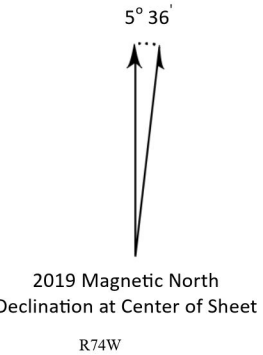


Bismarck 100K Sheet, North Dakota

Water	Ice/Dirt	Composite
Open Area	Bismarck	State
Edge	Center	Whole

Adjoining 100K Maps



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2026

Landslides identified on this sheet were mapped from stereo pairs, black and white 1:20,000 scale aerial photographs flown in 1957 and 1965 by the United States Department of Agriculture (USDA). Additional data sources include digital orthophotography from the USDA National Agriculture Imagery Program (NAIP) flown in September 2024 and the North Dakota Geological Survey LiDAR Map Series, which compiles raw data flown in November 2020 to May 2024 from the North Dakota Department of Water Resources.

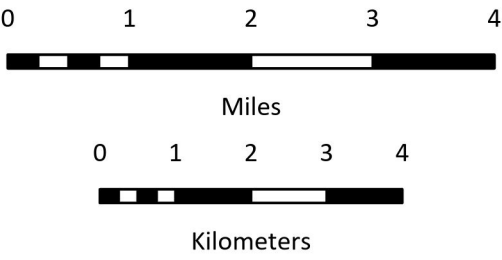
Areas of recently active landslides (Qlsa) mapped on this quadrangle were identified from changes between the 2015 and 2024 LiDAR elevation datasets observed on an elevation subtraction raster. Noise introduced from data precision (typically within a foot between the LiDAR datasets) is removed on this raster by excluding the signal from elevation change in the +/- 1 foot interval. Geologists interpret areas of landslide movement in geomorphic context (typically a decrease in elevation near a landslide headscarp paired with an increase in elevation downslope near the toe) and delineate those areas within the larger landslide dataset. Landslides not identified as recently active may have also experienced movement relatively recently, but did not show discernable signs of movement during the 2015 to 2024 window between LiDAR collects.

EXPLANATION

- Qlsa** **Landslide Deposits**
Landslide areas showing movement between 2008 and 2021.
- Qls** **Landslide Deposits**
A mass of material that has moved downslope. Includes earth flows, slumps, and areas of soil creep.
- Qml** **Abandoned Mine Lands**
Surface may be underlain by voids created by the underground mining of lignite. Collapse of the mine voids often creates sinkholes or depressions at the surface.



Scale 1:100,000



Mercator Projection
Standard Parallel 46°30'0"N

North American 1983 Datum
Central Meridian 100°30'0"W



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