State of Maine Drought Task Force Report on Current Hydrologic Conditions October 6, 2022

This report serves to inform Drought Task Force members and the public of current drought conditions, reservoir levels, precipitation, temperature forecasts, and resources used to monitor these conditions.

Overview

- The <u>U.S. Drought Monitor</u> reports that 7.9% of the state is Abnormally Dry (11 of 16 counties) and 3.2% is in Moderate Drought (6 of 16 counties) by area. Conditions have shown gradual improvement over the past month.
- An estimated 10% of Maine's population resides in Moderate Drought regions, while 24% reside in Abnormally Dry regions.
- The majority of streamflows in Maine are in the normal range for this time of year but levels have been variable throughout September.
- Groundwater monitoring wells in areas experiencing the worst drought conditions vary from normal to below normal in western Maine.
- There are weak signals for drier than normal conditions headed into the second half of October.
- 95 privately owned wells have run dry during this year, primarily in southern and central Maine
- A USDA Disaster Designation has been applied to multiple counties.
- Drought-related mitigation projects may be eligible for FEMA mitigation funding programs.
 Contact Maine's State Hazard Mitigation Officer for more details.
- This report documents findings for the final Drought Task Force meeting of 2022.

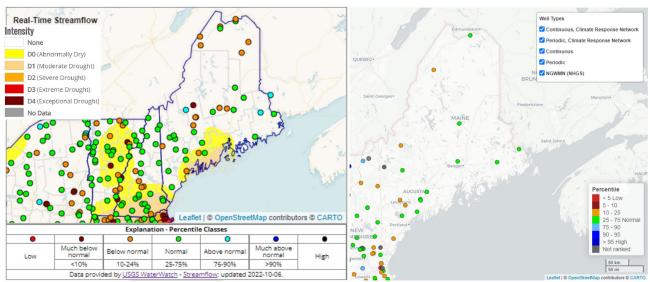


Figure 1: USGS maintains real time surface level water (left, shown here overlain on US Drought Monitor Map) and groundwater information (right). U.S. Drought Monitor: https://droughtmonitor.unl.edu; Water Watch: waterwatch.usgs.gov; Ground Water Watch: groundwaterwatch.usgs.gov, Northeast DEWS Dashboard: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

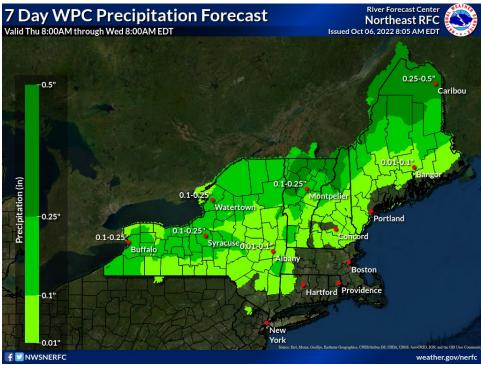
Following our last report, August ended with normal streamflow conditions through most of Maine. These conditions worsened through mid-September, resulting in about two-thirds of Maine's long term streamflow stations reporting below normal flows. This below normal condition was brief, however, as late September rains flipped the trend to above normal streamflows for two-thirds of the state. Currently, streamflows have settled into a mostly normal condition statewide. Northern Maine remains an area to watch as some recent storms didn't impact that part of the state.

Ground Water

August and September storms resulted in recharge in some of the groundwater monitoring wells hardest hit by drought and low snowpack over the last 2 years. While the recharge wasn't necessarily significant, it's a sign that intermittent storms are actually reaching the aquifers, instead of simply running off into streams, evaporating or quenching dry soil. Recharge in monitoring wells in Oxford and North Windham, where conditions have been below normal for the last 12 months, is promising.

