Intro to Permaculture How Trees Affect the Watershed Video Transcript

Music

So let's look at our watershed map again and talk about what happens when we deforest the upper watershed. More than 50% of a tree is made up of water. So, if you think about it, a forest at the top of a mountain is basically a lake of water. Water is transpired and joins with cloud water in the atmosphere and that forest acts like a giant sponge, absorbing rainfall as it slowly seeps down through the watershed.

When we clear cut the forest and remove that sponge, the water no longer has all that vegetation with it's roots and rich soil to slow it down and allow it to soak into the ground. The water can race quickly and erode soil down through the watershed.

So when we remove the vegetation, we change the duration it takes for the water to get from the top of the watershed to the bottom of the watershed. Where before it may have taken a drop of water one year to get from the top to the bottom of the system, in a degraded landscape it may take only a week, or just days or hours. With all that water moving so quickly, much less water absorbs, water tables drop, springs dry up, vegetation can't survive, and desertification can occur.