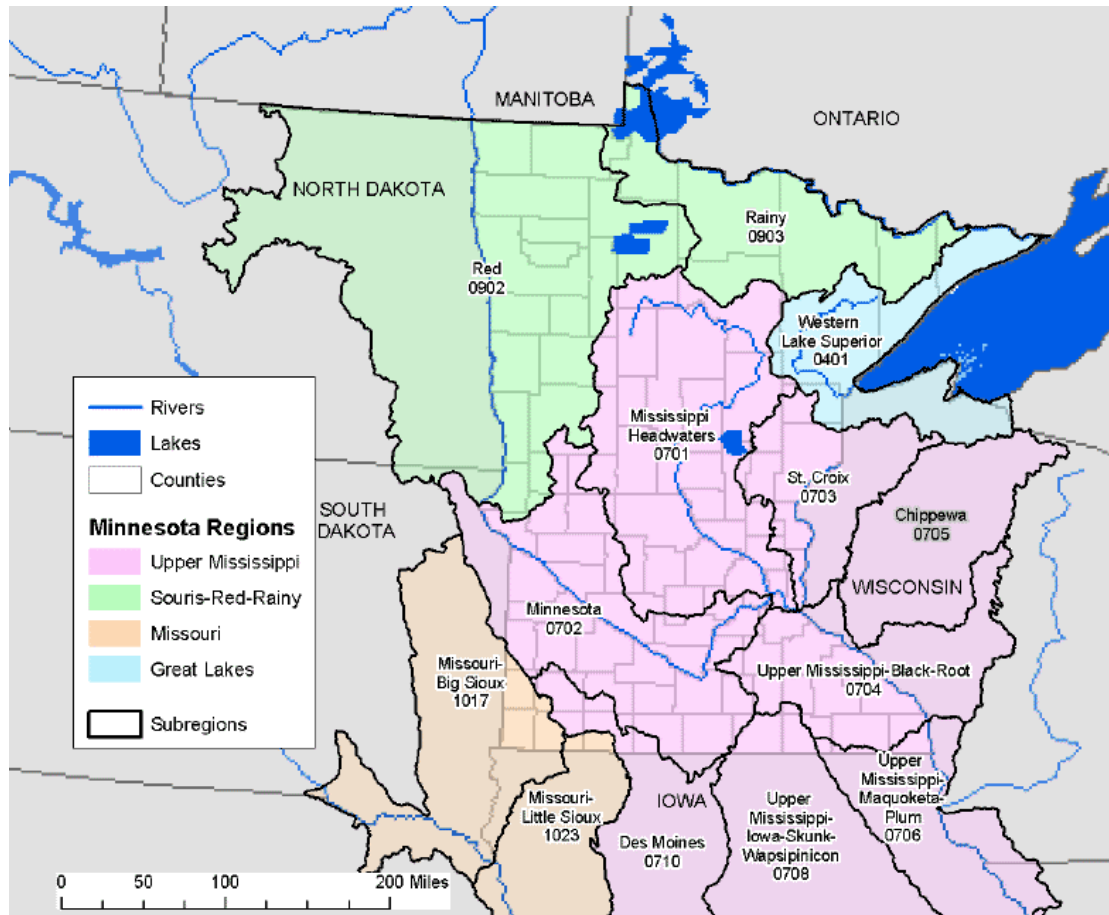


Minnesota Statewide Drought Plan

April 29, 2009

This plan provides a framework for preparing for and responding to droughts to minimize conflicts and negative impacts on Minnesota's natural resources and economy.



Statewide Drought Plan watersheds:

- Red 0902
- Rainy 0903
- Western Lake Superior 0401
- Mississippi Headwaters 0701
- St. Croix 0703
- Minnesota 0702
- Upper Mississippi-Black-Root 0704
- Upper Mississippi-Maquoketa-Plum 0706
- Upper Mississippi-Iowa-Skunk-Wapsipinicon 0708
- Des Moines 0710
- Missouri-Little Sioux 1023
- Missouri-Big Sioux 1017

