

**State of Maine
Drought Task Force
Report on Current Hydrologic Conditions
September 23, 2021**

Overview:

- Drought has been gradually declining in Maine: 22.5% of the state is Abnormally Dry (7 counties), 26.93% in Moderate Drought (5 counties), 4.85% in severe drought (3 counties). Though 54.28% of the state is experiencing abnormally dry or drought conditions by area, approximately only 9.3% of Maine's population resides in the impacted area.
- With cooling temperatures, an ending growing season and potential for typical fall rains, it's a promising time to further improve drought conditions. However, flows in the Androscoggin River continue to be in the lowest 10% of all data collected at those stations.
- September has brought above normal rainfall, however year to date deficits continue for most of the state. Widespread soaking rain Friday into Sunday followed by scattered shower activity into next week.
- Headwater Storage Levels In the western Maine mountains water levels and flows are lower than the long-term average for each of the river basins.

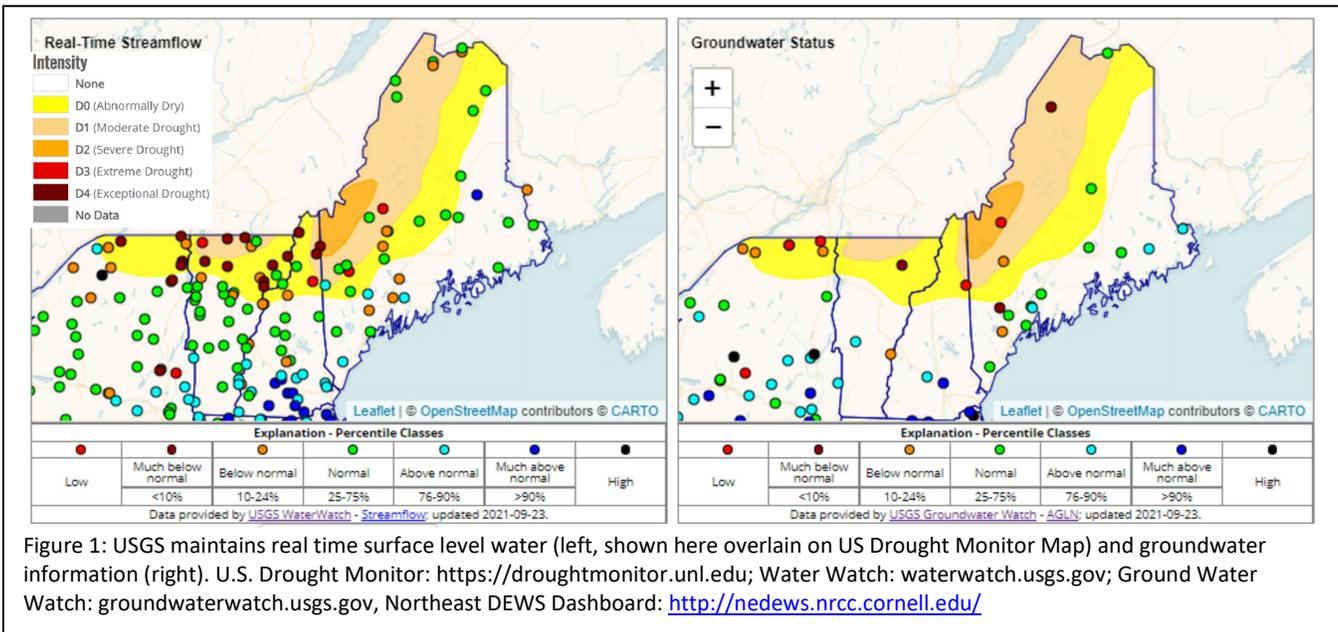


Figure 1: USGS maintains real time surface level water (left, shown here overlain on US Drought Monitor Map) and groundwater information (right). U.S. Drought Monitor: <https://droughtmonitor.unl.edu>; Water Watch: waterwatch.usgs.gov; Ground Water Watch: groundwaterwatch.usgs.gov, Northeast DEWS Dashboard: <http://nedews.nrc.cornell.edu/>

In response to persistent drought, the Maine Emergency Management Agency publishes these biweekly Drought Reports. Previous reports are available here: <https://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. **Drought can occur over many different scales and timelines. The Maine Drought Task Force reports primarily on long term dry weather and drought conditions as indicated by the U.S. drought monitor, with the recognition that many drought-related impacts to specific sectors may be more sensitive to shorter-term fluctuations in dry and wet weather. No single measure can adequately address all manifestations and sensitivities to drought, so please refer to our sector-specific monitoring information below.**

Current Hydrologic Conditions:

Stream Flows

Monitoring stations on the Androscoggin River, and its tributaries, consistently indicate flows in the lowest 10% of all data collected at those stations. This basin did not show the slight improvement seen in the Kennebec and Penobscot basins since the Maine Drought Task Force last met. The percentage of long term stations in the below normal categories has increased slightly over the last two weeks, but still represents only 20% of those stations. Earlier in the summer, nearly all of these long term stations were in a below normal category.

