulated basins are below normal, but otherwise flows are normal to above normal. Rivers are beginning to ice over in northern/western basins and additional rainfall will be needed to maintain flows at the current level.

Ground Water

While recent rains have recharged many wells in the state, the recharge simply brought the wells out of record low conditions to below normal conditions. Additional rainfall, with an unfrozen ground, will be needed for further improvement. As we go into winter, snowpack will be critical to potential recharge in the spring.

Weather Review and Outlook

One of the driest falls on record for Maine with rainfall deficits averaging 5 to 8 inches between September 1 and December 19. Drought conditions persist, although slightly mitigated from a wetter pattern in the end of November and beginning of December. Transition to winter means that snowpack and frost depth are increasingly important for assessing spring drought conditions due to groundwater recharge. During the summer months precipitation was a mixed bag due to the hit or miss nature of convection, with precipitation deficits developing across southern Maine.

One week outlook: A dry pattern for the next week or two is not conducive for setting up a good baseline snow pack. Confidence in a long-term snowpack forecast is low due to heavy influence of individual events.

Climate Station	<i>Fall (Sep-Nov)</i>	
	<i>Precipitation and Departure (Inches)</i>	<i>Driest Ranking</i>
Caribou Period 1939-Today	4.84 -5.94	2nd
Houlton Period 1939-Today	5.95 -5.10	3rd
Millinocket Period 1944-Today	4.15 -8.11	2nd
Bangor Period 1925-Today	5.07 -7.11	1st
Augusta Period 1948-Today	5.34 -7.20	1st
Portland Period 1871-Today	6.61 -6.66	5th

Winter 2024 Outlook: Weak La Nina is favored for this winter. The overall influence of La Nina on New England winter is limited, however past seasons favored above normal temperatures and above normal precipitation. A weak La Nina does not give high confidence in seasonal snowfall forecast across

Maine. An analog seasonal pattern could be the winter of 2016-2017, which resulted in an average to severe winter with above normal snowfall and a persistent snowpack for the season. The last 5 winters have been mild to moderate for most of Maine due to longer term trends of baseline warming. However every winter is different and a few major storms can still occur in “Mild” winters.

Headwater Storage Levels

- **Presumpscot River** – Sebago Lake’s Water Quality Certification requires a target water level range of 262.0-266.65 feet, and the lake currently reads at 236.23 feet (NGVD 1929). Total outflow from Sebago Lake is 700 cfs.
- **Androscoggin River** – storage is 69.2% full, 5.6% above the long-term average. Rangeley Lake is down 1.11 feet with an outflow of 200 cfs; Mooselookmeguntic is down 4.34 feet with an outflow of 250 cfs; Richardson is down 5.18 feet with an outflow of 500 cfs; Azizcohos is down 10.21 feet with an outflow of 340 cfs; and Errol is down 1.65 feet with an outflow of 1400 cfs. River flows remain stable while discharging 1,900 cfs at Gorham, 2,750 cfs at Rumford, and 6,000 cfs at Auburn.
- **Kennebec River** – Storage is 60.3% full, 10.5% below the long-term average. Brassua Lake levels are down 7.45 feet, Moosehead Lake levels are down 3.24 feet, and Flagstaff Lake levels are down 5.42 feet. River flow at Solon is set at 2,700 cfs; Madison at 2,800 cfs, and Weston is at 3,000 cfs.
- **Penobscot River** – (Values from November update) The Penobscot River Storage is 46.9% full, 6.5% below the long-term average and is a D1-Moderate Drought rating. Natural inflows at Ripogenus and North Twin are trending below average for the year. Storage for the West Branch of the Penobscot is 26.34 BCF, slightly below average for this time of year.
- **Union River** – The Union River storage is 37% full, 33.4% below the long-term average and is a D1-Moderate Drought rating. Graham Lake is measuring 3.61 feet below the long term average.
- **St. Croix River** – (Values from November update) East Grand Lake is 44.85% full, outflow is 87.6 cfs; West Grand is 41.37% full, outflow is 106 cfs; Grand Falls is 36.8% full, outflow is 800 cfs; Vanceboro is 53.98% full and outflow is 262 cfs; and Woodland is 35.84% full and outflow is 757 cfs. Total storage for the St.Croix River Basin is 44.17% full. Fall drawdowns are being met.

