

Preparing, Responding, and Recovering From a Drought

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Drought conditions are relatively rare in Maine. But they do happen and may have significant impacts to some public water systems. Droughts are difficult to predict and may take long periods of time (months or years) to develop, or may occur relatively quickly following a severe dry spell, depending on the type of drinking water source and local conditions. For a public water system, determining who receives priority with water usage during a drought can be difficult and fraught with emotion. Public water systems must be able to look at the larger picture. Water is needed for fire suppression, drinking water, and sanitary needs. Preserving those key functions is the priority. Water is also needed to supply businesses, industrial cooling, recreational activities, and to maintain aquatic ecosystems.

Your water source, whether it is a lake, river or groundwater (well), may be experiencing chronic insufficient recharging from a prolonged period of low precipitation and/or insufficient snow melt. Now is the time to think about monitoring, tracking, and measuring water use to determine whether your source of water is being impacted by drought. Public education in times of drought proves tremendously successful with gaining voluntary compliance, should water conservation measures become necessary.

Drought impacts on public water systems may include:

- ◆ Deterioration of source water quality
- ◆ Increase in treatment and pumping related costs
- ◆ Loss of fire suppression capabilities
- ◆ Loss of a groundwater or surface water source
- ◆ Limited options for interconnections with neighboring water systems due to water scarcity



Water supply options during a drought:

- ◆ Implement voluntary or mandatory water conservation measures
- ◆ Bulk water hauling - If you have a storage tank available to hold the water (putting water into a well will likely only have a very temporary positive impact on you water supply). Information on requirements for bulk water hauling can be found at: <http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/fit/documents/EmergencyBulkWaterTransportPolicyProcedure.pdf>



Water supply options during a drought (cont.):

- ◆ Use of an interconnection with a neighboring water system if they are not impacted by the drought
- ◆ Extend a surface water intake deeper into the water
- ◆ Contact your well driller about lowering the well pump deeper into the well to increase the capacity of the well
- ◆ Construct a new well (note: modifications to existing wells - other than changes to the pump - or the construction of a new well must be approved by the Drinking Water Program before work is done)



Resources for planning, responding, and recovering from a drought:

Drought levels are monitored and updated every Thursday by the US Drought Monitor
<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?ME>

The Drinking Water Program has a guidance document to help get started with drought planning
<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/wrt/documents/droughtContingencyGuidance.pdf>

The U.S. Environmental Protection Agency has an Incident Action Checklist that provides steps to prepare, respond, and recover from a drought https://www.epa.gov/sites/production/files/2015-06/documents/drought_0.pdf

The U.S. Environmental Protection Agency has an interactive guide with worksheets, best practices, videos, and resources for drought emergencies https://www.epa.gov/sites/production/files/2016-03/documents/epa_drought_response_and_recovery_guide.pdf

The U.S. Environmental Protection Agency has developed Water Conservation Tips for Residents
https://www3.epa.gov/region1/eco/drinkwater/water_conservation_residents.html

The Effects of 2001-2002 Drought on Maine Drinking Water Supplies
http://umaine.edu/mitchellcenter/files/2012/06/Drought_digest.pdf

The Effects of the 2001-2002 Drought on Maine Surface Water Supplies
<http://digitalcommons.library.umaine.edu/etd/1208/>

For more information or assistance, contact the Drinking Water Program at (207) 287-2070