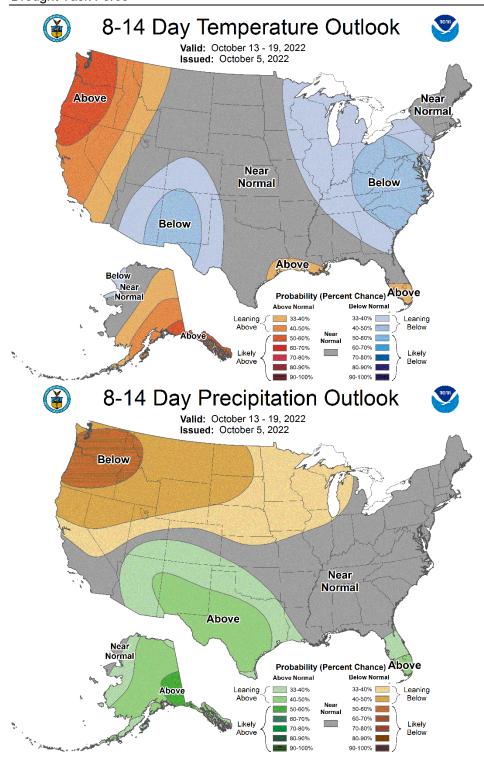
Weather Review and Outlook

One week outlook: A strong cold front brings rain showers to the region Friday and Friday night with much cooler temperatures over the weekend behind the front. The greatest chance for scattered showers from this front will be across the north and mountains where rainfall amounts could reach up to a half an inch. Most of southern Maine will see limited rainfall over the next 7 days. Much cooler temperatures and gusty winds will then filter in behind this front for the upcoming weekend. Near seasonable temperatures and mainly dry conditions are then likely early next week as high pressure builds to our south and west.



<u>Two+ week outlook</u>: High pressure will dominate the weather conditions next week with the chance for more rain by next weekend. There are indications that a second strong cold front could impact the region late next week, supporting widespread soaking rain chances and below normal temperatures. There are currently weak signals for drier than normal conditions headed into the second half of the month.

| | 2022 Precipitation (inches) ending Oct 5, 2022 | | | |
|------------------|--|-----------|-------------|-----------|
| | Last 30 Days | | Since Jan 1 | |
| Station | Observed | Departure | Observed | Departure |
| Bangor Area | 3.83 | -0.06 | 30.14 | -0.13 |
| Caribou Area | 1.84 | -1.62 | 31.25 | 0.89 |
| Houlton Airport | 4.05 | 0.58 | 31.32 | 2.46 |
| Millinocket Area | 3.82 | 0.08 | 32.35 | 1.15 |
| Portland Area | 3.90 | -0.06 | 29.77 | -5.11 |
| Rangeley | 5.01 | 1.52 | 33.39 | 1.71 |



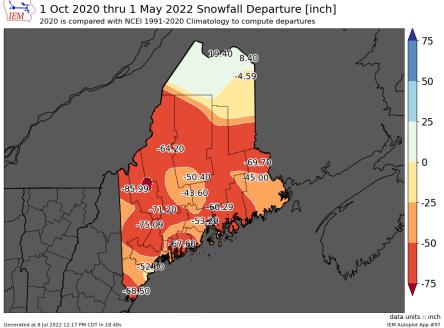
Winter 2022-2023 Outlook:

La Niña is favored to continue through Northern Hemisphere winter 2022-23. This will be the third winter influenced by La Niña, which plays a limited role in New England winters. The Climate Prediction Center seasonal outlooks show no strong signals for near, below, or above normal precipitation, but do favor above normal temperatures. The potential for reemerging drought next year will heavily depend on whether more precipitation falls as rain or snow over the coming winter. More rain would require water managers to release during the winter season, while snow would stay in the mountains as natural storage with a slower release.

