



United States
Department of
Agriculture

Soil
Conservation
Service

Columbia,
Missouri



Urban Conservation Tips



Diversions

Description

Diversions are channels built across hills. They may have berms on their downhill sides. Diversions intercept runoff water and carry it to stable outlets such as storm sewers or protected natural channels. Redirecting the runoff protects downhill areas from soil erosion and excessive wet conditions.

Applicability

Diversions intercept surface and shallow, subsurface water flows, control runoff and erosion on urban areas and construction sites, divert water from buildings and other improvements, enlarge or reduce watersheds draining into ponds, function as grass filter strips and channel water away from gullies and critically eroding areas.

Construction Tips

When constructing diversions, consider the following construction tips to ensure that your diversions will operate properly.

- * Provide a stable outlet - such as grass, concrete or other non-erosive surfaces - for diversion of water.

- * Apply lime and fertilizer according to a soil test, then seed and mulch the area. Contact your local University of Missouri Extension Service office for soil test information.

- * Take aesthetics into consideration before construction.

- * During the construction of earthen diversions, compact the soil well.

- * If necessary, stockpile the topsoil and spread it over graded areas to make it easier to re-establish vegetation.

- * Set on contour or grade so that the channel behind the diversion is stable.

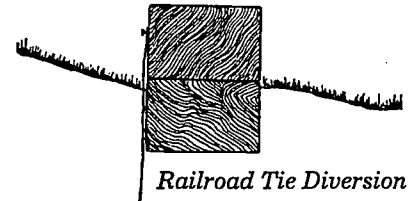
Railroad Tie Diversions

- * One railroad tie should be set at

least halfway into the ground. Additional height is attained by adding railroad ties to the top.

- * Additional rows of railroad ties should be spiked so that they are not moved by flowing water.

- * Seams or joints between railroad ties should be sealed to keep out water.



Railroad Tie Diversion

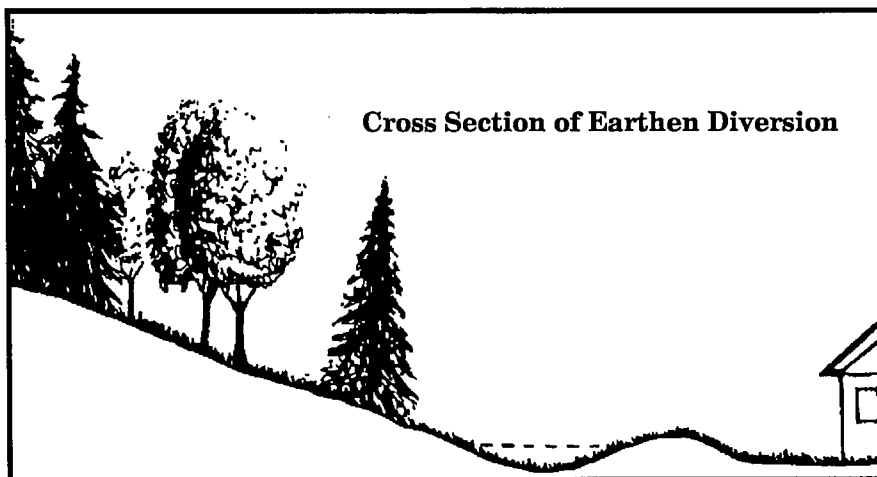
Maintenance

Sediment should be cleaned out of diversion channels to keep the diversion working.

Vegetative linings common to all diversions require mowing, spraying and other practices to maintain the desired plant cover, and to control woody vegetation that may choke or obstruct channels. In addition, maintaining the correct plant cover in the channel will help prevent channel erosion and "piping" erosion from developing along woody plant roots.

Where To Get Help

For more information about diversions for urban areas, contact your local Soil Conservation Service office. It is listed in the telephone directory under "U.S. Government, Department of Agriculture."



Cross Section of Earthen Diversion