Drought Impact Sectors

Public Water Suppliers

The Maine CDC Drinking Water Program (DWP) notes relatively few reported drought-related water quantity and quality issues given that most of the state is in Moderate Drought, including in highly populated areas. Public Water Systems (PWSs) have made capital improvements over time to improve drought resilience, so can more easily ride out drought conditions. The DWP was notified of the following two issues during the late summer and early fall of 2024:

- The DWP was notified of apparent drought-related water chemistry changes in Aroostook County.
- The DWP was notified that a PWS in York County temporarily hauled water to meet water quantity demand until a new well was brought online.

Private Well Owners

The Drinking Water Program’s Private Well Coordinator has been very busy fielding calls from private well owners whose wells have gone dry. He offers technical assistance and refers them to MEMA’s Dry Well Survey.

20 privately owned wells have reportedly run dry during this year. Of these, eight were reported since November 2024. Most reports submitted are for “sputtering tap water.”

Maine homeowners with dry wells are encouraged to report this information to the Dry Well Survey and review assistance programs: <https://maine-dry-well-survey-maine.hub.arcgis.com/>.

MEMA stood up 211 Maine to assist with capturing dry well information on November 14th. Mainers can dial 211 or 1-877-463-6207, or they can text a Maine zip code to 898-211 for assistance with filling out this survey.

For low income homeowners requiring assistance with dry private wells (including drilling a well deeper, drilling a new well, laying pipes to the home, associated labor costs, etc.) please refer to the [USDA Single Family Housing Repair Program](#) or the [Maine State Housing Authority Home Repair Program](#).

Agricultural and Environmental Conditions

There is nothing significant to report regarding conditions for December. DACF has sent rules proposed for the Farmers’ Drought Relief Program to the Secretary of State’s office. The Notice will be published on December 26, with a public hearing on January 17 at 1 pm in the Deering Building in Augusta. Public comments are requested by February 1, 2025. After the public comment period the legislature is expected to move quickly to finalize the rule and put out request for proposals for funding of agriculture water management, storage, wells, and related water use and conservation proposals. Currently there is \$1.3M dollars appropriated.

Potential applicants can stay informed on the development of the funding opportunity by signing up for the ARD's Agricultural Grants email list (<https://www.maine.gov/dacf/about/grants/>). Farmers seeking alternative funding options for irrigation and water access are encouraged to contact Tom Gordon, Soil & Water Conservation Program Coordinator, at (207) 592-3584 or tom.gordon@maine.gov to discuss potential funding.

Comments from Soil & Water Conservation Districts: (Comments from November)

