

2001 WATER YEAR DATA SUMMARY 2002

October 1, 2000 - September 30, 2002

**by the DNR Waters Staff
St. Paul, MN**

May 2003



**Minnesota
Department of Natural Resources
waters**

"Helping people ensure the future of our water resources"

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introduction

This publication provides a review and summary of basic hydrologic data gathered through DNR Waters programs. There are four major areas of data collection including climatology, surface water, ground water and water use. These areas follow the hydrologic cycle (see diagram) and provide important facts concerning the distribution and availability of Minnesota's water resources.

Basic hydrologic data are essential to a variety of water resource programs and related efforts. The extent of our knowledge depends on the quality and quantity of hydrologic data. Analysis and use of data are vital to understanding complex hydrologic relationships. With expanding technologies, there is a greater need for even more data of higher quality.

The DNR Waters web site at www.dnr.state.mn.us/waters provides a wealth of information on Minnesota's lakes, rivers and streams, wetlands, ground water and climate, much more than can be included in this summary report. Maps, publications, forms, educational resources and answers to common water resources questions can be found on the site. Visitors will find access to lake level data, stream flow information and ground water level data. The site, which is updated regularly, is intended to help the citizens of Minnesota become better stewards of the state's water resources by providing comprehensive information about those resources.

This report is a continuation of Water Year reports published by DNR Waters in 1979, 1980, 1991, 1993, 1995, 1997, 1999 and 2001. This edition is also available on our web site.

water year

The climatology, surface water and ground water data presented are for Water Years 2001 and 2002.

WY 2001: October 1, 2000 - September 30, 2001

WY 2002: October 1, 2001 - September 30, 2002

Use of water year as a standard follows the national water supply data publishing system that was started in 1913. This convention was adopted because responses of hydrologic systems after October 1 are practically all a reflection of precipitation (snow and rain) occurring within that water year.

Water use data is reported and presented on a calendar year basis.

acknowledgements

We wish to express our gratitude to the listed authors and others who contributed to this publication. Special thanks to Doug Schaffer, and especially Jim Zicopula for assistance with layout and design.

COVER PHOTOGRAPH:

Mississippi River/St. Paul Airport (Holman Field), April 23, 2001

Courtesy of the Office of Aeronautics, Minnesota Department of Transportation

Glen Yakel, *Editor*

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table of contents

Chapter 1: **CLIMATOLOGY**..... 1

by Greg Spoden

- Water Year 2001 Climate (October, 2000 - September, 2001)
- Notable Precipitation Events - 2001
- Spring Flooding - 2001
- Water Year Summary
- Water Year 2002 Climate (October, 2001 - September, 2002)
- Notable Precipitation Events - 2002
- State-Averaged Total Rainfall, June - August (1895 to present)
- Water Year Summary

Chapter 2: **SURFACE WATER**..... 17

Stream Flow by Dana Dostert

- Stream Drainage Systems
- 81 Major Watersheds
- Nine Major Stream Basins
- Stream Gaging in Minnesota
- Water Year 2001
- Flooding Events - 2001
- Water Year 2002
- Hydrographs: 10 Selected Rivers

Lake Levels by Joe Oschwald

- Lake Level Minnesota/Cooperative Programs
- Lake Level Data on the DNR Website
- Lake Level Trends - High Water Levels, 5 Selected Lakes
- Landlocked Basins - High Water Levels, 5 Selected Lakes
- Ten-Year Trends - Recorded Water Levels and 10-Year Averages, 10 Selected Lakes
- 2001 and 2002 Annual Lake Level Fluctuations

table of contents

Chapter 3: **GROUND WATER**.....43

by Laurel Reeves

- Aquifers
- Statewide Summary
- Unconfined Aquifers (Water Table)
- Confined Aquifers
- Buried Drift Aquifers
- Bedrock - Prairie du Chien-Jordan Aquifer
- Bedrock - Mt. Simon Aquifer
- Network Improvement
- Ground Water Monitoring in Minnesota

- County Geologic Atlas and Regional Hydrogeologic Assessment Program
by Jan Falteisek

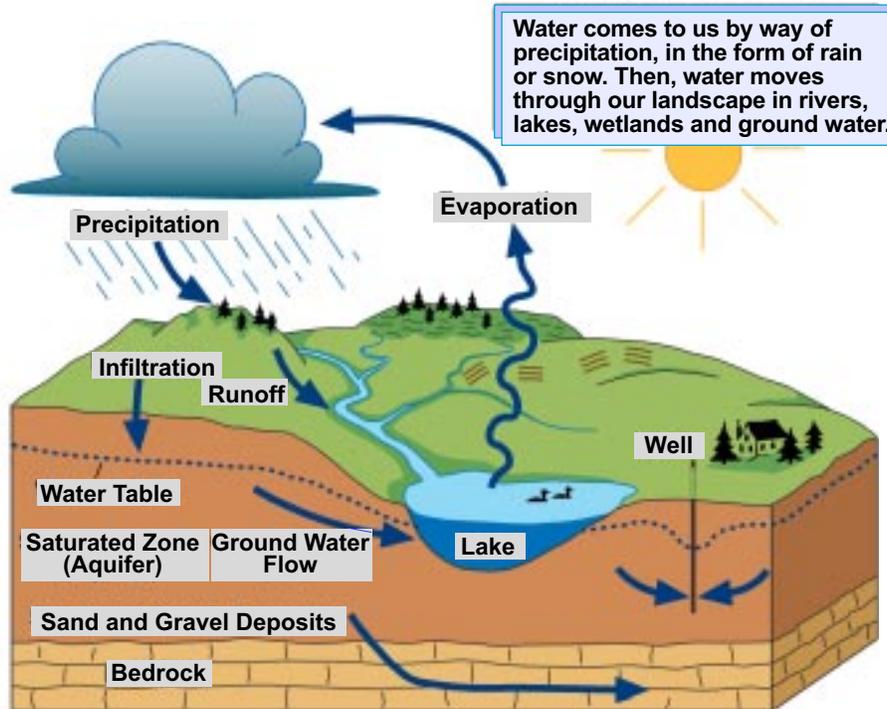
Chapter 4: **WATER USE**.....55

by Sean Hunt

- Statewide Water Use Comparison for Calendar Years 2000 and 2001
- Water Use
 - Power Generation
 - Public Water Supply
 - Irrigation
 - Industrial Processing
 - Other Uses
- Irrigation - Precipitation Connection
- Reported Water Use by County, 2000-2001
- Minnesota Reported Water Use, 2000-2001

hydrologic cycle

The Hydrologic Cycle...



The hydrologic cycle is a concept used to explain the movement of water around the earth. This movement is continuous and has no beginning or end. Change at any point in the cycle will be reflected later in the cycle.

Surface water, which predominately exists in oceans, is evaporated into the atmosphere by the energy of the sun. It returns to the earth as precipitation (rain or snow). As precipitation falls, it may be intercepted by vegetation and evaporate or it may reach the ground surface. Water that reaches the surface may either soak into the soil or move downslope. As it soaks into the soil (infiltration), it may be held in the soil or con-

tinue to move downward and become ground water. Ground water may be stored in the ground, returned to the surface as a spring, flow into a concentrated body such as a stream or lake, or be returned to the atmosphere by plant transpiration. Water that does not infiltrate the soil moves downslope, until concentrated areas form a stream. Streams lead to lakes and into other streams, which ultimately return the water to the oceans.

At any point where water is on the ground surface, it is subject to evaporation into the atmosphere or infiltration into the soil.

minnesota counties

