

Preliminary Map of Landslides in Wyoming

Compiled by
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Modified from
 Case, J.C., and Hallberg, L.L., circa 1990, Unpublished
 1:24,000-scale preliminary landslide maps in Wyoming.

EXPLANATION

Landslides—Landslides are one of the most common geologic hazards in Wyoming. The largest landslide complex in the state is near Cody. The Carter Mountain landslide is more than 5 miles wide and up to 20 miles long. Landslides occur every year in Wyoming, however most occur in remote areas and do not typically cause damage. When landslides do occur in populated areas, they can cause significant damage and loss of life. Recently a few notable landslides, such as the Double Draw in Teton County and Dry Sandstone (State Highway 70) in Carbon County damaged Wyoming roadways, disrupting transportation and local communities.

There are five basic types of landslides that occur in three types of material. Falls, topples, slides (rotational and translational), lateral spreads, and flows can occur in bedrock, debris, or earth. While individual landslide types can occur in nature, most landslides are complex, or composed of combinations of basic types of landslides. Most landslides mapped in Wyoming are complex.

The generalized landslide distribution in Wyoming is shown on the map. Most of the mapped landslides occur in mountainous areas with levels of precipitation significantly greater than in the state's basins.

Local geology, geologic structures, hydrology, and precipitation are the primary contributors to landslides. Human activities such as road construction and surface water diversion can also have an effect on the occurrence of landslides.

BASE MAP SYMBOLS

- ★ Capital
- ☆ County seat
- Town
- Interstate highway
- US highway
- State highway
- County or other road
- County boundary
- Wind River Reservation boundary
- Yellowstone National Park boundary
- State boundary

BASE MAP REFERENCES

- Bureau of Indian Affairs, 2005, Boundaries—Indian Lands, Raw Data Release, December, 2005: National Atlas of the United States, at <http://nationalatlas.gov/>.
- National Oceanic and Atmospheric Administration, 1985, Digital magnetic declination: National Geophysical Data Center, at <http://www.ngdc.noaa.gov/geomagmodels/struts/calcDeclination>.
- Stoeser, D.B., and others, 2005, Preliminary integrated geologic map databases for the United States—Central states—Montana, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Iowa, Missouri, Arkansas, and Louisiana: U.S. Geological Survey Open-File Report 2005-1351, 18 p.
- U.S. Census Bureau, 1996, Cities, towns, census designated places of Wyoming at 1:100,000, at <http://wyl.wygis.org/wygeolib/catalog/main/home.page>.
- U.S. Census Bureau, 1997, Wyoming roads at 1:100,000, at <http://pincy.wygis.uwoyo.edu/data/transportation/road100k.zip>.
- U.S. Geological Survey, 2002, The National Elevation Dataset: Photogrammetric Engineering and Remote Sensing, v. 68, no. 1, at <http://ned.usgs.gov>.
- Wyoming Geographic Information Science Center, 1997, Internet mapping service—Basemap data for Wyoming: Spatial Data and Visualization Center, at <http://wyl.wygis.org/wygeolib/catalog/main/home.page>.

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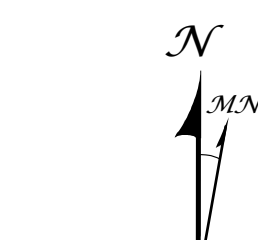
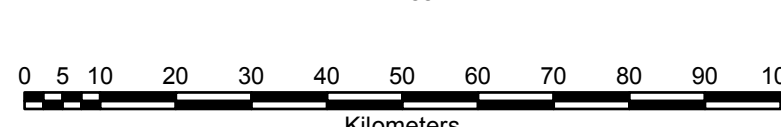
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Map Projection: Wyoming Lambert Conformal Conic
 False Easting: 500000, False Northing: 200000
 Central Meridian: 107.5 degrees West
 Standard Parallel 1: 41 degrees North
 Standard Parallel 2: 45 degrees North
 Latitude of Origin: 41 degrees North
 Linear Unit: Meter
 Horizontal Datum: North American Datum of 1983 (NAD 83)
 Ellipsoid: Geocentric Reference System 80

Base hillshade derived from USDA/NRCS - National Cartography & Geospatial Center 10-meter Digital Elevation Model (DEM), 2000; azimuth 125°, sun angle 45°, vertical exaggeration 2

Scale 1:1,000,000



Magnetic Declination = 10° 17' E
 at center of map
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