Year To Date Review:

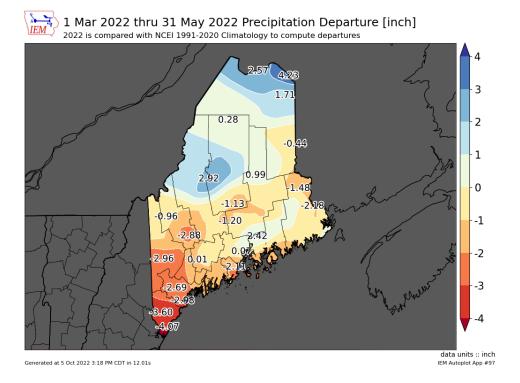
Winter Overview:

The winter's snowfall deficit across all but northern Maine played a role in the re-emergence of drought in 2022. For most sections in Maine, winter failed to deliver the expected amount of snowfall with snowpacks well below normal by spring. Most areas received near normal precipitation in the course of the winter season, though in central and southern Maine it frequently fell as rain due to warm temperatures. Overall, seasonal snowpack was 1 to 3 feet below normal in southern and central Maine. The exception to this was in Aroostook County where snowfall was more than a foot above average. If one combines the snowfall deficits from the winter 20-21 and 21-22, the departures are 4 to 7 feet below normal for many portions of the state.

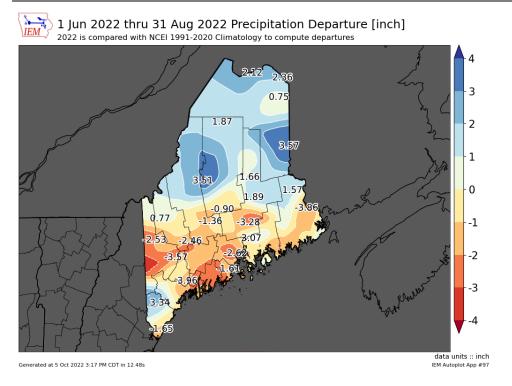


(SNOWFALL DEPARTURE GRAPHIC IS ACCUMULATED DEFICITS FOR THE PAST 2 WINTERS)

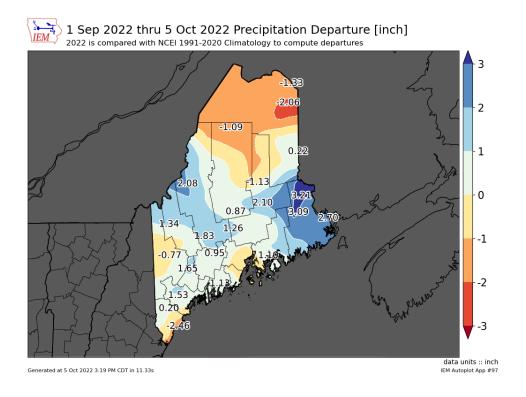
<u>Spring Overview</u>: The spring thaw arrived approximately 2 to 4 weeks early for all but northern Maine, resulting in an earlier than normal discharge along area waterways. The rest of spring lacked the typical rain frequency resulting in below average precipitation for most areas in April and May.



<u>Summer Overview</u>: Rainfall deficits began in the spring across central and southern Maine, however the drying of surface water accelerated in mid June when temperatures began to warm and water demands increased. Most areas of Maine received one to two inches below normal rainfall in June, apart from the Aroostook County. In July, above normal rainfall extended across northern Maine including parts of western Maine Lakes Region. From the foothills southward precipitation was near normal with totals generally 75% and 125% of normal. Below normal rainfall, from 50% to 75% of normal, were common across southern Maine though spotty storm activity led to wide distributions in these areas. Temperatures meanwhile soared, with southern Maine 4-5°F above normal. Evaporation measured between 5 and 6 inches for the month, exceeded precipitation amounts for most of the state resulting in a net loss in surface water. By August conditions started to turn with more rain activity. Temperatures were well above normal, and all but the Midcoast of Maine receiving above normal rainfall.



