Early recognition and avoiding areas subject to rock fall are the most effective means of reducing rock-fall hazards. The map boundaries between rock-fall-hazard categories are approximate and subject to change as new information becomes available. Simulation programs, such as the Colorado Rock Fall Simulation Program (Jones and others, 2000), can be used to estimate the zone below a source and to assess the risk of rapid downslope movement of dislodged rocks by falling, rolling, and bouncing.

Bedrock units particularly susceptible to rock fall in the study area include the Shinarump Conglomerate, the Mount Garfield Sandstone, and the massive, pervasively jointed, cliff-forming Navajo Sandstone. Rock falls are particularly prevalent and result from the rapid downslope movement of dislodged rocks due to weathering, gravity, and earthquakes. Although not well documented, rock falls in Utah appear to occur more frequently during spring and summer months. This is likely due to spring snowmelt, summer cloudburst storms, and large daily temperature variations.

Historical earthquakes of M 5 or greater have caused rock falls. Sources of earthquake ground shaking that may trigger rock falls include past earthquakes and those expected from historical and recent seismicity. Sources of earthquake-induced rock falls include not only those areas found in the study area boundary, but also less obvious areas, which may also be vulnerable.

Recommended Requirements for Site-Specific Investigations Related to Rock-Fall Hazards to Protect Life and Safety:

| Occupancy Category1 | Structures Except Those Listed in Structures Except | 0.5%90% 
|---------------------|---------------------------------------------------|-------
| Emergency | Basic | High | Extreme |
| Life Safety | Property Damage | Loss of Life | Loss of Property |
| Residential | Commercial | Industrial | Public Safety |