STATEWIDE DROUGHT PLAN MATRIX

Drought Phase/Triggers	State and Federal Actions	Water Users and Suppliers Actions
<p>NON-DROUGHT PHASE A significant portion of the watershed (see map) is not under drought conditions according to the U.S. Drought Monitor.</p> <p>The U.S. Drought Monitor is a weekly index depicting the location and intensity of drought conditions using a blend of quantitative and qualitative indicators. Drought conditions referenced in this plan are keyed to the U.S. Drought Monitor. http://drought.unl.edu/dm/monitor.html</p>	<ul style="list-style-type: none"> ➤ Develop/maintain precipitation, stream flow, ground water and water quality monitoring programs. ➤ Conduct state and regional water studies and coordinate actions. ➤ Assist water suppliers and other users in developing conservation measures. ➤ Continue and improve water conservation education. 	<ul style="list-style-type: none"> ➤ Develop/update/implement water supply plans (including drought preparedness and response and water conservation programs). ➤ Adopt conservation rate structures and ordinances. ➤ Establish mutual aid agreements, interconnections, conservation education, redundant/alternative supplies, etc. ➤ Minimize water supply system losses and improve water use efficiency.
<p>DROUGHT WATCH PHASE A significant portion of the watershed (see map) is “Abnormally Dry” or in a “Moderate Drought”.</p>	<ul style="list-style-type: none"> ➤ Inform Drought Task Force of conditions. ➤ Intensify selected monitoring activities. ➤ Initiate public awareness. ➤ Notify water suppliers of moderate drought conditions. ➤ Monitor Mississippi River flows and coordinate with the U.S. Army Corps of Engineers (USACE) and hydropower facility owners. 	<ul style="list-style-type: none"> ➤ Monitor potential conflicts and problems and notify DNR of source conflicts. ➤ Public water suppliers provide conservation information and request customers to implement voluntary measures to reduce water use.
<p>DROUGHT WARNING PHASE A significant portion of the watershed (see map) is in a “Severe Drought”, or for public water suppliers using the Mississippi River, the average daily flow at the USGS gage near Anoka is at or below 2000 cfs for five consecutive days.</p>	<ul style="list-style-type: none"> ➤ Convene Drought Task Force. ➤ Increase public drought awareness. ➤ Notify water suppliers of severe drought conditions. ➤ Monitor implementation of the Mississippi River System-Wide Low-Flow Management Plan. 	<ul style="list-style-type: none"> ➤ Public water suppliers implement appropriate water use restrictions contained in their water supply plans. ➤ Other water users implement appropriate conservation measures. ➤ Public water suppliers implement water use reduction actions with a goal of reducing water use to 50% above January levels. ➤ Dam operators implement the Mississippi river System-Wide Low-Flow Management Plan.
<p>RESTRICTIVE PHASE A significant portion of the watershed (see map) is in an “Extreme Drought”, or for public water suppliers using the Mississippi River, the average daily flow at the USGS gage near Anoka is at or below 1500 cfs for five consecutive days.</p>	<ul style="list-style-type: none"> ➤ Notify water suppliers of extreme drought conditions. ➤ Closely monitor river flows. ➤ Continue drought awareness efforts to encourage conservation. 	<ul style="list-style-type: none"> ➤ Follow MDNR allocation restrictions. ➤ Public water suppliers implement water use reduction actions with a goal of reducing water use to 25% above January levels. ➤ All appropriators conserve water and minimize non-essential water uses.
<p>EMERGENCY PHASE A significant portion of the watershed (see map) is in an “Exceptional Drought”, or highest priority water supply needs are not being met, or there are threatened or actual electricity shortages due to cooling water supply shortages, or for public water suppliers in the Twin Cities, the average daily flow of the Mississippi River USGS gage near Anoka is at or below 1000 cfs for five consecutive days.</p>	<ul style="list-style-type: none"> ➤ Advise Governor on need for emergency declaration. ➤ Minnesota Division of Homeland Security and Emergency Management implements MN Emergency Operations Plan (MEOP). ➤ Consider request to the USACE for the release of water from the Mississippi River Headwaters Reservoirs. 	<ul style="list-style-type: none"> ➤ Public water suppliers implement mandatory water use reduction actions with a goal of reducing water use to January levels. ➤ Limit water used based on highest priorities defined in Minnesota Statutes 103G.261. ➤ Implement measures consistent with an emergency declaration. ➤ Provide bottled water, hauled water, and sanitation supplies to users, as needed.

Responsibilities, Plans and Actions Related to Drought Planning

Minnesota Statewide Drought Plan

Legislation enacted in 1990 mandated the Department of Natural Resources (DNR) to prepare a drought plan. Minnesota Statutes (MS), Section 103G.293 states:

"The commissioner shall establish a plan to respond to drought-related emergencies and to prepare a statewide framework for drought response. The plan must consider metropolitan water supply plans of the metropolitan council prepared under section 473.156. The plan must provide a framework for implementing drought response actions in a staged approach related to decreasing levels of flow. Permits issued under 103G.261 must provide conditions on water appropriation consistent with the drought response plan established by this section."

The attached Drought Plan table outlines the staged approach for implementing drought response actions.

