

Freshwater environments provide an abundant range of habitats, both in-stream and on land; ranging from gravel river beds, reeds and snags to the various levels of native vegetation beside a waterway.

Riparian habitat varies along a waterway due to factors such as topography, geology, water flow and human impacts. Riparian habitat quality can be rated by completing a habitat survey.



Types of riparian habitat

Within a riparian zone, habitat health is often discussed in terms of five major areas:

- **Verge vegetation:** refers to the land up to 30m from the water's edge. Verge vegetation consists of native trees, shrubs and grasses.
- **Bank vegetation:** refers to the native trees, shrubs, rushes and grasses growing on the bank.
- **Bank erosion & stability:** refers to the incidence of scours, undercutting & bare banks prone to erosion.
- **In-stream cover:** refers to snags, logs, rocks and aquatic plants that may be beneath, on the surface or protruding above, the water.
- **Riffles, pools and bends:** refers to the variety of aquatic environments including shallow areas where water rushes quickly over rocks and debris (riffles) and deeper areas (pools). Bends and islands create further habitat diversity.

Values of riparian habitat

A waterway with a variety of habitat types is likely to sustain a diverse range of plants and animals. When streamside vegetation is degraded, it provides less protection, deteriorates water quality and impacts upon aquatic and terrestrial flora and fauna.

- **Verge vegetation:** provides protection for waterways by reducing the impact of surrounding land use and provides a safe corridor for wildlife.
- **Bank vegetation:** provides food and shelter for fauna and provides shade, organic matter and large woody habitat and bank stability.

- **In-stream cover:** provides aquatic animals with food and breeding sites. It shelters them from predators and fast moving water. Plants absorb nutrients and produce oxygen whilst rocks provide places for fish and invertebrates to feed, hide and lay eggs. Protruding snags provide roosting sites for birds.
- **Riffles, pools and bends:** provide variety within the stream. Riffles aerate the water; bends reduce the flow rate whilst pools create deep water habitats providing refuge areas for aquatic animals when water levels drop.
- **Islands:** slow down water flow and provide a safe haven for birds, frogs & small mammals.

Rating riparian habitat

The condition of the vegetation in and around a stream provides an indication of stream health. It can be visually assessed and rated according to criteria describing features such as cover, diversity and frequency.

See habitat assessment.