

Trees and Water



from the **TREE CITY USA®**
BULLETIN

As the population of our nation grows and cities expand, the care of our finite water resource is becoming increasingly important. Trees play an integral role in the future quality and quantity of the surface water and groundwater that sustain us.

The intricate relationship between trees and water is increasingly important and represents two precious resources in need of careful management.

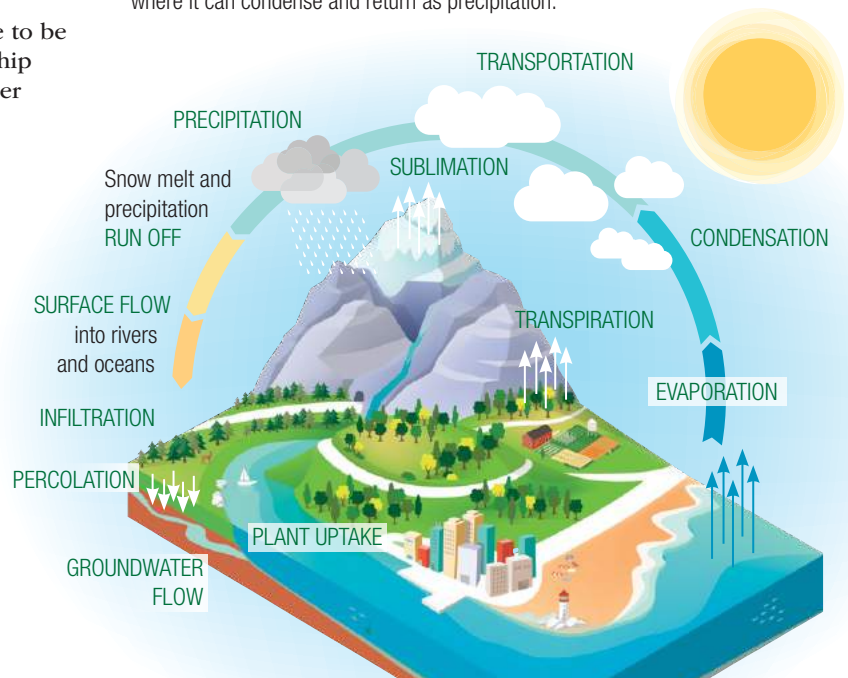
A soils professor once told his students, “Don’t ever let me hear you call soil ‘dirt.’ Soil is not dirt. That thin layer of soil that covers our earth is essential to our very existence.” So it can be said of water — another resource we sometimes take too much for granted. Certainly there is plenty of it. As most schoolchildren know, oceans cover 71 percent of the earth’s surface. Unfortunately, that salty mass represents 97 percent of the world’s water supply, leaving only 3 percent fresh and drinkable.

Trees and water have an inextricable relationship and one that deserves the attention of tree boards, urban foresters, and anyone else concerned with the sustainability of our communities. George Perkins Marsh, considered by some to be the father of environmentalism, recognized this relationship and began sounding the alarm in 1874, just two years after the first Arbor Day. In his book, *The Earth as Modified by Human Action*, Marsh warned of what happened to nations in the Mediterranean region when they stripped the trees from their land. His writing laid

the foundation for forest reform in America and the laws and agencies that have protected our land and waterways since the dawn of the 20th century.

Today there is renewed concern. At least 36 states anticipate freshwater shortages in the near future. Climate change and mega-wildfires threaten our forests that provide surface water to more than 180 million Americans. Importantly, urban trees are part of the water picture, but they present us with a paradox. Our community trees use and need water, but they also contribute to the water cycles that make rain and provide a cost-effective way to help purify waterways through stormwater retention.

Trees play an important role in the cycle that restores moisture to the atmosphere, where it can condense and return as precipitation.



ALSO READ ABOUT ...

- How trees help make rain and control stormwater runoff
- How to obtain a beautiful poster that shows the differences between communities with and without trees in yards, parks, and along streets
- A predictive computer model
- How to water trees efficiently
- ... and more



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