LIQUEFACTION SUSCEPTIBILITY MAP OF THE MAGNA QUADRANGLE, SALT LAKE COUNTY, UTAH

by

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EXPLANATION

Not Mapped - Areas not mapped due to significant and ongoing human disturbance

LIQUEFACTION SUSCEPTIBILITY CATEGORIES

High - Geologic units that consist of well-sorted sands, silty sands, and gravels where depth to groundwater is less than or equal to 50 feet (15 m) below the ground surface.

Moderate - Geologic units that consist of moderately to poorly sorted sands and gravels where depth to groundwater is less than or equal to 50 feet (15 m) below the ground surface.

Low - Geologic units that consist of moderately to poorly sorted sands and gravels where depth to groundwater is greater than or equal to 50 feet (15 m) below the ground surface.

Very Low - Geologic units that consist of poorly sorted sands and gravels where depth to groundwater is greater than 50 feet (15 m). Liquefaction susceptibility is considered very low in these units because of their textural characteristics, age, and/or degree of cementation.

Not Susceptible - Bedrock units not susceptible to liquefaction.

USING THIS MAP

This map shows areas of liquefaction susceptibility in the Magna quadrangle. The map is intended for general planning purposes to indicate where liquefaction might be a problem so that areas of potential liquefaction can be identified for further investigation. This map is not intended to replace site-specific geotechnical or geologic studies and could be useful for general planning purposes. Liquefaction susceptibility is determined by integrating geologic, geotechnical, and hydrogeological data. The susceptibility of an area to liquefaction is influenced by the characteristics of the ground, the depth of the ground water, and the shaking intensity from an earthquake. The map shows the areas of liquefaction susceptibility based on the integration of these factors. The susceptibility of an area to liquefaction is represented by colored areas on the map. The map is intended for use at scales of 1:24,000 or larger. The map is not intended to be used at scales smaller than 1:24,000. The boundaries of liquefaction susceptibility categories are approximate and subject to change with additional information. The liquefaction susceptibility at any particular site may be different than shown because of geologic and hydrogeological variations within the area. The map is intended to provide a general indication of liquefaction susceptibility, and further investigation is required to determine the actual susceptibility at any given location. This map is based on limited geologic, geotechnical, and hydrogeological data. The quality of the map depends on the quality of these data, which vary throughout the study area. The mapped boundaries between liquefaction-susceptibility categories are approximate and subject to change with additional information. Small, localized areas of higher or lower liquefaction susceptibility may exist anywhere within the study area, but their identification is precluded due to limitations of either data or map scale. Seasonal and long-term fluctuations in groundwater levels can alter liquefaction susceptibility at any given site. The map is not intended to be used at scales smaller than 1:24,000, and is designed for use in general planning to identify areas of potential liquefaction susceptibility. For land-use planning recommendations relative to the different susceptibility categories as well as additional information about liquefaction susceptibility in the Magna quadrangle, refer to Chapter 2 in the accompanying report.