

PUSHING REMOTE SENSORS

The Department of Water Resources (DWR) utilizes robust technology called PRESENS (Pushing REmote SENSors) to continuously collect valuable water resource data needed for sound scientific decision-making on water development, planning, and appropriation in North Dakota.



Continuously collecting important and beneficial water resource data.

COLLECT



Data supports drought and flood response, and planning efforts.



PRESENS water level data can be collected at both surface and ground water sites.

DATA

PRESENS units are collecting over 40,000 data points daily.



REAL-TIME DATA

Real-time data is transmitted to the DWR database once per day.



UNITS



Designed, Tested, & Installed

by the agency's existing Information Technology (IT) professionals, hydrologists, and technicians.

Over 400 PRESENS

currently deployed, with a long-term goal of thousands added to create an integrated data collection network across the state.





Settings & Health

are remotely adjustable. Firmware updates and device statistics are transmitted to monitor device health and ensure consistent operation.

Funding Support

including \$1.5 million appropriated to DWR during 2023-2025 to expand PRESENS.





Multiple Data Types

collected including water levels, barometric pressure, soil moisture and temperature, precipitation, and air temperature.

Water Resource Data

is publicly available at: https://www.dwr.nd.gov/info_edu/map_data_resources/









