North Dakota Geological Survey
100K Series: Blfd - l4

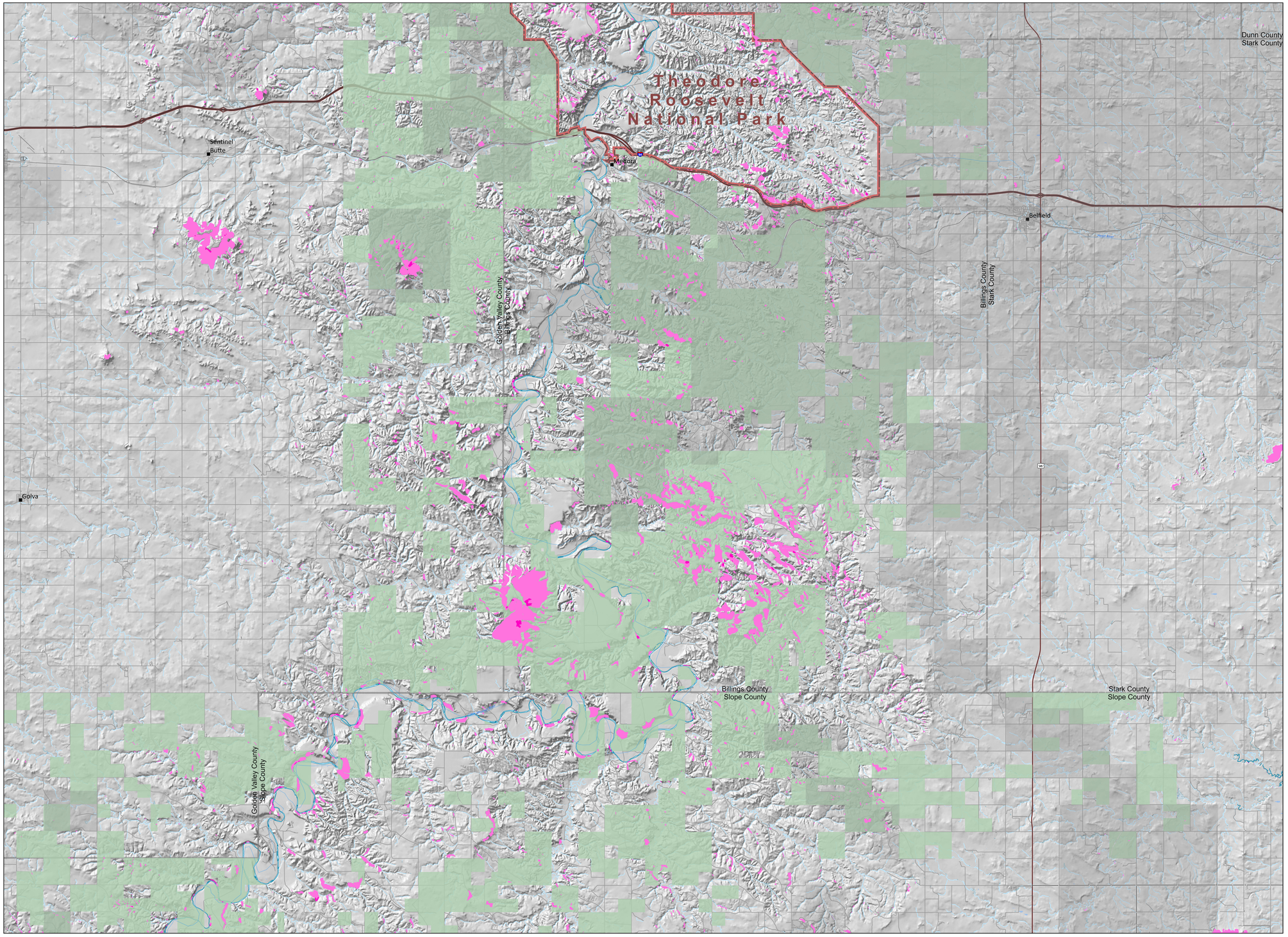
Belfield 100K Sheet, North Dakota







Edward C. Murphy, State Geologist
Nathan D. Anderson, Director Dept. of Mineral Resources



Christopher A. Maike
Benjamin C. York

2025

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 August 2024 and the North Dakota Geological Survey LiDAR Map Series, which compiles raw data flown in October to November 2021 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 2021 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 2021 window between LiDAR collects.

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.

Oil/Gas Field

National Grasslands

Scale 1:100,000

0 1 2 3 4
Miles
0 1 2 3 4
Kilometers

Mercator Projection
Standard Parallel 46°30'0"N
North American 1983 Datum
Central Meridian 103°30'0"E

This material is based upon work supported by the U.S. Geological Survey under Grant No. G24AP00421.

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Geological Survey. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Geological Survey.