

HYDROLOGIC MONITORING NETWORK

INDICATOR: Number of hydrologic monitoring sites

THIS INDICATOR IS A
KEY MEASURE
IN **PART ONE**

WHY IS THIS INDICATOR IMPORTANT?

Water constantly moves among air, lakes, streams, soil, and aquifers. Natural and human alterations of this cycle can result in problems such as rapid runoff, high lake levels, altered subsurface water levels, and changes in water supply. A quality hydrologic monitoring network informs decision-making that fosters a healthy economy, environment, and communities.

More accurate and timely data improve flood warning and response, water supply management, clean water, and many other decisions that affect quality of life in Minnesota.

WHAT IS DNR DOING?

DNR uses a variety of methods to monitor and maintain the quantity and quality of Minnesota's waters. Working with citizen observers and other agencies, DNR measures precipitation, lake levels, streamflow, and groundwater levels at more than 2,800 locations. Information gathered forms a baseline against which to evaluate fluctuations and determine if they are natural or human induced.

The County Geologic Atlas Program (see Water Resources Data indicator), in combination with the improved groundwater monitoring network being established for the 11-county Twin Cities metropolitan area, will help local, regional, and state water managers understand how to sustainably manage aquifers and protect groundwater quantity and quality.

Looking forward, DNR will continue to improve monitoring and mapping to better address climate change, clean water goals, and local planning needs, and to help ensure we have sustainable quantities and quality of water to meet Minnesota's future needs.

TARGET: Establish and maintain a hydrologic monitoring network that provides timely, accurate information needed for emergency response and sustainable natural resource management in coordination with federal, state and local partners. We will establish new data collection locations and maintain old ones based on the needs of agency and local partners. Our 10-year goal includes completing the 11-county groundwater monitoring network, establishing at least five groundwater management areas for greater Minnesota based on interagency priorities, creating an integrated interagency surface water and groundwater data input and retrieval system, and establishing a stream flow monitoring network that supports MPCA's TMDL efforts in the 81 major watersheds and improves advance flood warning for communities most susceptible to flood damage. Recent accomplishments include evaluating 1,018 wells (61% of the state's monitoring well network), replacing several hundred rain gages used by state volunteers, and installing more than 75 multiple-use, real-time telemetry stream gages.



DNR and partners measure precipitation, lake levels, stream flow, and well water levels around the state.

LEARN MORE ABOUT:

- Minnesota's water resources at: www.mndnr.gov/waters