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Title: Project: Client: AWC Ref: Date: Bio Links - South

GreenWay Biodiversity Strategy Ashfield Council 3-11071 20.10.12



Figure 5-4: Catchment and Beyond

5.5 Bio-link Treatments

The GreenWay, Cooks River, Hawthorne Canal, and lateral drainage lines provide the best opportunities to create environments that are primarily in function of corridors with the adjacent major parks, the Dibble St waterhole, and smaller parks, forming islands with streets forming terrestrial linkages to these core ecological areas.

There are no published specific guidelines for the distance between habitat islands that applies to all species. Scientific papers relating to this subject generally focus on target species. However, the results from these studies are surprising. As an example, studies into the movement of possums within 40m-160m wide corridors between areas of bushland left by loggers showed little or no use by the possums. This is because possums have a range based around a centre point which may cover 2ha. The corridors provided by the forestry were long and linear so animals had to cover a greater distance from a central point. The retained habitat areas were inadequate for the species requirements and so they vacated these areas. This is one example representative of the impacts of reducing functional habitat for individual species.

Structural diversity is important to biodiversity, especially in urban areas. A variety of trees, shrubs, and groundcovers provide habitat and food for a variety of wildlife. Built structures, including rockeries, log piles, stormwater pipes, and vacant areas under houses, also provide habitat and protection for wildlife and wildlife can be attracted to urban areas by feeding or the provision of nest boxes. Treed linkages in urban areas provide connectivity in the upper canopy for certain fauna species and can overcome spatial barriers such as roads. Shrubs, grasses and herbs also provide suitable conditions for species but with a lesser degree of connectivity given the urban setting. The allocation of bio-linkages in addition to community involvement provides the best opportunity to create ecological communities within the urban catchment.

Parks that can support complex vegetation assemblages are a vital component of urban biodiversity. As a general rule, large parks are better than small ones because they provide more habitat and inner areas are buffered from human disturbance. Large parks also afford space for populations of large trees, where many individuals tress may be required to maintain a healthy population.

On their own, small "pocket parks" have lower biodiversity value, because small patches of habitat are more highly disturbed, can be prone to weed invasion and are difficult for wildlife to access. However, small patches can be of use to some species and the interconnection of many small biodiverse areas can emulate many of the benefits of larger, more intact habitats. Hence, to improve urban biodiversity, large parks should be a priority, but smaller parks and other vegetated areas are also valuable as linkages or stepping stones.

The difficulty of providing all-encompassing habitat for a range of species should not be considered cause for not undertaking this work. The provision of bio-links is far more beneficial than their removal or non-existence.