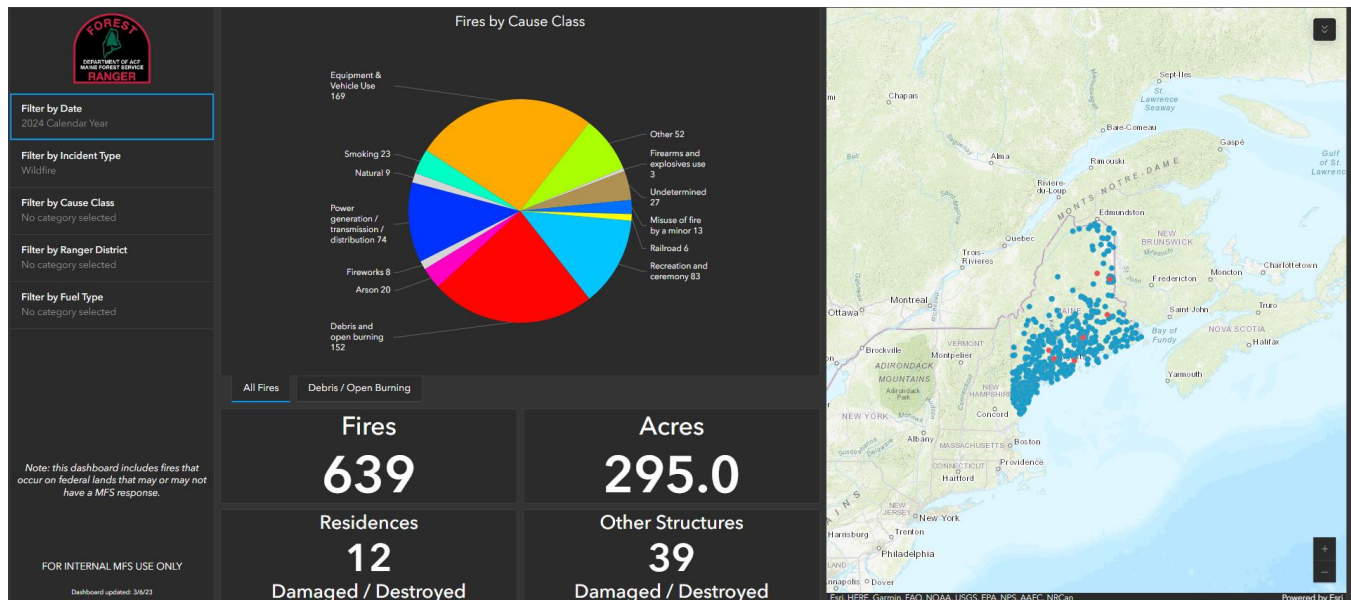
Central Aroostook: Since all crops are out of the ground, crop damage is not an issue. It is interesting to point out that all growers have their rocks picked and fall plowing done. It is unfortunate to see close to 50,000 acres of bare soil with no protection. Atlantic Salmon for Northern Maine has a salmon hatchery in Sheridan and the water that supplies the hatchery comes from Dug Brook. Dug Brook is running so low that 24" salmon are dying due to lack of oxygen in the water. Similarly, in the Ashland area, my technician's spring that feeds his house with water has gone dry and they are hauling water from a spring at Portage Lake. All rivers and streams in Central Aroostook are flowing at very low levels and the few sprinkles that we have been getting are not doing much to increase the flow. This situation could become dire if we don't receive substantial rain before it freezes up before winter. If that is the case, many wells will go dry.

Wildfire Conditions

Comparison to previous years:

- **2024: 639 fires have occurred as of December 19, 2024.** In the past 30 days there have been 28 wildfires burning 8.8 acres
- **2023:** 496 wildfires for the year.
- **2022:** 624 wildfires for the year.
- **2021:** 650 wildfires for the year.

- **2020:** 1,154 wildfires for the year. Record high wildfire occurrence. Maine experienced drought conditions during this year. More people were at home due to COVID utilizing wildland fire to work around the home.



Please visit the Maine Forest Service Wildfire Danger Report <https://mainefireweather.org/> Posted everyday during the fire season after 0900 hours. The Maine Forest Service works with the National Weather Service in posting Elevated Wildfire Danger and Red Flag Day Watch/Warnings

Please visit the Maine Forest Service Maine Burn Permit System for burning permit <https://apps1.web.maine.gov/burnpermit/public/index.html> or contact your Town Warden/Fire Chief for current burning conditions.

Please contact your local ranger for wildfire conditions. https://www.maine.gov/dacf/mfs/forest_protection/offices.html.

Hazard Mitigation Grants

There are currently six (soon to be five) open HMGP grant opportunities described here: <https://www.maine.gov/mema/grants/mitigation-grants>. FEMA supports a wide variety of drought hazard mitigation projects to build resilience. Some of the categories that may qualify for HMA assistance:

- Nature-based Solutions
- Early Warning Systems
- Stabilization
- Floodplain and Stream Restoration
- Flood Diversion and Storage
- Aquifer recharge, storage and recovery
- Hazard Mitigation Planning initiatives

Hazard Mitigation grant questions can be directed to the Acting State Hazard Mitigation Officer at HMAgrant@maine.gov.

Drought News

- Maine's drought conditions persist but much-needed rain is on the way: <https://wgme.com/news/local/maines-drought-conditions-persist-but-much-needed-rain-is-on-the-way-remains-abnormally-dry-raining-weather-7-21-2024>

- Town of Ellsworth among many communities in Maine to ban fires amid drought issues: <https://www.msn.com/en-us/weather/topstories/town-of-ellsworth-among-many-communities-in-maine-to-ban-fires-amid-drought-issues/ar-AA1uiW5c?ocid=BingNewsVerp>
- Fire destroys home in Harrison; crews face water challenges: <https://www.msn.com/en-us/news/us/fire-destroys-home-in-harrison-crews-face-water-challenges/ar-AA1uvYtf?ocid=BingNewsVerp>

About this Report

Current information represents a “snapshot” of conditions throughout the state for the date of reporting. This report provides information on the preliminary effects of the drought and more monitoring must be done to assess potential impacts if the situation worsens. These conditions will be monitored, and the Drought Task Force will monitor the situation until warning indicators subside.

