

# An alternative future for freeway reserves

Jenny Donovan and Rupert Dance

One of the defining characteristics of contemporary Australian cities is the way they reflect the emphasis placed on private vehicles to move people and things around. 2.5% of our towns and cities are roads and car parks etc, dedicated to that purpose. However despite the appeal of the freedom promised by private vehicles and the hoped-for economic benefits of efficient freight movement, recent years have witnessed a growing recognition that these benefits are illusory and the costs to society are much greater than previously imagined. In particular there is awareness that this approach is not ecologically sustainable or socially responsible. Furthermore there is a growing awareness that it is locking us into dependence on vulnerable and diminishing fossil fuel reserves and causing “collateral damage” of around 1400 deaths on our roads annually, with an estimated social cost of \$2,257,793 per fatality. The social cost includes loss of wages, medical bills and loss of productivity to a business and to



each family (Moore 2009).

Figure 1 Photo by 'azz', flickr CC

Freeways and by extension freeway reserves are amongst the most obvious and iconic expressions of this approach to city design. Given the typically long lead time between planning and constructing freeways (e.g. eight years for City Link freeway), many Australian cities are crisscrossed by freeway reserves. These were often designated ahead of the growth of urban areas but the intervening years has seen them become surrounded by suburbia. We recognise of course that there may be very good reasons why these reserves *should* be used as freeways, not least to get freight and through-traffic out of residential areas, however the world has moved on and priorities have changed since their designation. Consequently this article has been written to pose a question: is the development of a freeway still always the best use of this land? To help focus attention on this question and provoke a discussion this article flags some of the impacts of freeways and tentatively suggests an alternative future for these reserves that can enable them to serve their surrounding communities in different ways that better reflect changing priorities and the imperative to achieve greater sustainability.

