



Riparian Areas

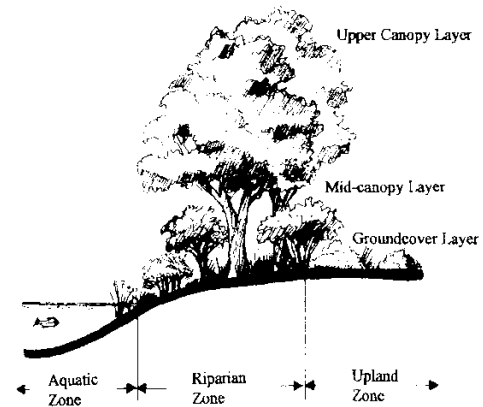
Riparian areas or zones are

“Vegetated ecosystems along a water body through which energy, materials, and water pass. Riparian areas characteristically ... are subject to periodic flooding and influence from the adjacent water body. These systems encompass wetlands, uplands, or some combination of these two land forms” (EPA 2001, p. 12).

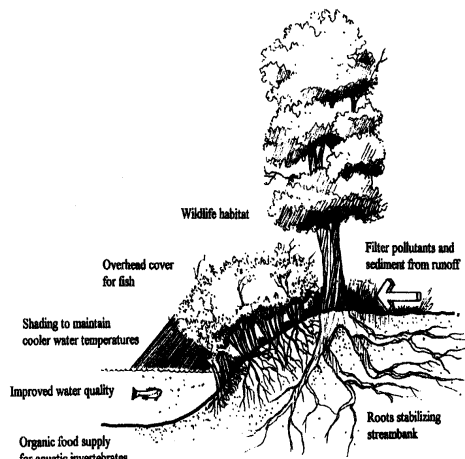
Riparian areas are shaped by the dynamic forces of water flowing across the landscape. Flooding is a natural and necessary component of riparian areas (for instance, cottonwood requires floods to regenerate).

Riparian vegetation is growing on or near the banks of a stream or other body of water on soils that exhibit some wetness characteristics during some portion of the growing season (IWRRI, p. 77).

Streambank stability is a function of a healthy riparian area. When a stream and riparian system is degraded, its resiliency to natural disturbances is diminished. *Riparian area health* and streambank stability is a reflection of the conditions in the surrounding landscape (Streambank Bioengineering Guide 1998, p. 7).



Source: Practical Streambank Bioengineering Guide 1998, p. 2.



Source: Practical Streambank Bioengineering Guide 1998, p. 3.

Riparian areas provide many important benefits:

- *Water quality protection* – reduction of the impacts of nonpoint source pollution, which occurs as a result of runoff from urban and rural areas (agriculture, livestock grazing, timber production, urbanization land use). Riparian vegetation traps sediments and nutrients from surface runoff and prevents them from entering the aquatic system.
- *Flood control* – riparian areas absorb floodwater that is then slowly released over a period of time, minimizing flood damage.
- *Streamflow maintenance* – woody riparian vegetation and debris help to maintain summer stream flow by increasing the water storage capacity of the soils.
- *Water temperature* – riparian vegetation maintains cooler water temperatures by shading the water surface. Temperature influences the rate of nutrient cycling and dissolved oxygen.
- *Wildlife habitat* – riparian corridors are productive wildlife habitats.
- *Recreation benefits* – riparian areas are attractive for recreation activities, such as trail hiking, rafting, kayaking, fishing and hunting.

References:

National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution. Draft. EPA 841-B-01-001. June 2001. 199 p.

Idaho Streamwalk: Learning How to Monitor Our Streams. Idaho Water Resources Research Institute(IWRRI). 80p.
The Practical Streambank Bioengineering Guide. 1998. USDA Natural Resources Conservation Service. Aberdeen, Idaho. 67 p.