<u>Fall Overview:</u> September rains exceeded normals across the southern half of the state, while remaining below normal in northern Maine. The most beneficial rainfall was from multiple slow moving frontal boundaries. Temperatures were near to above normal the first half of September, but fell below normal with many dry sunny days and cool crisp nights for the second half.



Headwater Storage Levels

 Presumpscot River – The water level at Sebago Lake on 10/2/2022 was 263.51 feet, 0.05 feet below the 19-year lake level average. The area received 0.09" of precipitation last week. Flow from Sebago Lake was increased to 408 cfs total to ensure DO targets are met in the Presumpscot River.

- Androscoggin River The Androscoggin River basin is 82.6% full which is 18.2% above the long-term average. Rangeley Lake is down 0.39 feet from full pond with an outflow of 100 cfs, Mooselookmeguntic is down 1.68 feet with an outflow of 750 cfs, Richardson Lake is down 3.88 feet with an outflow of 750 cfs, Aziscohos is down 6.65 feet with an outflow of 340 cfs, and Errol is down 0.8 feet with an outflow of 1,800 cfs. River flows are stable at Gorham, Rumford, and Auburn, discharging 1,850 cfs, 2,300 cfs, and 2,200 cfs, respectively.
- **Kennebec River** The Kennebec River basin is 75.2% full, 16.1% above the long-term average for this time of the year. Brassua is down a total of 10.3 feet from full pond with an outflow of 1,448 cfs, while storage impoundments at Moosehead Lake are down 1.24 feet with an outflow of 2,491 cfs. Flagstaff Lake is down 3.66 feet with an outflow of 1,070 cfs. River flows are discharging 4,500 cfs at Solon, 4,950 cfs at Madison and 4,977 cfs at Weston.
- Penobscot River The Penobscot River basin is 63.7% full, 1.1% below the long-term average for this time of year. Storage for the West Branch of the Penobscot is 35.78 BCF, slightly below the long-term average. Water levels are currently lower than the long-term average in both the Ripogenus and North Twin impoundments. Flow in the North Branch of the Penobscot River were low throughout September, and as a result the Seboomook impoundment has dropped 10-feet below full pond, and flows will remain at 650 cfs through early October.
- **Union River** The Union River basin is 44.4% full, which is 2.7% above the long-term average and in normal drought status. Graham Lake is currently up 0.29 feet from the long-term average elevation.
- St. Croix River East Grand Lake is 57.6% full, 5.9% above the long-term average for this time of year, and outflow is 453 cfs. West Grand is 59.9% full, 8.1% above the long-term average for this time of year, and outflow is 614 cfs. Vanceboro (Spednic) is 74.4% full, 13.2% above the long-term average for this time of year, and outflow is 874 cfs. Grand Falls is 85.6% full, while downstream flow is 2,242 cfs. Woodland is 69.3% full, 11.3% above the long term average for this time of year, while outflow is 2,230 cfs.
- **Aroostook River** The Scopan Lake water level was 601.85 feet on 10/5/2022, about 1 foot below the water level at the same time last year.

Drought Impact Sectors

Public Water Suppliers

The Maine CDC Drinking Water Program (DWP) has not received any new reports of water quantity issues from public water systems since mid-August. The Stonington Water Company issued emergency mandatory water use restrictions on July 21, 2022, that are still in effect as of October 4, 2022.

Private Well Owners

The Maine Dry Well Survey has documented 95 privately owned wells that have reportedly run dry during this year; the majority of which were reported in Cumberland, York, Kennebec, Lincoln, and Knox Counties. Of these wells, 97% are residential. Of the survey responses where well type is known, 40% are dug wells and 60% are drilled. 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/. 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

Harvest activities are continuing. Recent rainfall has helped soil moisture but has limited access to fields in a few cases. Northern Maine was not affected by drought this year, and the potato harvest appears to be excellent.