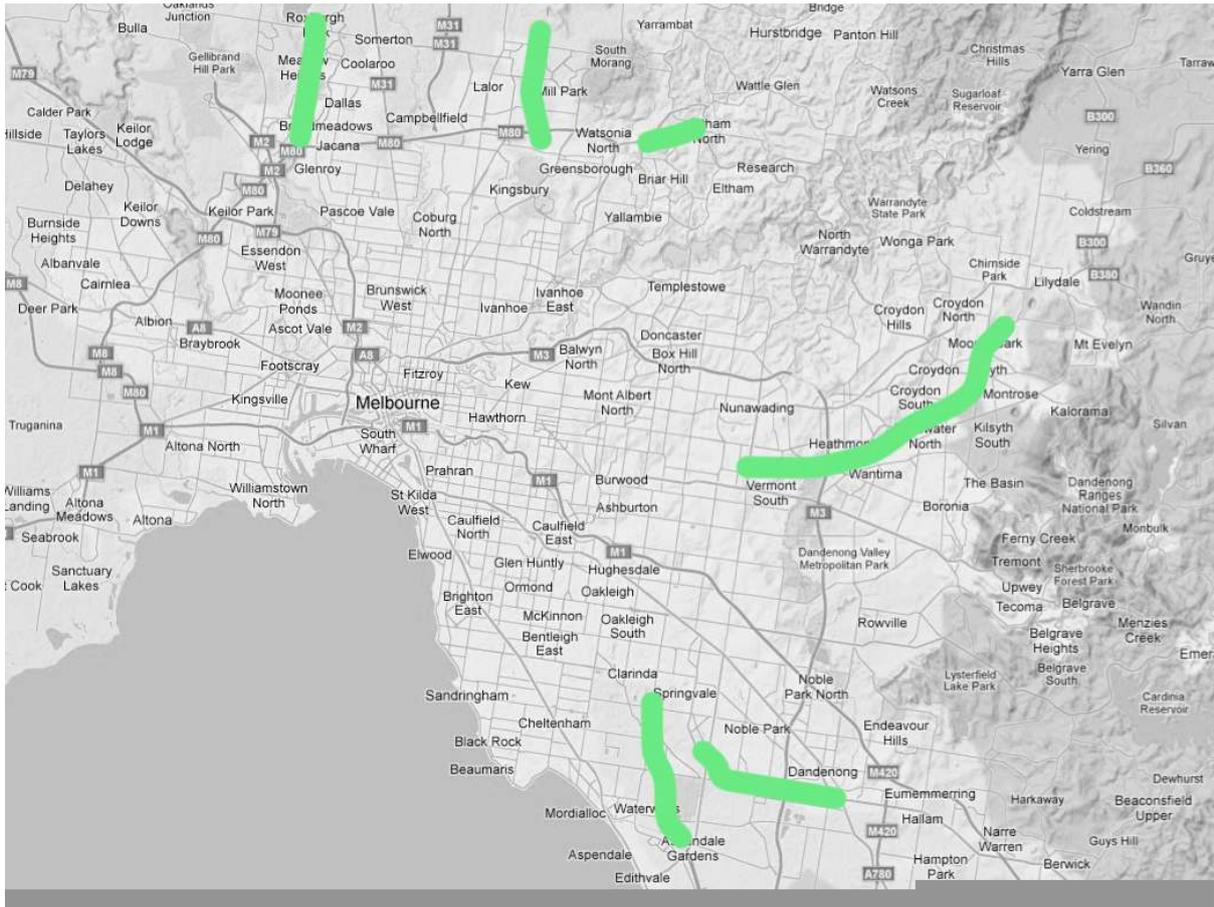


Figure 1 Melbourne's unbuilt freeways at time of writing

### Why is this an important issue?

They represent a significant amount of land. Designated freeway reserves which have not yet been developed as freeways are typically between 80-130m in width and in Melbourne alone they total approximately 50km in linear length at time of writing. This results in a land take of about 500ha, making them a significant component of our urban areas.

They create barriers between communities. The linear nature and few crossing points of reserves can make them significant barriers, even before the freeway gets built. This limits the scope for people on one side of the reserve to access the opportunities of the other side or develop an awareness of the far side of the reserve as being part of their community.

Furthermore when weighting up alternative futures for these reserves the costs of using this land for freeways needs to be considered. Typical implications include:

- *Loss of ecological value.* Freeway reserves are often aligned along the course of least economic resistance. This often sees them aligned along creek lines, which whilst of low value economically they are often of significant value ecologically and make an important contribution to the areas hydrological health. Building freeways typically causes significant disruption to these elements, compromising their contribution to the wider community and requiring additional hard infrastructure (fences, pipes etc) to protect what is left of the site's values or provide an ersatz substitute for them elsewhere. Furthermore the cuttings and

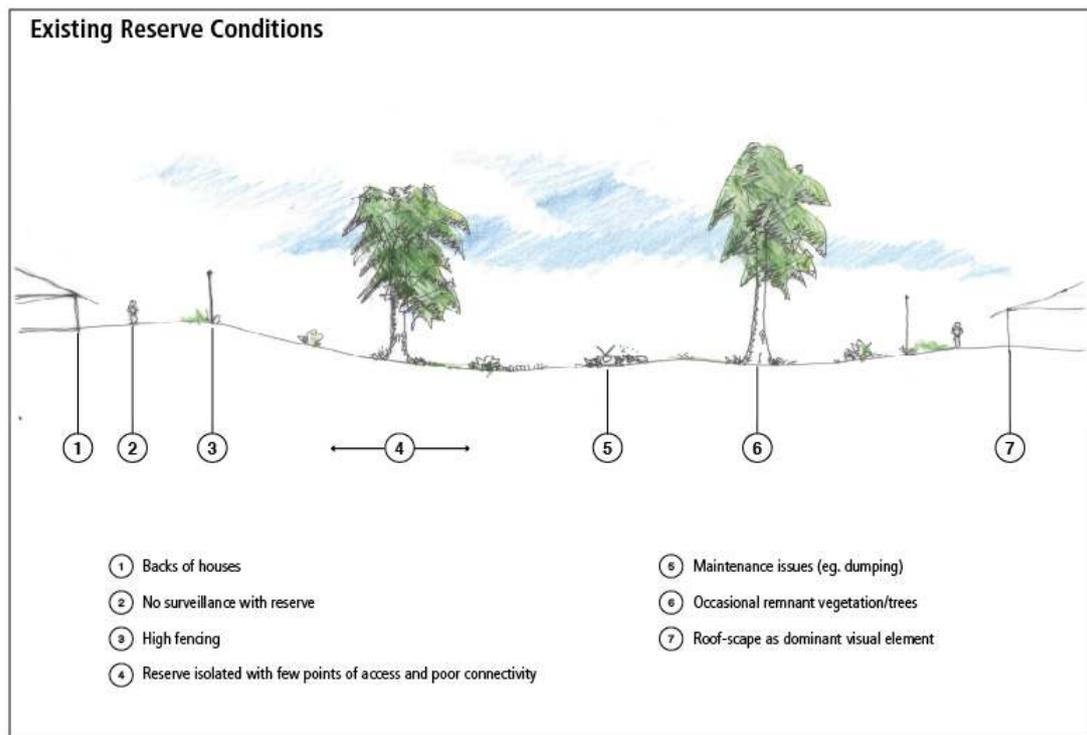
embankments that are required to allow the vehicular travel surface to be relatively unencumbered by topography often disrupt natural flows of energy such as hydrology or wind flow, and so may further disrupt local eco-systems.