Ground Water

The lowest groundwater levels in the state remain along the New Hampshire border up to the border with Canada in western/northwestern Maine. This includes Sanford, Oxford Hills, Eustis and Clayton Lake. While most of these monitoring wells have not shown recharge this summer, there is some improvement indicated in the Sanford monitoring well. Other wells in Maine remain in the normal to above normal range.

Weather Outlook:

At the onset of the forecast period an area of low pressure will be traversing east out of New York with a slow moving cold front that will move into Maine on Friday. Moisture ahead of this feature will be high which will support notable widespread rainfall with most areas expected to receive over 0.75", with higher amounts likely in the drought stricken mountain regions. The front will slow to a crawl and may still be over eastern Maine on Sunday, continuing rain throughout the weekend. The current 7 day rainfall forecast shows 0.75" to 2.5" for the state (Figure 2), with heavier rainfall expected in the mountains and lakes regions. Flooding is not expected, but a much welcome soaking rain likely for the region.

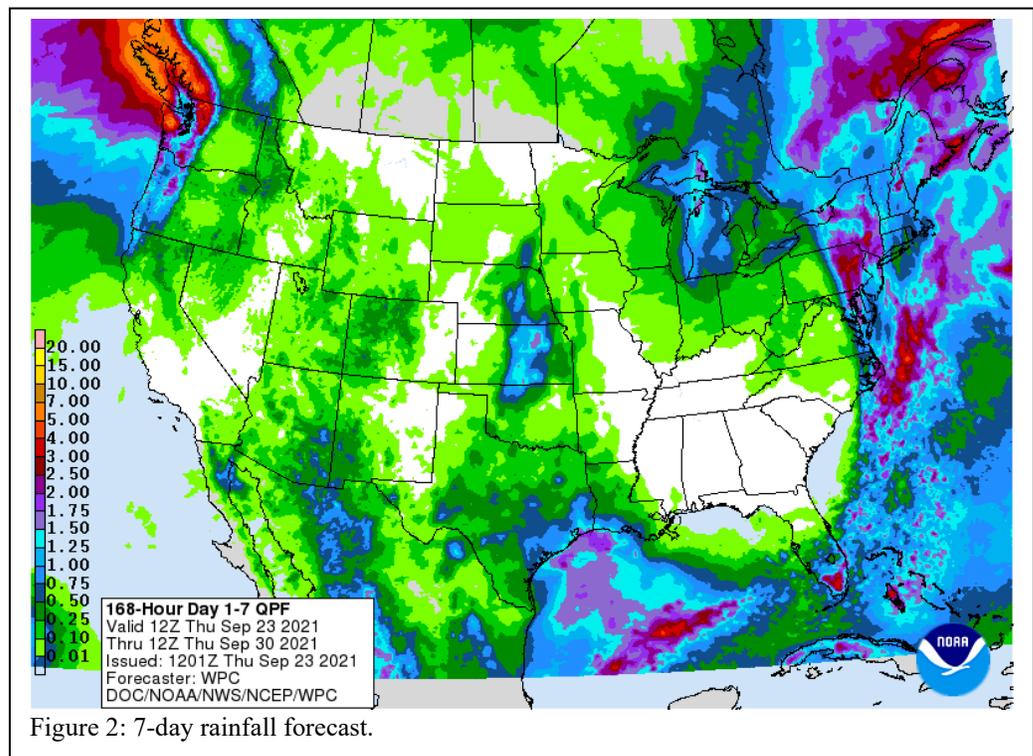


Figure 2: 7-day rainfall forecast.