Looking towards 2023, the Department of Agriculture, Conservation & Forestry encourages all farmers to think about their water use and needs for future water source development. The Department is currently in discussions with the University of Maine to research and develop a framework for the Maine Farmers' Drought Relief Program. The project would review past projects funded by Agricultural Water Bonds, assess current water resource development needs and costs, and develop recommendations for the Farmers' Drought Relief Program. This program is not currently funded, but the Department will continue to explore potential sources for financial support.

The Department encourages farmers to conserve water wherever possible. Farmers should contact their local USDA Farm Service Center to review possible federal sources of technical and financial assistance.

The UMaine Cooperative Extension notes an important need for improved surface/root zone level soil moisture deficit/excess monitoring in the state. There are challenges in relating the longer-term and slowly evolving USDM ratings with the more volatile soil moisture conditions relevant for annual (e.g. vegetable and forage crops) and perennial crop plants (e.g. orchards). The challenge will be to report soil moisture in the crop plant root zone on par with stream flow, groundwater etc. in Drought Task Force discussions. Sources such as Precip minus ET from ClimateEngine.com and ClimateToolbox.org are somewhat useful but also have constraints.

Agriculture assistance programs

The Maine Farm and Ranch Stress Assistance Network, through the Maine Department of Agriculture, Conservation, and Forestry in partnership with multiple organizations in Maine, and managed by the University of Maine Cooperative Extension, seeks applicants for Small Grants to Support Maine Agricultural Well-Being. The grants support Maine farmers in their mental health and wellness needs. Applications are open now until November 15th.

In August of 2022, Governor Mills signed legislation establishing the **Maine Farmer Drought Relief Grant Program** to support Maine farmers in identifying and accessing new water sources to overcome the adverse effects of drought conditions. **The program is currently not funded.** DACF will develop the rules governing this grant in 2023 to be prepared to launch the program when funding is made available.

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 Alex Redfield, Farm Viability and Farmland Protection Specialist, at (207) 592-0640 or alexander.redfield@maine.gov to discuss other potential funding sources. Farmers should contact their local USDA Farm Service Center to review possible federal sources of technical and financial assistance.

York, Androscoggin, Cumberland, Sagadahoc, Lincoln, Knox, and Waldo Counties are now eligible for Economic Injury Disaster Loans (EIDL) through a Secretarial Disaster Designation. Adjacent Maine counties may also become eligible for this program. These counties are made eligible by exhibiting D2 (Severe Drought) conditions exceeding 8 weeks. A Secretarial Disaster

<u>Designation</u> is triggered for severe drought, through a fast-track process when a county meets the D2 (Severe Drought) drought level for eight consecutive weeks or a higher drought intensity value (D3 or greater) for any length of time. In Maine, if D3 conditions are not met, farms in impacted areas are at least 8 weeks out from a designation.

Secretarial Disaster Designations immediately trigger the availability of low-interest FSA <u>Emergency</u> (<u>EM</u>) <u>loans</u> to eligible producers in all primary and contiguous counties impacted by drought. EM loan funds may be used to:

- Restore or replace essential property;
- Pay all or part of production costs associated with the disaster year;
- · Pay essential family living expenses;
- Reorganize the farming operation; and
- Refinance certain debts.

Livestock producers in Androscoggin, York, Cumberland, Sagadahoc, Lincoln, Knox, and Waldo Counties are now currently eligible for the following Farm Service Agency (FSA) programs:

- <u>Livestock Forage Program (LFP)</u> provides payments to livestock producers for grazing losses. Producers report their grazing acres to their local county office. Payments are based on the number of cattle, acres grazed and the severity of the drought. D2 triggers one month of payments, D3 triggers three months. Payment rates are established by the FSA National Office in Washington, DC.
- Emergency Livestock Assistance Program (ELAP) provides financial assistance to
 livestock producers for losses resulting from the additional cost of transporting water and/or
 additional feed to livestock due to an eligible drought. Producers will need to provide supporting
 documentation showing the gallons of water hauled and can self-certify the number of
 truckloads of livestock feed hauled and the mileage per truckload hauled

