

**State of Maine
Drought Task Force
Report on Current Conditions
May 10, 2002**

The Drought Task Force issued previous reports in August, September, November and December, 2001, and January and March, 2002. All previous reports are available on the Internet at www.state.me.us/mema/drought

The Drought Task Force met on Friday, May 10 to assess current conditions in the State.

The Drought Task Force was convened in August of 2001, and held additional meetings throughout the fall and spring. The Task Force is composed of state, federal and private sector agencies who deal with water resource issues.

Throughout this report, references are offered for further information.

Overview:

Thanks to spring rains, surface water conditions (streams, lakes and reservoirs) have returned to near normal across the state. However, ground water levels in south-central, southern and western Maine continue below normal.

As we enter the late spring and summer, normal ground water recession will be experienced across the state. This may bring back water supply problems in many areas as the summer progresses. A prolonged period of dry and hot weather could both cause further drop in natural water levels and cause increased water usage which could stress both public and private water supplies.

Current Conditions:

Streamflows and Runoff:

Streamflows were in the normal range throughout the state of Maine, except in portions of northern Maine where runoff was above-normal.

APRIL RUNOFF	
	% of Median
St. John River at Fort Kent	141
Narraguagus River at Cherryfield	100
Mattawamkeag River near Mattawamkeag	119
Piscataquis River near Dover-Foxcroft	87
Carrabassett River near North Anson	75
Little Androscoggin River near South Paris	90
Saco River at Cornish	95

Storage

The total amount of water in usable storage in the five reporting basins at the end of April was 76 percent of capacity, which is above the long-term end-of-April average of 71 percent.

Reservoir System	Reservoir Capacity (mcf)*	This Month (% Full)	This Month Last Year (% Full)	Long-term Average (% Full)
St. Croix River Basin	26,845	80	72	80
West Branch Penobscot River Basin	58,700	60	51	62
Kennebec River Basin	44,730	89	65	77
Androscoggin River Basin	28,100	89	59	69
Sebago Lake	9,700	66	69	80
TOTAL OF FIVE SYSTEMS	168,075	76	60	71
* mcf-millions of cubic feet				

During the winter, the Maine Department of Environmental Protection (DEP) and the Federal Energy Regulatory Commission (FERC) worked with river basin managers to reduce river levels below minimal levels, in order to preserve storage until the spring recharge. This coordination is still taking place, although minimum flows in many locations have been restored.

Sebago Lake and North Twin Lake remain somewhat below normal. Flow has been reduced from 250 cfs to 133 cfs at Eel Weir Dam to help refill Sebago. Flow has been reduced to 650 cfs at Millinocket during a 2-week mill shutdown to help refill North Twin.

Ground Water

Ground-water levels were in the normal range, except in southern, central and portions of eastern Maine where levels were in the below-normal range. Nine wells showed water-level increases during the month. Water levels in ten wells had decreased when compared to water levels at the end of April 2001. Three wells recorded record month end lows for April.

It is difficult to project specific well status and prognosis across the state on the basis of monitoring wells alone. However, the status of these wells represents an indicator of statewide conditions.

From May through September (the timing varies across the state), evaporation and transpiration normally exceed precipitation. This leads to a normal recession of ground water levels, even without human usage.

The USGS Monthly Current Conditions Report for April is online at:
<http://me.water.usgs.gov/02.apr.html>

Weather and Climatology:

The US Drought Monitor, issued by the Climate Prediction Center, shows the entire state in moderate to severe drought. Between 3 and 6 inches of rain above normal in a week would be needed in one week to bring the index up to normal. Despite above normal rainfall levels in many areas in February, March and April, rainfall totals over the last 18 months are much below normal. Snowfall for the winter of 2001-2002 was below normal.

The next five days may bring a quarter to a half-inch of rain to some areas. Six to ten days out, precipitation is projected to be normal, and eight to fourteen days out, below normal. In the long-term, there is no identifiable trend toward above or below normal precipitation.. This amounts to equal chances of normal, above normal or below normal precipitation.

The overall outlook for the East Coast continues to call for slow improvement, with the likelihood that some water shortages will persist into July. Accumulating enough rain to bring groundwater levels up to normal everywhere in the state following the severe precipitation deficits incurred since last autumn is unlikely. It should be pointed out that below-normal rainfall through July with above-normal temperatures would cause drought impacts to rapidly worsen.

The US Drought Monitor can be found online at: <http://enso.unl.edu/monitor/monitor.html>

In December, it was noted that precipitation would have to run between 125% and 150% of normal over the next six months to bring the state out of drought conditions. As of the end of April, rainfall was 91%, 109% and 79% of normal in Caribou, Bangor and Portland, respectively.

Snow Survey:

Snow surveys have ended for the season. All snow survey reports and maps for the year are posted on the Internet at www.state.me.us/mema/weather/snow.htm.

