

steep slopes

Steep slopes are generally defined as land with a slope angle of 20% or greater for a minimum of 30 feet horizontally. These slopes are becoming increasingly popular for home sites as the valleys and flat lands in Utah are lost to development. These steep slopes may make for dramatic home sites, but they also pose problems. Steep slopes are prone to natural disasters, are often expensive to build on, and expensive to maintain. Most likely, they are of aesthetic value to the community below as well (City of Nanaimo 3 Dec. 2004).

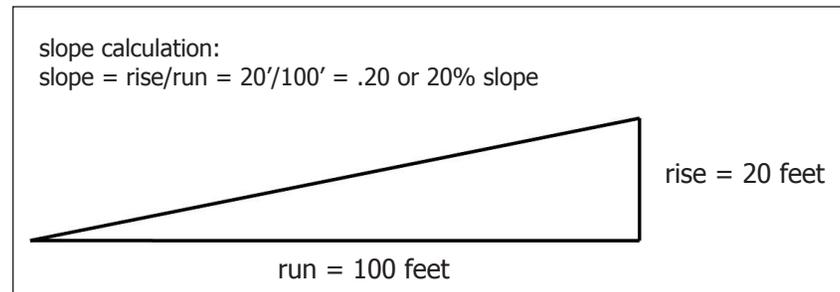
Slope failures, erosion, or avalanches may not be as spectacular as tornadoes or earthquakes, but they are usually more widespread. Financial losses from these mass movements of earth and snow are costly. They include not only the direct costs associated with property damage, but also indirect costs such as loss of tax revenues, reduced real estate values, and degraded water quality (Gray 1996). Also, development on steep slopes is often susceptible to wildfire and may be expensive to defend if necessary.

Construction on steep slopes is costly. The costs associated with the cut and fill, earthwork, retaining walls, erosion prevention, etc., is often prohibitive. In cases where cost is not an issue, the maintenance of roads and utilities must be addressed. Cities and towns may be left holding the bill for maintenance costs unless prior arrangements with developers and homeowners have not been made.

It is hard to place an economic value on the aesthetic value and visual quality of steep slopes. If development is to be allowed on steep slopes, care should be taken not to disturb natural scenic features such as cliffs or rock outcroppings. The design of buildings should compliment the natural surroundings and should be placed as to minimize the visual impact (City of Nanaimo 3 Dec. 2004).



Houses built on steep slopes are prone to damage from slope failure.



references and further reading:

City of Nanaimo. September 2002. Steep Slope Development Permit Area Guidelines. 3 Dec. 2004. <http://www.city.nanaimo.bc.ca/uploadedfiles/Site_Structure/Development_Services/Engineering_and_Environmental_Services/Environmental_Services/SSguidelines.pdf>

Gray, Donald H. and Robbin B. Sotir. Biotechnical and Soil Bioengineering Slope Stabilization. New York: John Wiley & Sons, 1996.