

CASE STUDY - BEAUMONT COMMON

Making nature conservation work in an urban setting.

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Beaumont Common is a 4.9ha reserve in an affluent residential area managed by the Burnside Council. It was established as a recreational reserve when the village of Beaumont was laid out in 1843.

Typical of the Adelaide Plains, the original natural vegetation on Beaumont Common existed only as a degraded and impoverished vestige. To conserve this relict vegetation we have developed practical conservation and management techniques which are appropriate to a residential area.

The need for engineering works to treat the deeply eroding creek gave the impetus for vegetation restoration work to begin. When work began in 1999, the original tree canopy of Grey Box (*Eucalyptus macrocarpa*) and SA Blue Gum (*Eucalyptus leucoxylon*) was largely intact. Other tree species were present either as deliberate plantings or as naturalised weeds. Irrigation and mowing had greatly depleted the ground flora and many weeds had invaded including Kikuyu (*Penesetum* sp) and Rats Tail Grass (*Sporobolus indicus*). Areas of native grass survived, mainly *Danthonia racemosa* with *Chloris*, *Themeda*, *Stipa* species. Some non-grass native flora was found also, including *Convolvulus erubescens*, *Vittadinia gracilis*, *Asperula conferta*, *Arthropodium strictum* and *Atriplex semibaccata*.

A work area was defined which incorporated the creek and two adjacent areas of higher understorey quality. The boundaries were marked with a mulched strip. This site was one of the first to be managed by the Biodiversity Unit, established in 1999 to undertake natural environment management work in Burnside. Other restoration areas in Beaumont Common have since been defined. The newest area, which includes a very large and ancient Grey Box tree, was started in early 2005.

In areas containing remnant native flora, all weeds are removed carefully by hand weeding, spot spraying or wiping foliage with herbicide. These areas may contain only mixed native grass species or they may also contain scattered non-grass species. Workers in these areas (both paid staff and volunteers) need to have very thorough plant knowledge, the experience to separate indigenous flora from weeds in degraded sites and the perseverance to do all the necessary follow-up. Planting into these areas is done sparingly to avoid competition with remnant flora and to maintain the open character of the site.

In areas consisting only of weeds, the whole area is sprayed out and subsequent follow-up continues until weed levels are very low. We apply a thin layer of clean mulch for aesthetics. We plant and sow as appropriate but only when weeds have been reduced to a very low level. Some native annuals always appear in these sprayed areas (eg *Cotula australis*, *Lythrum hyssopifolia* and *Senecio quadridentatus*) as well as natural regeneration of native tree species. All natural regeneration is recognised and conserved.