Background information:

<http://www.umaine.edu/mainclimate>
http://www.ncdc.noaa.gov/ol/climate/research/prelim/US/US_prelim.html
<http://lwf.ncdc.noaa.gov/oa/climate/research/prelim/drought/spi.html>
<http://lwf.ncdc.noaa.gov/oa/climate/research/prelim/drought/palmer.html>
http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/palmer_drought/
<http://enso.unl.edu/ndmc/enigma/indices.htm#palmer>

Weather sites:

<http://www.nws.noaa.gov/er/gyx>
<http://www.nws.noaa.gov/er/car>
<http://www.state.me.us/mema/weather/genweath.htm>

Public Water Supplies:

Approximately eight water systems have asked request in place for voluntary water conservation. No systems have mandatory restrictions in place at this time. The Drinking Water Program reports that they have received no new requests for emergency well permits since early March. This is an indication that seasonal businesses, a concern earlier in the year, are not experiencing major water supply problems at this time.

The Maine Rural Water Association and the Maine Water Utilities Association held seven workshops across the state on drought, and water management for drought. The Drinking Water Program, USGS, NWS and MEMA were participants at all forums.

It is still critical that water systems pay close attention to drought conditions. The associations, the DWP and the PUC will continue to keep the issue of drought potential and sound water management before public water supplies.

Private Water Supplies:

Failure of private rural wells have represented a greater problem for the public than possible shortages from public water supplies. Many of the involved agencies have experienced an increase in calls from members of the public with dry wells. Following an appeal to homeowners to report low and dry wells, MEMA has received information from over 1500 households. Calls are still coming in at the rate of six or seven per day, some from individuals reporting that their wells have very recently gone dry.

Statistical research commissioned in March estimated some 2300 household with dry wells at that time, with another 18,400 with low water levels. According to this survey, over 16,000 families had been without water at some time between June of 2001 and March of 2002.

A link to full survey results may be found online at www.state.me.us/mema/drought.

Well Drilling

Because spring recharge has refreshed a number of wells, well-drillers generally are caught up with emergency cases. The emergency bill to loosen permit restrictions on the movement of well-drilling equipment on posted roads was passed and signed by the Governor on March 21, which allowed drillers to continue to respond to homeowners with dry wells.

Fire Potential:

Fire danger is rated high across the state at this time, largely because of recent warm windy weather, and dry grasses from last fall. It is expected that the danger level will fall in the coming weeks as green vegetation grows up. However, dry weather can change fire potential quickly, and conditions will be monitored closely.

Maine is a partner with northeastern states and eastern Canadian provinces for fire suppression. Planning among compact members include resource identification, mutual aid, and potential equipment pre-positioning.

Other Issues

Information for Homeowners:

General information about wells and well-drilling is available on the web site of the State Drinking Water Program. Homeowners can determine if the driller they are thinking of hiring is licensed and in good regulatory standing by contacting the Maine Well Drillers and Pump Installers Commission (207-287-5699)

Individuals should let their towns know if they are having water supply problems. This will lead to better information about the magnitude of the problem; in addition, the town may be able to offer some emergency assistance. Individuals may also call MEMA at 800-452-8735 for information.

It is recommended that homeowners get their water tested if the water supply was low or dry, and the water level has rebounded. A test would determine if contamination has entered the well or water system.

Not Recommended:

Homeowners should not have wells refilled. Water dumped into a well will last perhaps 3 days before it completely drains away. More of the water will drain into the ground in this time frame than can usually be used by the household. In addition, contamination of water systems can result by opening the well and introducing water of outside origin. Contamination of the area surrounding the well or the aquifer can also result.

Economic Impact:

Although hydroelectric generation is still reduced at many sites, other economic indicators are positive.

Pre-bookings for the summer indicate a high level of interest in Maine as a tourist destination. If current surface water conditions are maintained, it appears that the drought will not create an impediment to recreation. Lake levels are near normal, and reservoir storages and stream flows appear to promise a normal white-water rafting season. As things currently stand, visitors to Maine should not experience any negative repercussion from the drought.

Sources of Assistance:

The Governor's request for FEMA assistance has been initially denied. An appeal is allowed under law; the decision about an appeal has not been made. A request for assistance for public water systems from the Army Corps of Engineers remains under review. The following programs have been and remain available:

USDA, Agricultural Disaster Assistance. Implementation of the Emergency Conservation Program has just been approved for Maine, which can provide grants up to 50% for well-drilling or other water transport or delivery costs. An agricultural disaster designation has also been

approved for the State, making a variety of other programs available. Farmers should check with their Farm Service Agencies for information on available programs.

USDA, Rural Development: The 504 Loan and Grant Programs are available to qualified individual homeowners. Applicants must live in an area designated as rural, must own the house and the land it is built on, and income-qualify for the assistance. Loans are 1%, and can be written for as long as a 20-year term. Grants are available to qualified applicants at least 62 years of age.

