

Intro to Permaculture Understanding the Watershed Video Transcript

Music

The way water flows from mountains to rivers is through a watershed, in the shape of a tree. Water falls on the land and forms the headwaters of streams. These streams come together with other streams and combine to form creeks and eventually rivers in the trunk of the tree. When those rivers meet the ocean, they spread back out like roots where estuaries enter a water body.

It is important to understand where your site is located on this watershed tree. If you are located by a major river at the trunk of the tree, then you have a lot of land above you, with possibly large amounts of water draining off that land and soils being deposited in the valley bottoms.

If your site is high in the watershed, you are dealing with smaller flows of water and more shallow soils, which have eroded over time to fill in the valleys below. Every location within the watershed has its assets and liabilities; one is not better than the other. But you would employ different strategies in uplands, lowlands, mountains, foothills and valleys. So first you need to understand where you are within the watershed tree.

It's also important to understand that the entire landscape is made up of watersheds. The ridges and high spots divide watersheds, and each watershed becomes a unit of management. This is because what happens in the upper part of the watershed affects what happens down below.

The parts of the watershed are connected because water runs from the top to the bottom, so what happens upstream has consequences downstream. For example, if you collect water up here, then you can use gravity to feed it anywhere down below. If you remove all the vegetation up here, then soil and water will quickly cascade off the land and could cause flooding down below.

So it's really important to understand where you are located within the watershed tree when you're taking the time to figure out where you are and what forces are working on your site; your design should unfold effortlessly.