
4 Creating a habitat and movement corridor

Biodiversity Objective No.1

Create a flora and fauna corridor which supports the original vegetation of the area, provides habitat, and facilitates movement and migration for a wide range of native plant and animal species throughout the GreenWay catchment.

4.1 Restoration of Native Vegetation

Management responses for the rehabilitation of native vegetation will vary according to the condition of the subject site and types of weeds and other pressures being managed. For the purpose of this strategy three primary types of restoration are assumed under the broader term of bushland regeneration – assisted regeneration, reconstruction and designed landscapes.

4.1.1 Assisted Regeneration

Assisted regeneration assumes appropriately qualified bushland regenerators or restoration practitioners employing recognised strategic weed control methods within sites with a high recovery potential. The purpose is to guide a site's ecological trajectory to recovery via strategic weed control methods and stimulating seed banks.

The assumed weed control management within assisted regeneration areas would involve works being undertaken over a 12 month to 36 month period with a sequence of works likely to include:

- 0 – 6 months – preliminary/primary weed control
- 6 – 12 months – follow up weed control
- 12 – 36 months – maintenance weed control

Maintenance does not necessarily end after 36 months. The aim is to get the site to a level of minimal maintenance. Some sites will require maintenance in perpetuity, perhaps being treated once or twice per annum.

Planting is generally not a part of assisted natural regeneration and would only be in response to observations made around vegetation structure and species representation over time. However the planting of pioneer plant species to establish a canopy of fast-establishing species will quickly encourage soil binding and canopy shade to deter weed infestation. This is likely to consist of a limited number of plant species and will not be particularly structurally complex or have high species richness. Planting of appropriate native species at a density of between one and two tubestock per square meter, initial watering and periodic follow up weeding until the native plants are sufficiently established to suppress weed growth.

4.1.2 Reconstruction

In areas where native vegetation is so degraded that assisted natural regeneration or rehabilitation alone is unlikely to be successful, reconstruction of native vegetation will be required.

This would apply where weed cover is greater than 70% of a site, native seed banks are poor, species diversity is very low and vegetation community structure is poor to non-existent.

Consistent with the definition of reconstruction, this option involves a wholesale reinstatement of the original vegetation community. The aim of reconstruction will be to recreate the system that would occur naturally onsite by planting a range of species such as native grasses, groundcovers, shrubs and trees to recreate a more natural vegetation structure. Local native plant species, i.e. plants that are indigenous or commonly found, occurring naturally within the catchment historically are to be used.

This type of reconstruction could be seen as a progressive goal at suitable locations. Restoration in this context would involve primary weeding using techniques such as cutting and painting or drilling and injecting woody weeds, scraping and painting canopy weeds such as vines. Beyond this primary weeding phase, secondary weeding will be required, possibly in combination with mulching or brush matting of exposed soils.

Planting of appropriate native species is required to recreate the site's original vegetation community with respect to species and composition. Follow up weed control and then maintenance weed control over a two to three year period is likely to be required.

4.1.3 Designed Landscape

A designed landscape response is likely to occur in residential areas where visual aesthetic plays a more important role due high use and / or proximity to existing community assets such as train stations, parks, walkways, play grounds etc. These areas have an existing landscape character and any works need to be sympathetic of this. Rather than trying to recreate a full, complex vegetation community the designed landscape should take cues from the surrounding landscape and enhance existing plantings, views and amenity.

Plants used in the designed landscape response are to be native species used in a way that complements existing plantings. Ground covers are to be planted in dense, mass plantings providing swathes of foliage and colour. Shrubs should be limited in number to maintain views for safety and be planted in groups. Shrubs should also be chosen for their flower and placed accordingly. Canopy trees are important to provide connectivity in the absence of fully stratified vegetation. Trees should be located so that at maturity the canopies touch but also so that the canopies do not interfere with existing, significant plantings or infrastructure.

4.2 GreenWay and Inner West Light Rail Extension

The corridor itself is a disused freight rail corridor currently operated and owned by RailCorp. The NSW Government is extending the light rail network from Lilyfield to Dulwich Hill. The 5.6km light rail extension to the Inner West will run from the current light rail terminus at Lilyfield, along the rail corridor, to Dulwich Hill.

A key vision for the participating Councils and community is to see an integrated cycle and pedestrian network associated with the light rail extension. Unfortunately, the NSW Government announced in September 2011 that the GreenWay shared pathway component of the project had been deferred. Councils and the community are continuing to lobby the government to secure a commitment to the GreenWay pathway. Never the less, the State Government has determined the Proponent shall develop and implement a Revegetation and Biodiversity Compensation and Monitoring Package to outline how ecological impacts will be compensated for and habitat monitored within the corridor, inclusive of Bushcare and other appropriate sites.

As part of the Major Project Application 10_0111 to the NSW Department of Planning and Infrastructure

(http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4097) conditions of this approval are stated in items B18-B37 and include;

- Revegetation and Biodiversity Compensation and Monitoring Package
- Urban Design and Landscaping
- Sustainability
- Urban Design and Stop Access Plan
- Hydrology
- Earthworks
- Waste Management
- Infrastructure Property and Utilities
- Community Information, consultation and involvement

Within the above conditions there is significant opportunity for participating LGAs to realise the biodiversity objectives for the GreenWay and the wider catchment. In mid 2012 the freight rail corridor will be vested to Transport for NSW (TFNSW) by RailCorp. It is hoped that TNSW will adopt and update the biodiversity objectives and management practices of the Biodiversity Management Plan Metro South (2006) which provides significant detail of proposed management actions and locations along the corridor.

Figure 4-1 shows the current Bushcare sites and the proposed locations of revegetation works.

Figure 4-1 Bushcare and RailCorp revegetation sites