More information on this program is available from USDA, Rural Development, at:

- Presque Isle (serves Aroostook and Washington Counties): 764-4155/4157.
- Bangor (serves Hancock, Knox, Lincoln, Penobscot, Piscataquis, Somerset and Waldo Counties): 990-3676
- Lewiston (serves Androscoggin, Cumberland, Franklin, Kennebec, Oxford, Sagadahoc, and York Counties): 753-9400

Community Development Block Grant (CDBG), administered by the Department of Economic and Community Development (DECD) has issued some Urgent Needs Funds for community water supplies. Other CDBG assistance may assist some communities whose citizens have private well problems. The application deadline for these programs has passed, and grants will be awarded later in the year.

More information is available from DECD or the jurisdiction's Regional Planning Commission.

- DECD: Mike Baran, 624-9816, mike.baran@state.me.us

General Assistance:

Individuals should check with town General Assistance (GA) Administrators to determine if their situation qualifies for assistance.

Community Support:

Some towns or utilities may be delivering water to elderly or special needs residents, making town water available to residents, making shower facilities available, etc. Towns need to be encouraged to continue to offer emergency assistance where needed.

Public Information:

In mid-December, Governor King focused attention on the drought problem, and introduced a state web site featuring tips for homeowners, links to scientific data, and all Task Force reports. The address of the site is www.state.me.us/mema/drought. The site will continue to be updated with new information as long as drought conditions persist.

All agencies represented on the Task Force continue to respond to public and media inquiries, and to do outreach to their constituents.

It was recommended that future public information include the recommendation that homeowners have their water tested if their wells have been low or dry.

Action Steps:

As part of the Governor's request for disaster assistance, actions taken and planned were summarized. Some of these include:

Actions taken:

- Constant monitoring of drought conditions, and water outlooks, information sharing among State, federal, and private agencies (Drought Task Force).
- Voluntary or mandatory conservation orders issued by 10 water districts over the last year, successfully averting critical local water shortages.
- Statewide public information and education campaign, including urging conservation as appropriate, information on aid programs, and dissuading dangerous practices such as putting water from an outside source into a well.
- Coordination among state, federal and private agencies to adjust of mandatory minimum flows on several rivers and streams in order to avert critically low stream flows.
- Participation in workshops, legislative briefings and conferences to educate public officials.
- Reallocation of personnel and financial resources within State agencies to respond to individuals, communities and public water facilities, including but not limited to providing technical assistance on private water systems, expedited emergency permitting of public water supplies, reallocation of limited loan and grant funds to assist most critical needs.
- Continued response by Maine's licensed well-drillers through the winter (usually an off-season) to homes without water, at an increased cost to those operations.
- Passage of emergency legislation to loosen permit requirements for movement of well-drilling equipment on weight-restricted roads.
- Damage assessment of farm and crop losses, and application for USDA assistance
- Intensive damage assessment of public, individual and business impact.
- Research into available aid programs.
- Local, County and State outreach and damage assessment
- Accelerated wildfire surveillance and response
- Provision of water for families with no home water supply by communities and public water systems

Actions planned or under consideration:

- Continue all current activities
- Implement aggressive regional fire suppression plan for the coming fire season including pre-positioning of equipment, resource sharing strategies and increased surveillance
- Work with social service and voluntary agencies to bridge the gap for families, especially those with special needs, between current conditions and restoration of adequate water service to the home
- Assess need for water testing of private supplies
- Continue public information campaign, developing content as dictated by current situation.

Conclusion:

Stream flows and river and lake levels have returned to near-normal levels. However, ground-water levels are below normal in the south-central, southern and western Maine. In other areas, although ground-water is within the normal range, it is at the low end of that range. Normal ground-water recession through the summer will see levels decrease. A prolonged period of dry and hot weather could push many areas back into critically low ground water levels.

It is recommended that homeowners and public water supplies alike, particularly those who have experienced water supply problems, should continue to practice sensible water management and look for improvements in their systems (repairing leaks, etc.).

All agencies involved in water resources issues, as well as those who respond to community problems and human needs, will need to continue to monitor the situation closely, and work in their areas of expertise to support Maine citizens.

The next meeting of the Drought Task Force is scheduled for mid-July, 2002. All or selected members of the Task Force will come together sooner if conditions warrant.

Information Resources:

U.S. Geological Survey
207-622-8201
<http://me.water.usgs.gov>

National Weather Service, Gray, Maine
207-688-3216
<http://www.nws.noaa.gov/er/gyx>

National Weather Service, Caribou, Maine
207-496-8931
<http://www.nws.noaa.gov/er/car>

Maine Department of Conservation, Maine Geological Survey
207-287-2801

Maine Emergency Management Agency
207-626-4503
<http://www.state.me.us/mema>

Maine Department of Human Services, State of Maine Drinking Water Program
207-287-2070
<http://www.state.me.us/dhs/eng/water>

Maine Department of Economic and Community Development (CDBG information)
207-624-9816

