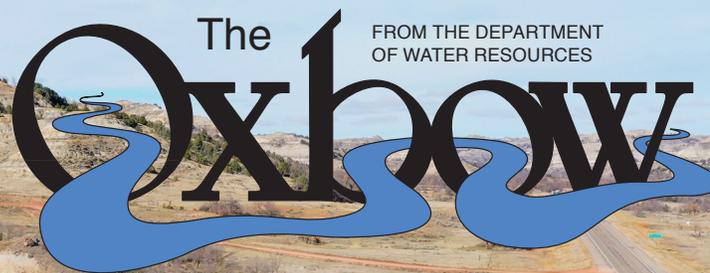




John Paczkowski, P.E.  
State Engineer, Department of Water Resources



## JOHN PACZKOWSKI NAMED STATE ENGINEER

In October, Andrea Travnicek, Ph.D., Director of the Department of Water Resources (DWR), announced John Paczkowski as State Engineer for the agency, noting his considerable dedication, strong leadership, and vast knowledge of North Dakota's water resources.

Paczkowski is a long-standing team member and has served the state since 1991 in various roles, including Interim State Engineer, Assistant State Engineer, Regulatory Division Director, and Project Manager for the Appropriation Division. He has a well-established rapport with the water community, and extensive experience in both water management and water development efforts throughout North Dakota. Paczkowski has demonstrated steady and strategic guidance in several key areas including, flood risk mitigation efforts, input on water supply and development projects across the state, management of sovereign lands, dam safety, and drainage-related issues, and provided overall agency leadership in his appointed role as Interim State Engineer since April 2020.

"Throughout his career, John has been involved in a multitude of water-related regulatory issues and development initiatives. His comprehensive understanding

regarding the important management of North Dakota's water resources will continue to be an invaluable asset to the state and to the Department of Water Resources," said DWR Director, Andrea Travnicek.

A native of Kensal, ND, John earned a Bachelor's Degree in Agricultural Engineering from North Dakota State University. He has been married to his wife, Monica, for 29 years and together they have three grown children, Nicholas, Tyler, and Kylie. In his spare time, John enjoys hunting, fishing, hiking, photography, and exploring the great outdoors. He is a volunteer coach and board member for the Missouri River Clay Target League and Head Coach of the Legacy High School Trap Shooting Team. John also loves to travel and spend time around a campfire with family and friends.

"I would like to express sincere gratitude with being chosen as the State Engineer for the Department of Water Resources," said Paczkowski. "Water is a great passion of mine and I am honored to continue serving North Dakota, working with the dedicated staff at the DWR, and collaborating with the Governor's Office, Legislature, and the water community."

# DEPARTMENT OF WATER RESOURCES EXPANDS USAGE OF TECHNOLOGY INITIATIVE



In 2017, the State Water Commission, known today as the Department of Water Resources (DWR), introduced a robust technology initiative called PRESENS, (Pushing REmote SENSors). PRESENS delivers real-time environmental data from sensors located in remote locations to publicly accessible databases at the DWR. The aptly named PRESENS system is meant to convey a sense that the agency has a “presence” across the state and is continuously collecting valuable water resource data for sound scientific decision-making on water development, planning, and appropriation.

PRESENS was designed, tested, and installed by the agency's Information Technology (IT) professionals, hydrologists, and technicians. Since the inception of this innovative project, over 200 PRESENS units have been deployed throughout the state.

The Atmospheric Resource Board (ARB), a division within the DWR, recognized the state-of-the-art capabilities and powerful functionality of the PRESENS system and

began utilizing the devices in their program this fall. PRESENS units were specifically designed for ARB and integrated with a rain gauge, along with soil moisture and temperature sensors. The first enhanced sensor suite was installed near Menoken, ND, on September 1, 2021.

The agency will also use these meteorological PRESENS devices to expand and enhance data collection in the ARB Cooperative Observer Network (ARBCON). ARBCON is comprised of nearly 500 volunteer observers who record daily rainfall, hail occurrences, and snowfall amounts at their home locations.

The rain gauge installed in the PRESENS unit is a “tipping bucket” system, which registers a hundredth of an inch every time the bucket tips. When rainfall is measured by the gauge, data will be transmitted to the DWR database every 15 minutes. Soil moisture and temperatures will be collected at depths of 2, 4, 8, 20 and 39 inches, consistent with international standards. Soil data will be transmitted once daily, or coincident with rainfall data when rain is detected. Acquiring precipitation and soil data is exceptionally useful and will assist in forecasting potential spring and summer flooding events.

A second ARB PRESENS site was installed at the Kenmare Airport on October 12. This is the first of several sites planned to enhance data collection in the Mouse River Basin. ARB is collaborating with the North Dakota Silver Jackets Program, National Weather Service, U.S. Geological Survey, Souris River Joint Board, U.S. Fish and Wildlife Service, and others in this effort. Additional sites will be installed once field work begins again in the spring of 2022.

For more information regarding PRESENS, please visit the DWR's website at [www.dwr.nd.gov](http://www.dwr.nd.gov).