WATER COMMISSION CELEBRATES ONE-YEAR ANNIVERSARY OF NDRAM

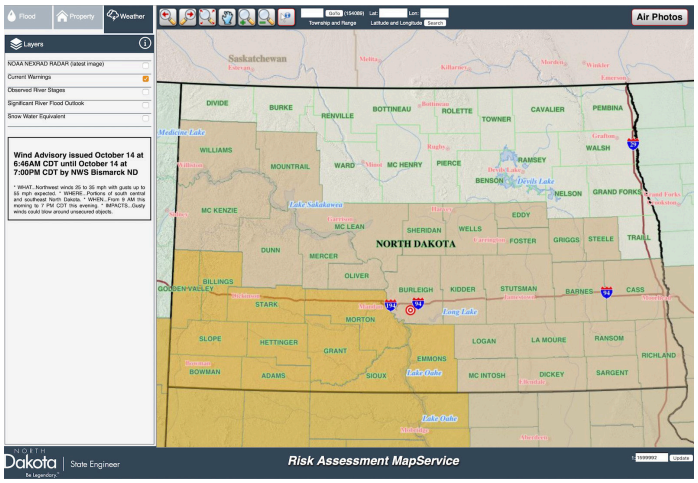
The milestone project, North Dakota Risk Assessment MapService (NDRAM), was successfully launched in October 2019. NDRAM is a tool designed by the Water Commission that allows users to visually display current flood risks, both non-regulatory floodplains from Base Level Engineering (BLE), and effective regulatory floodplains from FEMA's National Flood Insurance Program (NFIP).

NDRAM is a collaborative effort with FEMA that utilizes the Water Commission's existing technology and infrastructure and is located on the agency's MapServices, which is freely available for access and use. In 2018, FEMA completed a BLE effort for every county in North Dakota – the first state to do so. The BLE dataset is a quality flood risk assessment that created Two-Dimensional (2D) engineering models and other flood hazard data.

NDRAM was specifically designed as a one-stop shop resource for flood risk information. It is a robust and state-of-the-art technology that provides over 47 terabytes of data that is available to download and is offered free of charge to the public. NDRAM furnishes residents and communities the opportunity to be well informed about potential flood risk, and can thus be more proactive concerning resiliency actions.

In order to generate public awareness about NDRAM, several training opportunities and demonstrations of the platform were provided by State Water Commission staff members at various events. The technology was first presented at Governor Burgum's 2019 Main Street Initiative Summit and was also featured in the Governor's flood preparedness campaign. Governor Burgum emphasized to North Dakotans that where it can rain, it can flood. He encouraged residents to utilize the tool and to also purchase flood insurance through the National Flood Insurance Program (NFIP).

Additional outreach was also offered to several constituents, including: City of Mandan and Morton County staff, Emergency Management Institute – Cooperating Technical Partners, LaMoure County Flood



New capabilities and updated features were recently added to NDRAM to provide additional data and functionality.

Preparedness event, Morton County Water Board, and to North Dakota Floodplain Administrators. Demonstrations of NDRAM were also furnished to elected officials, emergency managers, and community leaders.

"User feedback is crucial in developing a service such as NDRAM," said Laura Horner, North Dakota Risk MAP Coordinator. "If there is a way to simplify the data viewer, enhance functionality, and explain features to help create proficient end-users, we want to utilize that input to improve the tool and ultimately help citizens create informed and educated decisions involving potential flood risk."

The tool provides water surface elevations, flood depths, and the ability to download engineering model data, depth and velocity grids, and print customized maps. NDRAM also allows concerned residents to type in their address (house number, zip code, and county) to get parcel-specific information. The address look-up feature leverages the state's 911 location and address information.

Additional innovations were recently added to NDRAM in order to enhance the platform's benefits and functionality. While utilizing the NDRAM tool, the user can now access a weather tab that displays current warnings, observed river stages, significant river flood outlooks, and snow water equivalent. These additional features provide increased capabilities, expertise, and information for residents, emergency managers, and community leaders seeking flood information.

In addition to the newly added features, a NDRAM tutorial video has been produced to assist and support users. The nearly ten-minute video provides a step-by-step guide on how to navigate NDRAM and aid in accessing the data. You can view the tutorial video at www.swc.nd.gov. Special thank you to staff from the Federal Emergency Management Agency, North Dakota Department of Health and the Water Commission for their collaboration, input, and efforts regarding the completion of this video.

Furthermore, NDRAM was recently recognized by Cooperating Technical Partners (CTP) Collaboration Program for a Best Practices Case Study. The Best Practices Case Study noted that NDRAM, throughout the past year, has provided beneficial flood risk information for the entire state of North Dakota and complimented three noteworthy components of the tool. It has: 1) provided a statewide BLE dataset; 2) enhanced engagement and outreach; and 3) created data sharing in a user-friendly format.

Overall, NDRAM provides an invaluable service that will help generate informed decisions regarding flood preparedness and will continue to increase public awareness.

"Throughout the past year, the NDRAM viewer has serviced the citizens of North Dakota in many ways and has proven to be exceedingly beneficial. It's an incredible asset and can provide flood risk information to the entire state," noted John Paczkowski, Interim State Engineer. "NDRAM can guide residents in preparation for future flood outlook, aid in making educated real estate investments, and assist in planning community mitigation actions."

For more information or to access NDRAM, please go to ndram.swc.nd.gov, or contact Laura Horner, North Dakota's Risk MAP Coordinator at 701-328-2759 or lmhorner@nd.gov.

Laura Horner, North Dakota Risk MAP Coordinator, provided BLE training and introduced NDRAM at various events in 2019.