Table 1: Precipitation departures thru 9/20		
Location	Departure for September	Departure, year-to-date
Caribou	-1.15"	-2.47
Bangor	-1.28"	-2.14
Millinocket	-1.03"	-4.46
Portland	-1.38"	-2.92
Rangeley	M	M

The 6-10 day outlook slightly favors above normal rainfall for the state through the end of September (Figure 3). The temperature outlook shows moderate confidence for above normal temperatures across most of the state, primarily due to above normal low temperatures. The trend favors above normal rainfall. The current tropical outlook does not indicate any storms affecting the eastern U.S. for the next two weeks. However, the influence of tropical activity is a low confidence forecast and adds more uncertainty to the outlook forecast in general. Attention

should continue to be paid to the tropical Atlantic where storms are currently developing and conditions favor above normal activity through the season.

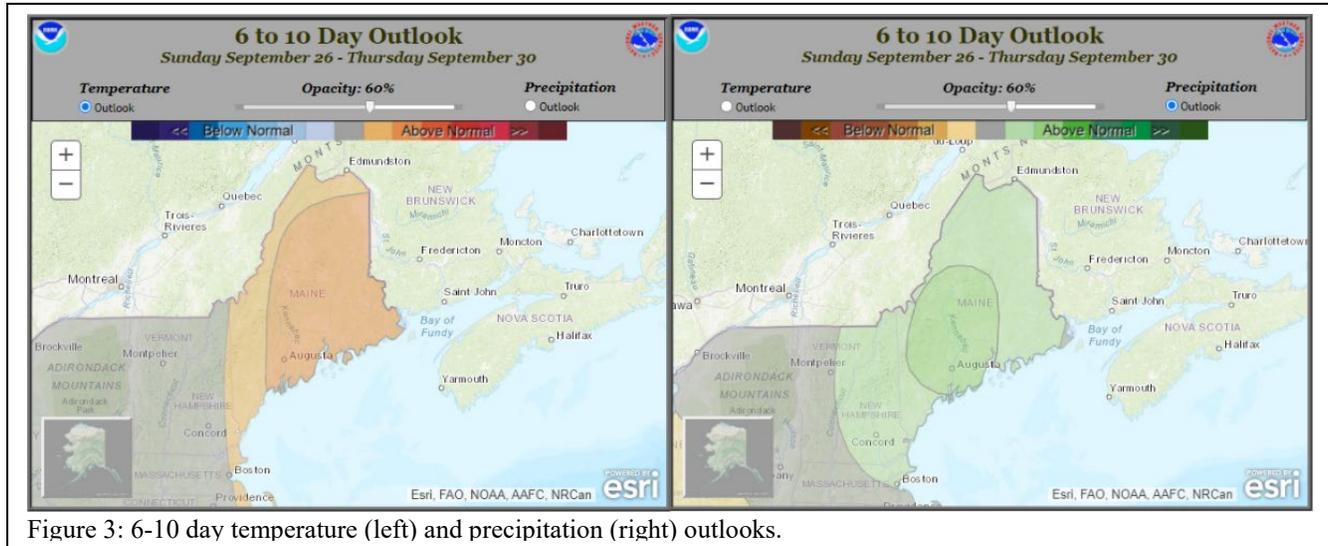


Figure 3: 6-10 day temperature (left) and precipitation (right) outlooks.

Headwater Storage Levels

Storage conditions in the major river basins as reported by the hydropower companies this week are as follows:

- **Presumpscot River** – The water level at Sebago Lake is currently 263.94 feet, a decrease of 1” for the week. Flow from Sebago Lake remains at 270 cfs as Sappi continues to closely monitor conditions and consult with the resource agencies regarding increasing flow to maintain good dissolved oxygen concentrations downstream of the dam.
- **Androscoggin River** – Storage conditions in the upper Androscoggin River basin are reported to be 55.3% full this week, which is 12.2% below the long-term average for this time of the year. Both water levels and flows are currently stable. River managers are planning a demonstration flow with Maine’s Department of Inland Fisheries and Wildlife that is expected to have a short-term impact on water levels and flows in the Richardson Lake drainage.
- **Kennebec River** – Storage conditions in the upper Kennebec River basin are reported to be 67.7% full, just 1.7% below the long-term average for this time of the year. Flow has been increased at Brassua and Moosehead lakes.
- **Penobscot River** – Total storage in the west branch of the Penobscot River remains slightly below the long-term average for this time of the year and natural inflows remain below average and below the lowest inflows recorded. Storage conditions at Ripogenus remain well below the long-term average and continue to drop as water stored there is flowed downstream to North Twin, where water levels remain stable. Water levels in the four small storage reservoirs continue to decline.
- **Union River** – Storage conditions continue to improve in the Union River basin (at Graham Lake) and are 3.36 feet higher than the long term average for this time of the year as a result of changed operating conditions.
- **St. Croix River** – The west branch of the St. Croix River is reported to be 70.1% full at West Grand Lake, and the Vanceboro impoundment (representing flow from the east branch) is reportedly 75.0% full. The Grand Falls Flowage is 83.8% full and is flowing 1,606 cfs. The river flow at Baring is 1,620 cfs. River managers are working to flow water out of the impoundments

