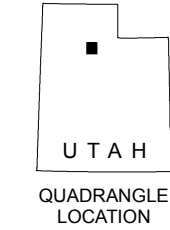


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COLLAPSIBLE SOIL SUSCEPTIBILITY MAP OF THE MAGNA QUADRANGLE, SALT LAKE COUNTY, UTAH
by
Jessica J. Castleton, Ashley H. Elliott, and Greg N. McDonald
2011

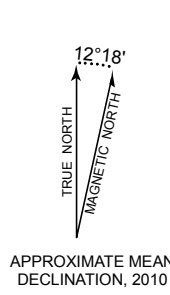
Base from USGS Magna 7.5' Quadrangle (1999)
Hillshade derived from 2-meter bare earth LIDAR (2006) data from the Utah Automated Geographic Reference Center
State Geographic Information Database
Projection: UTM Zone 12
Datum: NAD 1983
Spheroid: Clarke 1886

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7	8	

ADJOINING 7.5' QUADRANGLE NAMES



EXPLANATION

- Not Mapped** – Areas not mapped due to significant and ongoing human disturbance.
- COLLAPSIBLE SOIL SUSCEPTIBILITY CATEGORIES**
- Highly Collapsible Soil** – Unconsolidated geologic units containing highly collapsible soils with reported collapse values greater than or equal to five percent.
- Collapsible Soil A** – Unconsolidated geologic units having reported collapse values between three and five percent. In areas continually subjected to saturation or flooding, collapsible soils are unlikely.
- Collapsible Soil B** – Unconsolidated geologic units lacking geotechnical collapse data, but for which other geotechnical information (chiefly low unit weight and moisture content) are indicative of materials susceptible to collapse. In areas continually subjected to saturation or flooding, collapsible soils are unlikely.
- Collapsible Soil C** – Unconsolidated, young geologic units (Holocene) for which no geotechnical data are available, but which have a genesis or texture susceptible to collapse. In areas continually subjected to saturation or flooding, collapsible soils are unlikely.
- Collapsible Soil D** – Unconsolidated older geologic units (Pleistocene) for which no geotechnical data are available, but which have a genesis or texture susceptible to collapse. Because of their age, these deposits have experienced greater exposure to natural wetting and may have already experienced collapse, and/or the deposits may have become cemented by secondary calcium carbonate or other soluble minerals, making them less susceptible to collapse.
- Bedrock** – Areas unlikely to be susceptible to collapse.

USING THIS MAP

This map shows the location of known and suspected collapsible soil conditions in the Magna quadrangle. The map is intended for general planning purposes to indicate where collapsible soils may exist. We recommend performing a site-specific geotechnical/geologic-hazard investigation for all development in the Magna quadrangle. Site-specific geotechnical/geologic-hazard investigations can resolve uncertainties inherent in generalized mapping and help ensure safety by identifying the need for special foundation designs, mitigation, and/or construction techniques. This map is not intended for use at scales other than 1:24,000, and is designed for use in general planning to indicate the need for site-specific geotechnical/geologic-hazard investigations. The presence and severity of collapsible soil along with other geologic hazards should be addressed in these investigations. If collapsible soil is present at a site, appropriate design and construction recommendations should be provided.

For additional information about collapsible soil susceptibility in the Magna quadrangle, refer to Chapter 7 of the accompanying report.