

The Three R's

These are the prioritised actions for ecological restoration as defined by an array of experts. Not only will action in this order preserve the most important ecological processes effectively, but they will create the most cost-effective results. A site vegetation quality assessment is necessary to establish which of the below 3 options or combinations of options are appropriate.

1 - Retention of Indigenous Vegetation

Remnant indigenous vegetation is much more complex than we will ever be able to document or understand. The array of species within natural vegetation doesn't just include the easily seen plants and animals but of course, many cryptic organisms, such as geophytes, mosses, lichens, fungi, soil flora and fauna etc. The habitat features that wildlife populations require are often present in remnant native vegetation but are usually absent in degraded sites and revegetation efforts. High quality remnants can be encouraged to recruit species outwards into surrounding species-poor degraded areas. These areas will provide indigenous seeds or other propagation materials for complementary plantings. Retention is all about weeding and follow-up weeding. If you pull the weeds out, the bush comes back. Identifying and retaining existing indigenous vegetation must be the highest priority because it is the least expensive and most effective way of preserving indigenous flora and fauna bio-diversity and their habitats.

2 - Restoration of Indigenous Habitats

This phrase refers to sites where some or minimal remnants of native vegetation remain. Restoration implies that an initial framework or structure of native vegetation is present to build around. The management responses to restoration objectives will range from encouraging natural regeneration through weed control to selective revegetation. The remnant soil-stored seed should not be underestimated. Each regenerating indigenous seedling can reasonably be costed at the same price as a planted tube. Again, weeding and follow-up weeding is the key. The healthier the vegetation community and the less disturbance that occurs, the less susceptible it will be to weed invasion

3 - Revegetation of Indigenous Habitat

Replacing lost indigenous habitat sometimes has to be done from scratch but this is the most difficult, expensive and least effective option for restoring indigenous ecosystems and should be the absolute last resort. Typically, for better or worse, this option features herbicide, woody mulch and plant tube stock and is effectively a garden bed approach. Mulch can prevent many long-lived indigenous seeds surviving in the soil from germinating and has a very low habitat value. Plant stock should be sourced from the local gene pool and this usually requires expert seed collection, propagation and a long lead time. Long term weeding of revegetation sites, avoiding herbicides due to possible off-target effects on soil flora, fungi and fauna, without mulching is a time-expensive commitment. A given vegetation community can consist of scores of plant species alone and propagation and planting cannot hope to create this diversity