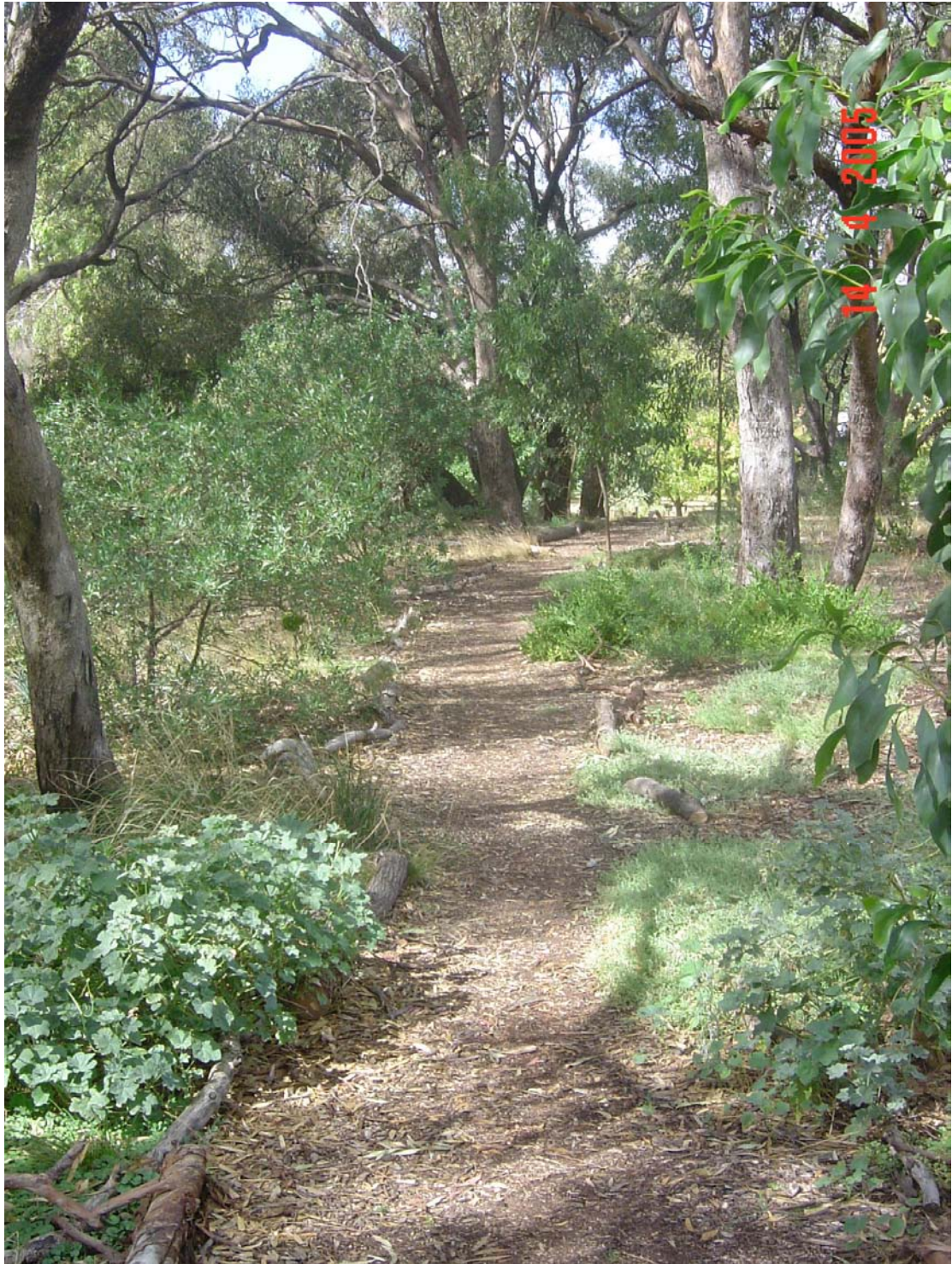
Planting is done with a view to maintenance. Areas of native grass need to be cut from time to time. We soon learned that it is best to reintroduce diverse herbaceous understorey flora only in defined areas around trees rather than to scatter it amongst native grasses.

Records are kept of all indigenous flora, whether naturally occurring or planted. If planted, we record the provenance. If species are introduced to the site, they generally come from nearby remnants in Burnside although some species come from further away, eg Grey Germander (*Teucrium racemosum*) from the South Parklands.

Some exotic specimen trees, namely Bunya Pine, Morton Bay Fig and Oak do not present a threat to the woodland. There is no intention of removing these. Other exotic trees, namely Olive, Ash, Hawthorn, Buckthorn and Aleppo Pine are weedy and are an obvious threat to native flora. The management of these must be done with a view to public perception and more education is needed. Olive and Pine are particular public favourites.

The existing irrigation system provides little flexibility. As it is not acceptable to the public to allow the vegetation to dry off in summer, the irrigation system is set to provide deep and infrequent watering. The irrigation has made plant establishment easy and it keeps the flora looking fresh. But it also makes weed eradication difficult. A more flexible irrigation system would be preferable in an urban nature site.

After 5 years of work, areas of Beaumont Common have been transformed from a typical urban park of trees over mown and irrigated grass, to a diverse naturalistic setting which conserves all of the surviving native flora and provides habitat for many more. This has required a long-term commitment to careful and skilled restoration work and to ongoing management to satisfy the requirements of an articulate urban population. This demonstrated commitment has engendered a high degree of public support for the vegetation work at Beaumont Common.



Beaumont Common – informal path and understorey development



Beaumont Common – western restoration area contrasting with traditionally managed kikuyu grass.



Beaumont Common – remnant trees and restored grassland