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State Water Commission Supports Beneficial Aquifer Recharge Project with the University of North Dakota and the Department of Water Resources

At the April 12 State Water Commission (SWC) meeting, the Department of Water Resources (DWR) was approved for \$165,000 in state cost-share assistance in support of a Cold Region Hydrologic Modeling Project (Project) that is being completed in cooperation with the University of North Dakota (UND).

The Project will provide a methodology for predicting snow melt runoff and aquifer recharge through modeling that considers water equivalent trapped in snowpack. These analytical tools will help the DWR better understand how North Dakota's aquifers respond to snowmelt, which in turn, could help identify additional irrigation opportunities in the state. Collection of detailed snow surveys, soil moisture measurements, data analysis, and preparation of aquifer vulnerability maps will all be part of this cooperative effort.

"The Cold Region Hydrologic Modeling Project that was approved at Tuesday's Water Commission meeting is a vital step forward in enhanced aquifer management and continued long-term sustainable appropriation of available water resources in North Dakota," said DWR Director, Andrea Travnicek. "We're looking forward to working with UND on this forward-thinking research effort, and the exciting potential of the results."

The Oakes aquifer is in Dickey County in southeastern North Dakota and is approximately 163 square miles in area. Currently, many of North Dakota's shallow ground water systems are approaching full appropriation. This vastly impacts the state's ability to permit additional water withdrawals from these systems. The DWR has explored various options to address these challenges and Cold Region Hydrologic Modeling (CRHM) is one of those options - providing the agency with future predictive tools that can be used for water appropriation during wet-cycle conditions.

"The College of Engineering and Mines at UND is committed to applying the technical expertise of our faculty and students to serve the needs of the State of North Dakota. Dr. Mahmood is a recognized expert in hydrologic modelling and I'm excited that he will be working closely with the Department of Water Resources on this important project," said Brian Tande, Dean - UND College of Engineering & Mines.

For more information, please visit the Department of Water Resources' website at www.dwr.nd.gov.

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