Cumberland County is currently accepting applications for the following FSA program:

- Emergency Conservation Program (ECP) provides cost share, up to 75% of the producers
 actual costs, to provide emergency water during periods of severe drought (specifically for
 grazing and confined livestock and for existing orchards and vineyards). Approved practices
 and measures may include:
 - installing pipelines or other facilities for livestock water or existing irrigation systems for orchards and vineyards
 - constructing and deepening wells for livestock water
 - developing springs or seeps for livestock water.
 - ECP can also be requested if the rainfall in the county is reduced by an average of 40% for 4 months. We are currently looking into this for some of the southern counties.

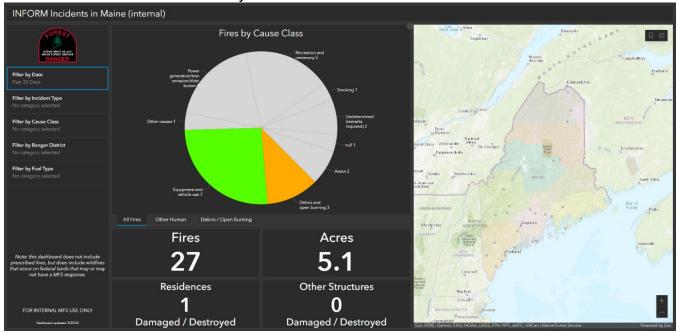
Wildfire Conditions

Comparison to previous years:

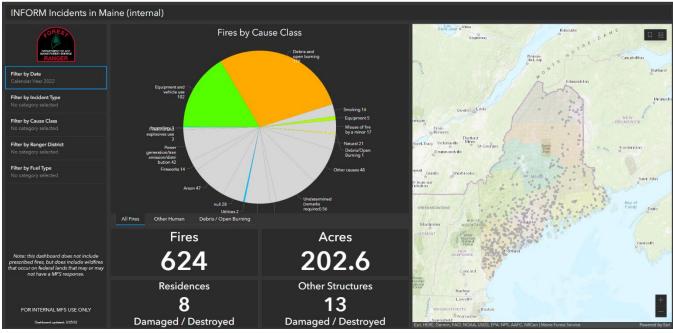
- 2022: 624 fires have occurred as of October 6, 2022.
- **2021:** 650 wildfires for the year. Maine started receiving rain in July to the end of the year to keep wildfires in check and occurrence low.
- 2020: 1,154 wildfires for the year. Record high wildfire occurrence. Maine experienced drought
 conditions during this year. More people were at home due to COVID utilizing wildland fire to
 work around the home.

Current wildfire numbers are close to average for this time of year. 27 fires have occurred since last month. Intermittent rains, particularly in western Maine, have affected recent wildfire occurrence. Weather has been cooperative with the rainfall since the drought. We are still on alert for wildland fire activity until snowfall. Other fire concerns in fall include potential spreading form backyard brush fires. Some of our biggest historic fires have occurred in fall.

Wildfire numbers from the last 30 days:



Year-to-date wildfire numbers for 2022:



Refer to the Maine Forest Service Fire Weather map for daily updates on regional fire danger classes.

Mitigation Grants

Hazard mitigation is any sustainable action that reduces or eliminates long-term risk to people and property from future disasters. Mitigation planning breaks the cycle of disaster damage, reconstruction, and repeated damage. Local governments, including cities, townships, counties, special district governments, state agencies, and tribal governments, may be eligible to apply for FEMA Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) grants for drought-related mitigation actions. Please contact Heather Dumais (heather.dumais@maine.gov), State Hazard Mitigation Officer, or visit MEMA's Mitigation Grants webpage for more information on these programs and sub-applicant eligibility.

