



# WATER RELATED CONSTRUCTION ACTIVITY — 2022 SEASON UPDATE —

The Department of Water Resources (DWR) has a construction crew of three full-time employees that assist during emergencies and partake in planned and unplanned maintenance and upkeep on a number of projects. The 2022 construction season produced another eventful year for the crew, starting with emergency flooding issues that dominated the early part of the season and ended with the completion of several scheduled projects. The following is a recap of construction activities for this year.

## BOURBANIS DAM FLOOD FIGHT

In early May, Bourbanis Dam in east Cavalier County experienced a flood event that damaged its auxiliary spillway and put the dam at risk of failure. To combat the flood-waters, the DWR dispatched two pumps to the dam, which were first on the scene. Construction personnel set up the two six-inch pumps and established intake and discharge points. The pumps were operational for approximately a week until larger pumps could be obtained, but remained on-site as back-ups. In addition, Governor Doug Burgum dispatched the ND National Guard to help with the emergency. One-ton sandbags were airlifted into place as part of the effort to combat the threat. In the end, a major catastrophe was avoided thanks to the collaborative effort involving DWR, ND National Guard, Department of Emergency Services, federal agencies, and county officials.



## DEVILS LAKE WEST END OUTLET

Damage to the West End Outlet and pumping infrastructure was identified in January. Construction crews from DWR and Garrison Diversion were sent to the scene to evaluate the cause of the damage. It was determined that metal shards from the intake screen had been ingested into the pump system. Crews worked over the course of several months to remedy the issue. Eventually, the pump system was brought back online, but additional corrections may still need to be implemented. Currently, funding for extraordinary maintenance, such as this, is being discussed to increase readiness for potential issues at the outlets in the future. DWR will also continue to work with the Devils Lake Outlets Advisory Committee regarding outlet operations.



## BOWMAN-HALEY DAM

Located southeast of Bowman in Bowman County is the Bowman-Haley Dam. In recent years, it was discovered that a low-level pipe for the release structure had become dislodged, rendering it unusable. Efforts are underway to remedy the issue. The job requires the broken pipe to be removed from the reservoir and then repair the pipe on land. An underwater construction contractor would be required to perform the challenging reinstall of the pipe. Currently, the DWR is searching for an underwater contractor and hopes to complete the reinstallation before freeze-up.



## USGS ASSISTANCE

The DWR has a working relationship with the United States Geological Survey (USGS). Data sharing is a key component of this relationship, thus the DWR has a vested interest in helping maintain USGS data collection systems throughout the state. When needed, the DWR crew readily aids in the repair or maintenance of various USGS stations, making sure critical data continues to be gathered. The DWR crew provided repair assistance on a number of occasions across the state in 2022.

## NAWS PROJECTS

The Northwest Area Water Supply (NAWS) project is well underway, developing the infrastructure to deliver Missouri River water to communities and rural areas in northern North Dakota. While the vast majority of the construction is under contract, DWR's construction crew plays a pivotal role in assisting key projects. In August, DWR crews assisted in the location and investigation of a buried pipeline, contributing to seeding and remediation efforts after excavation.



## KULM-EDGELEY DAM

Located in LaMoure County, the Kulm-Edgeley Dam serves the area as a fishing and recreation destination. In recent years, a malfunctioning low-level outlet system has caused issues for the North Dakota Game and Fish Department as they attempt to manage outflows to help maintain healthy fish populations. The DWR, in collaboration with the Game and Fish, visited the dam to perform an internal flushing operation to clear the intake and make it operational. The intake is essential for supporting healthy oxygen levels in the reservoir.