Major Participants

State, Federal and local agencies, along with water users and suppliers in Minnesota, all have responsibilities before and during times of drought. In addition to ongoing studies and coordination efforts, the primary responsibilities of the major participants are:

- [MN DNR – DNR Waters](#) is responsible for maintaining and updating the Statewide Drought Plan, monitoring and communicating drought conditions, as well as for convening the State Drought Task Force. DNR Waters [regulates water use by permit \(water appropriation\)](#) and by requiring [Water Supply Plans](#) for public water suppliers serving more than 1,000 people. Other DNR divisions monitor drought impacts on forestry, wildlife and fisheries.
- [Metropolitan Council](#) – the Metropolitan Council is responsible for development of a regional master water supply plan for the seven-county metropolitan area and reviews local water supplies as part of community comprehensive plans.
- [U.S. Army Corps of Engineers](#) – the USACE operates reservoirs in 3 river systems in Minnesota primarily for commercial navigation, flood control and/or navigation (Minnesota River, Red River of the North and the Mississippi River). The Mississippi River headwaters reservoirs have been studied for purposes of water releases during times of drought. Under the USACE operations plans, emergency releases may be done only under certain conditions to meet health and safety needs and in consultation with the [federal Bureau of Indian Affairs](#), the [Minnesota Chippewa Tribal government](#), and the MN DNR. The USACE also helps with preparedness and equipment.
- Water Users and Suppliers – local communities and water users must implement conservation measures as required by DNR Waters and Met Council.
- [Governor of Minnesota](#) – the Governor is empowered to declare a critical water deficiency by executive order. (103G.291 Subd.1)

Other Participants and their capabilities

[Department of Public Safety, Homeland Security and Emergency Management \(HSEM\)](#) – Public information and response coordination

[Pollution Control Agency](#) – Public information, response procedures, exercise capabilities, data collection

[National Weather Service](#) – Weather and hydrologic forecasts and warnings

[Department of Agriculture](#) – Assistance with crop and other farming-related drought issues

[Department of Health](#) – Public Water Supply

[Board of Water and Soil Resources \(BWSR\)](#) – technical and financial assistance to agricultural producers

Related Plans

- [Local Water Supply Plans](#) – address projected demands, adequacy of the water supply system and planned improvements, existing and future water sources, natural resource impacts or limitations, emergency preparedness, water conservation, supply and demand reduction measures, and allocation priorities. [Met Council oversees those in the 7-county metro area.](#)
- [Mississippi River System-Wide Low-Flow Management Plan](#) – A plan conceived by the DNR, the USACE and the hydropower facilities along the Mississippi River upstream of St. Paul, the primary purpose of which is to help ensure run-of-river operations during low flow periods and coordination among the hydropower facility operators.
- [MN Emergency Operations Plan \(MEOP\)](#) – The MEOP addresses drought as well as other natural hazards. The plan responds to potential emergencies (nuclear power plants, etc.) as they relate to extreme drought conditions.

STATE DROUGHT TASK FORCE

Purpose and Role

The State Drought Task Force is convened, as defined in the Drought Warning Phase of the Drought Table, to provide coordination and communication between agencies and institutions affected by drought and to provide a central source for the news media. The Task Force could also be called together at other times as needed to serve as a forum for discussion of drought management plans and policies. In cases of more localized drought conditions, the Director of DNR Waters may bring appropriate parties together on a Regional Drought Task Force for the same purposes.

Members

DNR Waters	Director/Assistant Director
DNR Waters	State Climatologist
DNR Wildlife	Director
DNR Forestry	Wildfire Suppression Supervisor
Board of Water and Soil Resources	Executive Director
Department of Agriculture	Director, Agronomy & Plant Protection
Department of Agriculture	State Statistician
Department of Health	Director, Drinking Water Protection
Department of Public Safety	Director, Homeland Security and Emergency Mgmt
Department of Transportation	Director, Environmental Services
Minnesota Planning	Director, Local Planning Assistance
Pollution Control Agency	Director, Environmental Outcomes
University of Minnesota	Climatologist/Meteorologist, Extension Service
Metropolitan Council	General Manager, Environmental Services
National Weather Service	Meteorologists-in Charge
North Central River Forecast Center	Hydrologist-in-Charge, Chanhassen
U.S. Army Corps of Engineers	Chief, Water Control Section
U.S. Department of Agriculture	Executive Director, MN Farm Service Agency
U.S. Department of Agriculture	State Conservationist, NRCS
U.S. Geological Survey	Director, Minnesota Water Science Center
American Waterworks Association	Water Utilities Council
Association of Minnesota Counties (AMC)	Executive Director
Hospitality Minnesota	Executive Vice President