FEMA provides a Job Aid on the topic of developing mitigation grant applications for aquifer storage and recovery projects: www.fema.gov/sites/default/files/documents/fema_aquifer_storage_recovery_jobaid.pdf

Drought News: Local/National

Articles predating October 6, 2022 meeting

- Shrinking lake angers residents
- Wild blueberry harvest in Maine suffered in this year's drought
- Above-average September rainfall ends drought for much of Maine
- Hydrologist: Maine to see more rainfall but also droughts amid climate change
- With third dry summer in a row, more Maine farmers are exploring irrigation
- Webber Pond tests positive for blue-green algae toxins
- Northeastern U.S. hit by rare drought killing crops, sparking fires
- This map can tell you when fall foliage is peaking in 2022
- · Recent rains have diminished Maine drought
- Above-average September rainfall ends drought for much of Maine: https://www.mainepublic.org/environment-and-outdoors/2022-09-29/above-average-september-rainfall-ends-drought-for-much-of-maine
- Northeastern US hit by rare drought killing crops, sparking fires: https://www.pressherald.com/2022/09/12/n-y-to-maine-hit-by-rare-drought-killing-crops-sparking-fires/
- Poland Spring withdraws its request to extract more water from York County town: https://www.mainepublic.org/environment-and-outdoors/2022-09-12/poland-spring-withdraws-its-request-to-extract-more-water-from-york-county-town

Articles predating September 8, 2022 meeting

- Recent rains have diminished Maine drought
- Recent rainfall likely eases drought in southern Maine
- Dinosaur tracks from 113 million years ago uncovered due to severe drought conditions
- Maine farmers to receive \$20M for infrastructure improvements
- This crucial Maine crop has avoided the worst of Maine's drought
- Amid drought, Poland Spring wants to extract more water in Hollis
- Aroostook's potato crop has escaped drought conditions
- Mainers are taking extreme measures as drought saps well water
- Mainers continue to see drought amid dry wells
- Maine's drought is devastating wild blueberry crops on the Blue Hill Peninsula
- The drought is forcing Maine anglers to change where and when they fish
- Drought disaster declared in Rhode Island; Massachusetts city restricts water use: https://www.pressherald.com/2022/08/23/drought-disaster-declared-in-rhode-island-massachusetts-city-restricts-water-use/
- Maine's drought is causing apples to ripen early: https://www.bangordailynews.com/2022/08/19/business/maine-drought-apples/
- American farmers are killing their own crops and selling cows because of extreme drought: https://www.wmtw.com/article/american-farmers-are-killing-their-own-crops-and-selling-cows-because-of-extreme-drought/40920919?utm_campaign=snd-autopilot
- With low water exposing junk and rocks, VT city finds opportunities: https://www.necn.com/news/local/with-low-water-exposing-junk-and-rocks-vt-city-finds-opportunities/2807270/
- Rare August Nor'easter to bring drought help to Maine:
 https://www.newscentermaine.com/article/weather/local-weather/rare-august-noreaster-brings-drought-help-to-maine-portland-bangor-aroostook-county-storm-rain/97-1c121245-0aa7-479f-a35f-1cd1b84b4d68
- Maine livestock producers could face hay shortage this winter due to drought: http://observer-me.com/2022/08/16/news/maine-livestock-producers-could-face-hay-shortage-this-winter-due-to-drought/

• Honey bees are another victim of Maine's drought: https://www.mainepublic.org/environment-and-outdoors/2022-08-15/honey-bees-are-another-victim-of-maines-drought