- *Freeways discourage walking and active transport.* Freeways are typically mono-purpose corridors that reinforce car dependency for many, fracturing walkable catchments and alienating potential destinations.
- *Freeways are detrimental to amenity for many.* Sound barriers, bridges, lights and embankments and other peripheral engineering structures present additional problems that can radically alter people's familiar surroundings and compromise their ability to enjoy their surroundings.
- *Freeways consume huge amounts of energy to construct and use.*

Finally their size and impact mean they have great significance on the implied priorities of urban Australia's planning agenda. The symbolic value of developing them for alternative uses would provide a significant message to society in general that these priorities had changed.



Figure 2  
Typical unbuilt freeway reserve aerial perspective



*Figure 3 Typical unbuilt freeway reserve section*

## Green v Grey Infrastructure

This article is underpinned by a belief that the infrastructure that supports our cities, such as movement corridors and drainage systems, should be, where possible “green” organic, ecologically rich places that serve a number of secondary purposes rather than “grey” inorganic, heavily engineered, mono-purpose things such as pipes and roads. To this end this article puts forward a model for an alternative future for freeway reserves that emphasises green infrastructure and draws on the author’s experience of master-planning and retro-fitting urban areas, and the work of the Commission for Architecture and the Built Environment in the UK (CABE 2009).

## Greenways

Greenways reflect the change of emphasis described above, they are not appropriate along all freeway reserves but it is suggested that they are worth considering for a number of reasons. Greenways are compositions of elements within these reserves that are designed to meet a wide variety of people’s needs. They are intended to attract people into the greenway from either side, facilitate movement along and across them by foot, by bicycle and allow local vehicular access. They also support the integrity of natural systems. They are designed to break down barriers, increase local amenity, support social interaction and support ecological health. They may also provide a walkable conduit that extends the walkable catchment for destinations along them.

The actual composition of uses would vary from area to area but we envisage that they would likely include at least some of the uses described below:

Bicycle paths/footpaths

Community gardens

Community tree nursery

Children's play areas

Tennis courts/bowling clubs

Partial subdivision for houses to meet housing needs, overlook the greenway to enjoy the amenity and support passive surveillance

Rezoning of surrounding residential land to allow more people to live overlooking the greenway, support its usage and increasing passive surveillance

Drainage reserves/rain gardens

Connective nature reserves

Biofuel growing area

Composting/ recycling facility

Studios/galleries/workshops

Provision for temporary uses such as portable classrooms

Linear art trail

Local vehicular access

Places for gathering/events, etc

Below are some speculative concepts that illustrate how these uses can be integrated into a greenway that would contribute to its surroundings and provide local residents with access to opportunities that would support a desirable quality of life and minimise resource consumption.