The Maine Drought Task Force is composed of representatives from major river basin management operations, utility operators as well as state agencies and federal agencies. The Task Force is convened when necessary based on drought threat, and members will stay in close communication until the dry conditions subside.

Information Resources

Please refer to these sources for more information on current water conditions:

- Maine Drought Task Force website, with links to other reports and drought monitoring resources: <https://www.maine.gov/mema/hazards/drought-task-force>
- Drought.gov site for the State of Maine: <https://www.drought.gov/states/maine>
- Northeast DEWS: <http://nedews.nrcc.cornell.edu/>
- National Integrated Drought Information System: <https://www.drought.gov/current-conditions>
- U.S. Drought Monitor: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?ME>
- Well monitor data: <https://groundwaterwatch.usgs.gov/StateMap.asp?sa=ME&sc=23>
- Streamflow data: <https://waterwatch.usgs.gov/?m=real&r=me>
- Streamflow data aggregated by watershed: <https://waterwatch.usgs.gov/index.php?m=dryw&r=me>
- Maine Cooperative Snow Survey: https://www.maine.gov/dacf/mgs/hazards/snow_survey/
- NWS Gray short- and long-term forecasts: <https://forecast.weather.gov/product.php?site=NWS&issuedby=GYX&product=AFD&format=CI&version=1&glossary=1&highlight=off>
- NWS Caribou short- and long-term forecasts: <https://forecast.weather.gov/product.php?site=NWS&issuedby=CAR&product=AFD&format=CI&version=1&glossary=1&highlight=off>
- USDA farm assistance and loan programs: <https://www.farmers.gov/protection-recovery/drought>
- CoCoRaHS local volunteer weather condition monitoring: <https://www.cocorahs.org/maps/conditionmonitoring/index.html>

For additional information on specific aspects of this report, please contact:

Samuel Roy , Data Analytics and Visualization Chief, USGS New England Water Science Center	Task Force facilitator	Samuel.roy@maine.gov
Anne Fuchs , Director of Mitigation and Recovery Division, MEMA	State drought conditions, drought mitigation	Anne.p.fuchs@maine.gov
Nick Stasulis , Monitoring Operations Section Chief, USGS New England Water Science Center	Streamflow, groundwater levels	nstasuli@usgs.gov
Sarah Jamison/Donald Dumont , National Weather Service, Gray, Maine	Weather forecasting for southern and western Maine	gyx.hydro@noaa.gov
Louise Fode/Corey Bogel , Warning Coordination Meteorologist, National Weather Service, Caribou, Maine	Weather forecasting for northern and eastern Maine	Louise.fode@noaa.gov corey.bogel@noaa.gov
Laura Paye Maine Dept. of Environmental Protection, Bureau of Land Resources	Dams/hydropower facilities and river basin management	Laura.paye@maine.gov
Susan Breau/Joshua Laufer , Maine Drinking Water Program	Public Water Utilities	Susan.breau@maine.gov
Tom Gordon , Public Service Coordinator, Maine Dept. of Agriculture, Conservation & Forestry	Agricultural conditions	Tom.Gordon@maine.gov
Sherry Hamel , USDA Farm Service Agency, Maine State Office	USDA Secretarial Disaster Designation updates	sherry.hamel@usda.gov
George Harris , Regional Forest Ranger, Maine Forest Service	Wildfire conditions	George.harris@maine.gov
Nathan Robbins , Maine Dept. of Environmental Protection	Environmental conditions	Nathan.p.robbins@maine.gov
Ryan Gordon , Hydrologist, Maine Geological Survey	Hydrologic conditions, Maine Cooperative Snow Survey	Ryan.gordon@maine.gov
Sylvia Reeves , National Integrated Drought Information System (NIDIS)	Regional/National drought conditions	reeves@noaa.gov