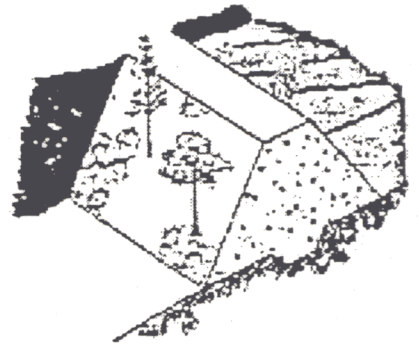


FACT SHEET

VEGETATION / EROSION CONTROL ON DAMS

Problems with Trees and Brush Near Dams

While trees and brush may be aesthetically pleasing, give off oxygen, and provide cooling shade, the growth of woody vegetation on and near dams, including the downstream toe area, can lead to serious problems. Sudden uprooting of trees by strong winds can result in the movement of a relatively large amount of embankment material. This in turn can lower the crest of the dam, reduce the effective width of the dam, and facilitate seepage. Falling trees can also cause structural damage to concrete, steel, stone, or timber structures.

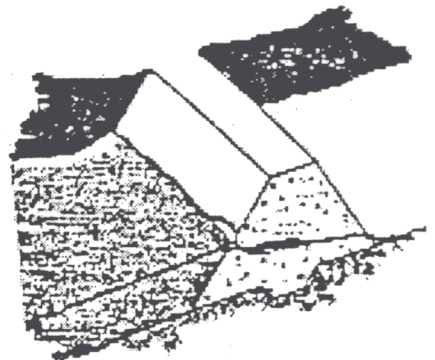


The root systems of trees can also be a potential hazard by allowing seepage pathways to develop through a dam. Trees eventually die and their roots decay and rot. The root cavity leaves a void within the dam through which water can enter and flow. This can ultimately lead to failure of the dam by piping (internal erosion).

Brush and woody vegetation prevents the visual inspection of dam surfaces. Sinkholes, animal burrows, seeps, and other irregularities can be obscured by trees and brush. Woody vegetation can also cause excessive shade which in turn can hinder the growth of a sturdy, dense grass coverage. These affected areas are more prone to surface erosion.

Erosion Control

Grass cover is a very effective and inexpensive means to prevent the erosion of embankment surfaces. The stems and root systems of grasses tend to trap fine particles of soil, thus inhibiting the migration of these particles. A good grass cover provides an excellent means against erosion due to runoff caused by rains, and can protect the embankment during limited overtopping.



Grass cover should be routinely cut to provide a surface that can be easily inspected. Trees and brush should never be allowed to grow on or very near to a dam! Many older dams have very large trees growing on or near them. Removal of trees, roots, and brush should be done under the direction of a qualified professional engineer knowledgeable about dam safety and maintenance.

For more information contact:

Department of Environmental Conservation
Bureau of Flood Protection, Dam Safety Unit
50 Wolf Road
Albany NY, 12233-3507
(518) 457-3157

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<http://www.dec.state.ny.us> on the Internet.