

Hazard / Definition

Landslide:

Downward and outward movement of loosened rocks or earth down a hillside or slope.

Description / Frequency

Landslides can occur either very suddenly or slowly. They frequently accompany other natural hazards such as earthquakes, floods or wildfires. Most landslides are single events, but more than one-third are associated with heavy rains or the melting of winter snows. In areas on hillsides where the ground cover has been destroyed, landslides are probable because there is nothing to hold the soil.

Historical Score: 2

The highway in Boulder Canyon below Sugarloaf Mountain was closed at least six times during the months immediately following the Black Tiger Fire in July of 1989. Mud, boulders and other debris slid down onto the highway after the fire destroyed all the ground cover, leaving nothing to hold the soil in place. One home was destroyed, and two others were damaged. No lives were lost.

A mudslide occurred at the base of Flagstaff Road during a period of heavy rains in May and June of 1995. Approximately 6 homes were threatened from the slide.

Potential Score: 2

Landslides become disastrous when development of land occurs in areas where there is a vulnerability of landslides. Increased housing development in certain terrain alters soil or hillside configurations and aggravates the instability of many slopes. As more development occurs in these vulnerable areas damages will increase unless controls are established. There has been no loss of life at this time from landslides in Boulder County, but damages have occurred to structures, and highways.

Impact on Life and Property:

Immediate dangers from landslides are the destruction of property and possible fatalities as rocks, mud, and water slide downhill or downstream. Other dangers include broken electrical, water, gas, and sewage lines.

Mitigation Options / Strategies

- C Develop and enforce zoning codes in marginal areas to reduce the amount of property damage and possible loss of life.
- C Forest management programs which include planting of ground cover or retaining walls to prevent runoff during periods of heavy rain or snowmelt. This should be done especially following wildfires where the ground cover has been completely destroyed and there is nothing to hold the soil.
- C SCC Communications and US West partnered together for a warning and evacuation system for Boulder County. It is called the Emergency Warning and Evacuation Service (EWES) and is part of the Emergency Preparedness Network (EPN). The existing 9-1-1 database of telephone numbers and addresses is used in combination with detailed maps to help determine the geographic boundaries of an area impacted. The system is capable of calling up to 2,000 numbers in one minute. It is designed to deliver recorded information to endangered people in advance of a disaster or any major event. Messages can be delivered in various languages, as well as to pagers or the Emergency Alert System (EAS). Multiple floodplain areas can be handled during a single event with priority given to the area most impacted.