

MINNESOTA STATEWIDE DROUGHT PLAN

Development

The original Minnesota Statewide Drought Plan was submitted to the Legislature in October of 1990, in response to the 1987-1989 drought which was felt throughout the United States and Canada. It consisted only of a matrix (titled "Agency Drought Coordination Matrix") with 4 columns of local action response to 5 different conditions/phases of climate (normal to extreme drought). Not only did the local actions include monitoring and conservation, but reference was made in the matrix (Restriction and Emergency Phases) to consider/implement "releases from reservoirs above the low flow plans".

The original plan has since undergone updates in 1993, 2006 and, now, 2009.

1993: Text was added to the Plan which provided background to the inception of the plan, a definition of drought, on-going management activities, drought response actions, coordination with Metropolitan Council, future updates as strategies evolve, and a list of the State Drought Task Force Members.

2006: This version added internet links, added discussion about the 1999-2000 drought Experience, included the role of hydropower facilities minimizing fluctuations of flow in the Mississippi River during times of drought, and updated names and phone numbers of Task Force Members, among other things.

2009: A new Statewide Drought Plan has been developed. We revised the 2006 plan in response to the Metropolitan Council's first phase of water supply planning. The following "next step" was included in the 2007 Report to the Legislature:

"Work with the DNR and other agencies to review and update the state drought response plan". This new matrix is returning, for the most part, to the format of the original 1990 plan.

The purpose of the matrix, as in 1990, is to encourage vigilance and communication before and during defined drought phases. Major changes include:

1. The combination of the water suppliers' and water users' action columns to make just one "Water Users and Suppliers Actions" column.
2. The use of the U.S. Drought Monitor for defining drought phases. This is more accurate than past reliance on the Palmer index PLUS several other indices (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).
3. The reference to Mississippi River flows as triggers in the Drought Warning and Restrictive Phases. These references are for public water suppliers who use the Mississippi River. Because of the severity of the Emergency Phase, all Twin Cities public water suppliers must follow the Emergency Actions if the river falls below 1000 cfs at the USGS gage near Anoka.
4. The addition of water use reduction goals for water suppliers. Under the US Drought Monitor's Severe Drought (1:10 years) category (Drought Warning Phase), water suppliers would strive to reduce water use to 50% over the January use; under the Extreme Drought (1:20 years) category (Restrictive Phase), suppliers should strive to reduce water use to the 25% over January use figure.

The revised Statewide Drought Plan is a culmination of suggestions and reviews by internal DNR participants, Met Council, U.S. Army Corps of Engineers, Twin Cities' water suppliers, and representatives from American Water Works Association (AWWA).