Introduction

Landslides are a common geologic hazard in Maine. Although they usually result in no or minor casualties or damages, they are known to cause significant economic damage. Information about the location, type, and extent of landslides in the area can help to protect against future incidents. This guide provides guidance on landslide susceptibility and characterization under the effects of gravity, and also the hazards that result from such movements. It is intended for professionals and the general public to be aware of landslide activity. This information is intended to decrease the potential for damage to property by landslides, and to assist individuals, local governments.

Erosion and susceptibility

Critical information of the area includes the location of past ground movements, the type of landslides that occurred, and the area underlain by the fine-grained sediments. "When a weak point on a slope fails, the slide moves inward into the slope face, forming a curve around the original point of failure. The slide moves as a unit and, when it is large enough, it may travel far, carrying with it a large volume of material. One example is the Brunswick slide, a large landslide that occurred in Brunswick, Maine in 2007. The slide traveled about 1.5 miles, carrying with it an estimated 60 million cubic yards of material." [Photo 1]

When a clear image of the slope is available, the slope can be visually assessed to determine if an area is susceptible to landslides. Areas that are susceptible to landslides are those that have steep slopes, where soil, a road surface, or vegetation have moved apart. Cracks may appear in the surface or the slope face, forming a curve around the original point of failure. Evidence of ground motion and instability.

Mitigation strategies

This map can be used to identify areas with historical landslide activity. The primary geologic factor influencing landslide activity is the steepness of the slope. Areas underlain by fine-grained sediments have a higher risk of landslides than other sediment types. Existing maps of the surficial geology show that a majority of earth movements occur in fine-grained sediments such as clay, silt, and mud, which are prone to move by erosion. When a weak point on a slope fails, the slide moves inward into the slope face, forming a curve around the original point of failure. The slide moves as a unit and, when it is large enough, it may travel far, carrying with it a large volume of material. One example is the Brunswick slide, a large landslide that occurred in Brunswick, Maine in 2007. The slide traveled about 1.5 miles, carrying with it an estimated 60 million cubic yards of material." [Photo 1]

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