

Plate 12 of 13 Utah Geological Survey Special Study 162 Geologic Hazards of the Moab Quadrangle, Grand County, Utah



EXPLANATION

Not Mapped – Area not mapped due to significant and ongoing human disturbance.

Wind-Blown-Sand Susceptibility Categories

- High Modern sand-dune or sheet-sand deposits, either active or stabilized by natural vegetation with >50 percent sandy soil deposits. These active wind-blown deposits or reactivated formerly stabilized deposits are highly susceptible to wind erosion and transport. The moving sand may form deposits that can surround structures and bury agricultural fields and transportation corridors.
 - Moderate Mixed-unit geologic deposits for which wind was the dominant transport mechanism. These units contain a high percentage of size-sorted sand, but also contain up to 30 percent fines incorporated into the deposit due to water or gravity transport. These units are generally stable in their natural state, but may destabilize if disturbed.
 - Low Mixed-unit geologic deposits which contain a wind-blown component, but for which the wind was not the dominant transport mechanism. Water and/or gravity transport predominate in these deposits, and they may contain in excess of 30 percent fines and thin horizons of fine- to medium-sized gravel. These units are generally stable in their natural state, but may destabilize locally if disturbed. Also included in this category are older (Pleistocene) wind-blown and mixed-unit geologic deposits that have developed thick, indurated calcium carbonate (caliche) horizons over time that help to further stabilize the deposits, but which may become destabilized if disturbed.

USING THIS MAP

This map shows the location of areas susceptible to wind-blown sand in the Moab quadrangle. The map is intended for general planning purposes to indicate where sand deposits susceptible to wind erosion may exist and where site-specific wind-blown sand hazard investigations may be required. The UGS recommends performing a site-specific geotechnical/geologic-hazard investigations for development at all locations in the Moab quadrangle. Site-specific geotechnical/geologic investigations can resolve uncertainties inherent in generalized hazard mapping and help ensure safety by identifying the need for special engineering designs or mitigation techniques. The presence and severity of potential wind-blown sand areas, along with other adverse construction conditions and geologic hazards, should be addressed in these investigations. If wind-blown-sand susceptibility is present at a site, appropriate design, construction, and maintenance recommendations should be provided.

For additional information about the wind-blown-sand potential in the Moab quadrangle, refer to the accompanying report.

Little to no wind-blown-sand hazard in these areas.

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