to achieve minimum lake elevations at East Grand Lake and West Grand Lake in order to protect Lake Trout spawning habitat and egg incubation.

Drought Impact Sectors

Public Water Systems

The Maine CDC Drinking Water Program (DWP) has not received any new reports of water quantity issues from public water systems (PWS) since mid-August. Some PWSs have standing voluntary water conservation orders. The South Berwick Water District and the Stonington Water Company have issued emergency mandatory water use restrictions that are in effect into the fall.

Dry Wells

Nineteen dry private wells have been reported in ten counties (Figure 4). At this time most reports are for dug wells, and 89% of all reported wells are for residential use. Maine homeowners with dry wells are encouraged to report this information to the Dry Well Survey: bit.ly/3iU6hvu.

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](#).

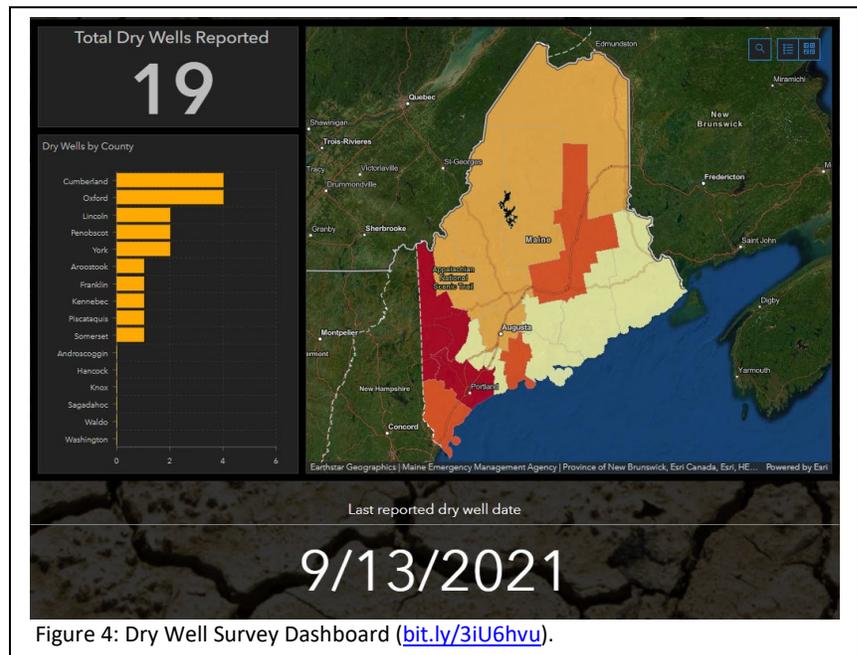


Figure 4: Dry Well Survey Dashboard (bit.ly/3iU6hvu).

