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from the CCIA Conservation Committee

Plantings diminish soil erosion

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The recent rains make us think of soil erosion, as we see the runoff taking soil into the washes. Soil erosion occurs wherever water — either rainfall or runoff — hits bare earth.

The cardinal principle of preventing erosion is to have the grounds as completely covered as possible with growing vegetation, or with some substitute. It is this fact, that makes us deplore the blading off of property to build.

In planning your property remember rapidly moving water will scour the soil, and wash it down to a lower level. You can divert it away from areas where it might damage — remembering that lines that lead water directly downhill give it maximum speed and cutting power.

Areas that carry concentrated runoff need to be protected with rocks, diversions, terraces or drainage ditches. Cross-slope designs are better than up-and-down hill ones. Bench terraces with intervening banks protected by vegetation or retaining walls are often the most practical treatment for steep slopes. The more shrubs and plants in these cross-slope designs or terraces, the greater will be their holding power.

Ornamental plantings not only beautify home grounds but are the most practical of erosion-control measures. Once plants are established, their roots often extend farther into the ground than the stems grow above the ground, really holding the soil.

Windbreaks of hedges, shrubs or trees not only give privacy, and prevent soil erosion, but attract birds and other wildlife by supplying food, nesting places and shelter. Shrubs shade the ground to cool it.

Before we all moved to the desert and built our homes, the rain fell evenly over the ground. The trees, shrubs and small plants kept the water from washing to some extent. Some of the rain was absorbed by the plants, and more soaked into the ground. The large washes show runoff water can behave in sometimes violent ways. It will take the way of least resistance and make washes. Our built-up areas have had much of the original surface soil removed, or covered with raw material. The traffic of builders' equipment and human feet has further compacted the soil and deprived it of its original capacity to absorb water.

Consequently, runoff from built-up areas may be much more than it was 20 years ago. The problem is to dispose of this excess runoff with the least damage to your own property and that of your neighbors.

If a slope is so steep that water scours down the entire slope, terraces at intervals will intercept the runoff. Leaves, seeds and other small debris will be caught at the terrace edge. Many of these seeds may propogate and grow. They will then assist in holding back water that comes pouring down.