- Hot weather fuels algal blooms in Casco Bay that may be killing soft-shell clams: https://www.pressherald.com/2022/08/15/soaring-temperatures-may-have-caused-large-algal-blooms-and-soft-shell-clam-deaths/
- Private wells running dry in Maine as drought persists:
 https://www.pressherald.com/2022/08/15/private-wells-running-dry-in-maine-as-drought-persists/
- Aroostook's potato crop has escaped drought: https://www.bangordailynews.com/2022/08/15/news/aroostook/aroostooks-potato-crop-has-escaped-drought-joam40zk0w/
- The drought is forcing Maine anglers to change where and when they fish: http://observer-me.com/2022/08/12/news/the-drought-is-forcing-maine-anglers-to-change-where-and-when-they-fish/
- Mainers are taking extreme measures as drought saps well water: https://wgme.com/news/local/mainers-are-taking-extreme-measures-as-drought-saps-well-water
- The warming Gulf of Maine has contributed to Maine's recent hot weather: https://www.mainepublic.org/environment-and-outdoors/2022-08-11/the-warming-gulf-of-maine-has-contributed-to-maines-recent-hot-weather
- Maine's drought is devasting wild blueberry crops on the Blue Hill peninsula: https://www.mainepublic.org/environment-and-outdoors/2022-08-10/maines-drought-is-devastating-wild-blueberry-crops-on-the-blue-hill-peninsula
- Community comes together to help Gray farmer whose well dried up: https://wgme.com/news/local/community-comes-together-help-gray-farmer-well-dried-up-water-goats
- Maine livestock producers could face hay shortage this winter due to drought: https://www.mainepublic.org/environment-and-outdoors/2022-08-08/maine-livestock-producers-could-face-hay-shortage-this-winter-due-to-drought

Articles predating August 4, 2022 meeting

- Drought conditions fuel Maine wildfire: https://www.necn.com/news/local/drought-conditions-fuel-maine-wildfire/2797253/
- Persistent drought in Maine: https://www.pressherald.com/2022/07/31/maine-has-another-month-of-well-below-average-rainfall-as-drought-persists/
- Southern Maine farms impacted by drought: https://wgme.com/news/local/we-are-praying-for-rain-rain-drought-hurting-some-southern-maine-farms
- Maine DEP warns of impacts to surface waters from drought and irrigation practices https://content.govdelivery.com/accounts/MEDEP/bulletins/3267d09

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://newengland.water.usgs.gov/web_app/GWW/GWW.html
- 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:

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|---|----------------------------------|----------------------------|
| Emergency Management Agency | preparedness and mitigation | |
| Nick Stasulis, Maine Field Office Chief, USGS New | Streamflow, groundwater levels | nstasuli@usgs.gov |
| England Water Science Center | | |
| Sarah Jamison/Donald Dumont, National | Weather forecasting for southern | gyx.hydro@noaa.gov |
| Weather Service, Gray, Maine | and western Maine | |
| Louise Fode/Corey Bogel, Warning Coordination | Weather forecasting for northern | Louise.fode@noaa.gov |
| Meteorologist, National Weather Service, | and eastern Maine | corey.bogel@noaa.gov |
| Caribou, Maine | | |
| Kyle Olcott/Laura Paye Maine Dept. of | Dams/hydropower facilities and | Kyle.olcott@maine.gov, |
| Environmental Protection, Bureau of Land | river basin management | Laura.paye@maine.gov |
| Resources | | |
| Susan Breau, Maine Drinking Water Program | Public Water Utilities | Susan.breau@maine.gov |
| Tom Gordon , Public Service Coordinator, Maine | Agricultural conditions | Tom.Gordon@maine.gov |
| Dept. of Agriculture, Conservation & Forestry | | |
| Sherry Hamel, USDA Farm Service Agency, Maine | USDA Secretarial Disaster | sherry.hamel@usda.gov |
| State Office | Designation updates | |
| George Harris, Regional Forest Ranger, Maine | Wildfire conditions | George.harris@maine.gov |
| Forest Service | | |
| Nathan Robbins, Maine Dept. of Environmental | Environmental conditions | Nathan.p.robbins@maine.gov |
| Protection | | |
| Ryan Gordon, Hydrologist, Maine Geological | Hydrologic conditions, Maine | Ryan.gordon@maine.gov |
| Survey | Cooperative Snow Survey | |