Wildfire conditions

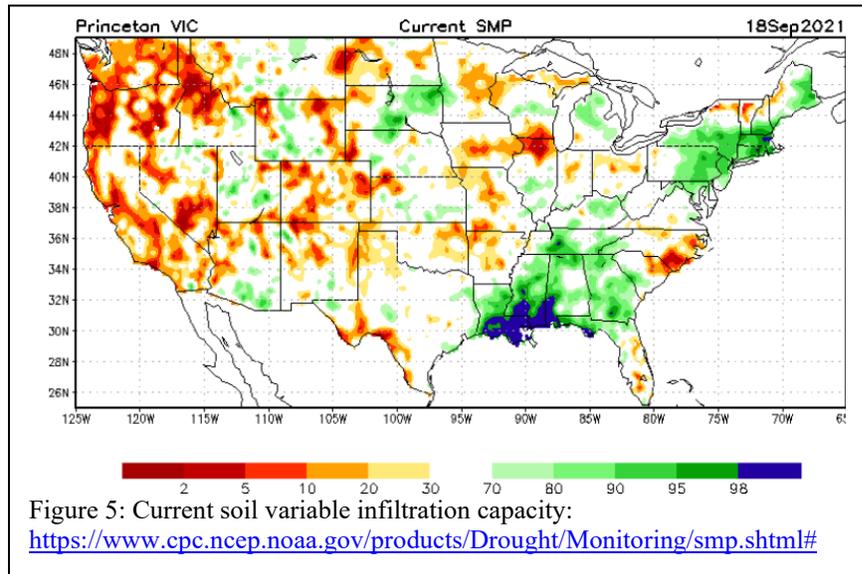
Since January 1st, we have had 622 wildfires in Maine covering 372 acres. In the last 30 days, 25 wildfires have burned 5.8 acres. In the last 7 days, 5 fires have burned 0.6 acres. The largest fire cause in the last 30 days has been equipment, accounting for 32% of our fires. As we move into fall, it is important to understand that fires, and sometimes large damaging fires, are still a threat. Fall brings leaf litter, reopened canopies for solar heating, drier fuels through lower relative humidity, as well as higher winds. When viewing our [Daily Wildfire Danger Report](#), remember that it is a one day forecast which is calculated using minimal data from the previous weather. As always, we should expect a rise in fire activity when we progress through another prolonged drying trend and the fuels become more available for ignition.

Agricultural and Forest Conditions

Agricultural conditions are reasonably good as we approach the end of the growing season. Potato harvest looks good for quality and quantity, with no major water use conflicts noted. Other crops are looking good, with the diminishing drought reducing the irrigation workload on producers

The USDA Farm Service Agency has received a Secretarial Disaster Designation dated 8/13/2021 due to the drought situation. This designation opens up the Livestock Forage Disaster Program (LFP) and Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program (ELAP) for the designated counties of Oxford, Franklin, Somerset, and Piscataquis. Additionally, Aroostook, Penobscot, Androscoggin, Cumberland, York, Kennebec, and Waldo Counties are included under the disaster designation as “contiguous counties.” Secretarial Disaster Designations immediately trigger

the availability of low-interest FSA Emergency (EM) loans to eligible producers in all primary and contiguous counties. Applications for an EM loan will be accepted for 8 months from the date of the disaster designation. In addition the Emergency Loan Program and Disaster Set-Aside Loan Program are now available for the designated counties as well as the contiguous counties. Refer to www.farmers.gov/protection-recovery/drought for more information.



Governor Janet Mills is encouraging small businesses in several Maine counties to apply for [newly available Economic Injury Disaster Loans \(EIDL\)](#) through the U.S. Small Business Administration (SBA). Farm-related entities in Androscoggin, Aroostook, Franklin, Kennebec, Oxford, Penobscot, Piscataquis, Somerset and Waldo counties that have suffered financial losses as a result of the drought that began in Maine on June 22nd are eligible for low-interest loans from the SBA.

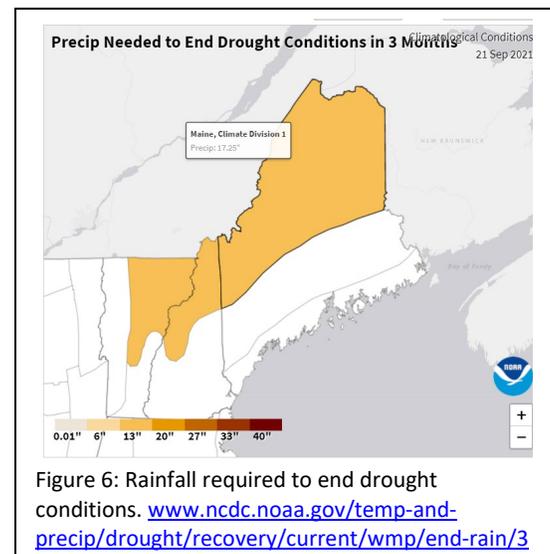
Drought Outlook

A substantial amount of precipitation is needed to end current dry conditions (Figure 6). In northern and western Maine, 17.25 inches of rainfall, or 149.37% of normal summer/fall precipitation, is required within the next three months to return to normal conditions. *These drought conditions are now expected to improve in fall based on NOAA NCEP Climate Prediction Center models (go.usa.gov/3eZ73).* **The Task Force will continue to monitor abnormally dry conditions in the state until conditions broadly improve across Maine.**

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. Many new factors will influence drought potential in Maine as the season progresses. These factors 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.nrcr.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>

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