

The riparian zone is any land that adjoins, directly influences, or is influenced by a body of water. A riparian zone includes the land alongside creeks and rivers, the gullies and dips which sometimes run with surface water, and areas surrounding lakes or wetlands on floodplains which interact with rivers in times of flood.

Riparian zones support a high diversity of plant and animal life. Many native plants are found only in riparian areas.



Values of riparian zones

Healthy riparian zones protect our waterways; they are ribbons of life that connect, sustain and enrich communities and environments.

The following are the key areas:

- **Water quality:** they trap sediments, nutrients and contaminants from surrounding land.
- **Bank stability:** root systems help to stabilise banks and reduce erosion. Leaf litter and large woody habitat accumulated beneath riparian vegetation helps to slow down runoff.
- **Food supply:** provides food for aquatic and terrestrial animals.
- **Habitat:** trees have hollows that form breeding, roosting and hiding places. Large woody habitat (snags) provide shelter, feeding and breeding grounds for fish. Understorey species provide refuge for smaller creatures.
- **Temperature:** plants buffer and shade the water, reducing temperature which is a controlling factor in the life cycle of many aquatic insects, frogs and fish.
- **Aesthetics:** healthy riparian zones are peaceful and beautiful. They provide attractive areas for recreational activities and promote income via ecotourism.

Threats to riparian zones

The major threats to riparian zones include:

- Removal of riparian vegetation due to urban development and agriculture
 - Uncontrolled stock access
 - Cropping and irrigation in close proximity
 - Prevalence of invasive pest plants and animals.
- These can lead to erosion, compaction, habitat loss, reduced water quality and a decrease in biodiversity and recreational activity.

Managing riparian zones

Waterways are 'arteries', supporting the land around them. Riparian land is the 'last line of defense' for aquatic ecosystems. Riparian zones can be managed by fencing and installing off-stream watering points to restrict stock (especially cattle). Restricting stock access has many benefits including minimising over-grazing, erosion, compaction, weed invasion and nutrient inputs. Treatment of invasive pest plants and animals, and the repair of erosion gullies also help. When combined with revegetation, the riparian zone can be enhanced by increasing the buffer width and restoring depleted vegetation structures. Urban stormwater management and implementing environmental flows are also vital strategies.