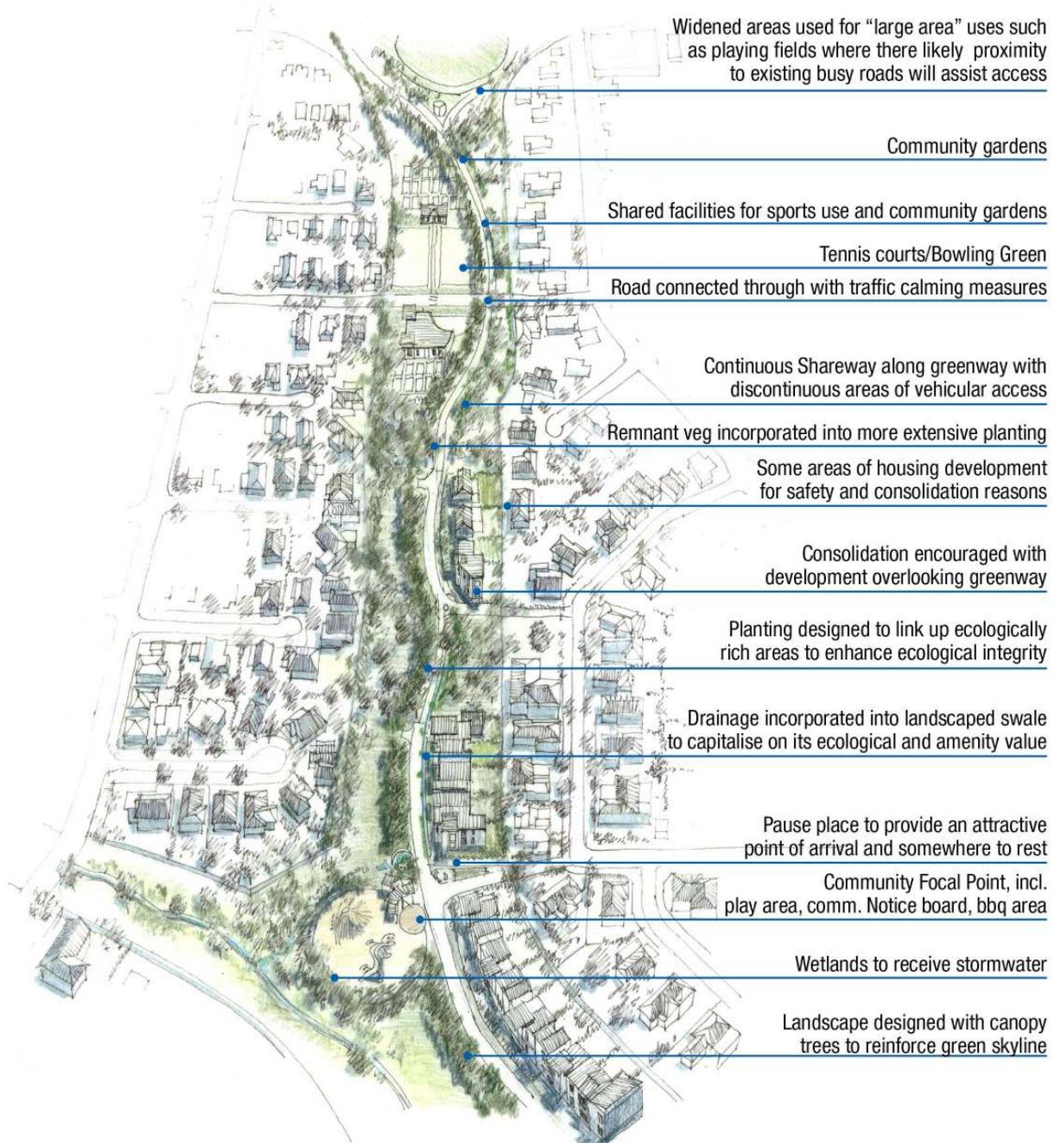


Figure 4 Typical freeway reserve developed as greenway.

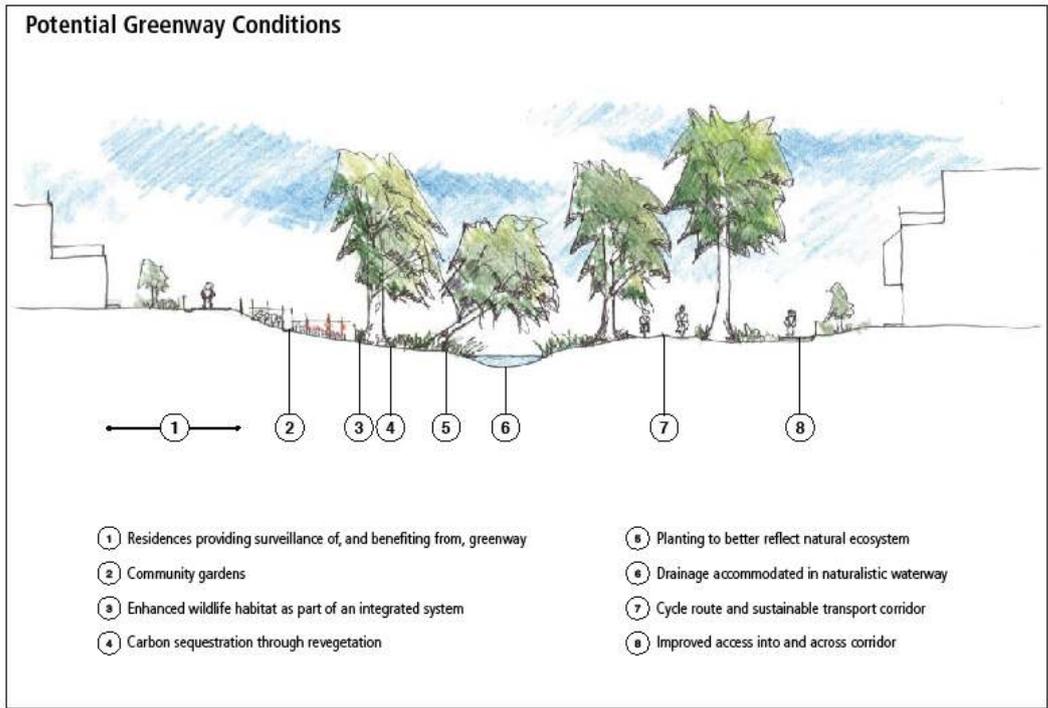


Figure 5 Section through Greenway



Figure 6 Perspective illustrating character and relationship between the different elements of a greenway.

## Limitations of this model

Greenways facilitate local access (and potentially diminish the need for some journeys by meeting needs nearby) but does little to facilitate more distant journeys. The future envisaged in this model does not answer the question about how these long distance “passing through” journeys can be made, if not by freeway.

It is assumed that in order to meet the full range of needs necessary for people to thrive they will still need to get elsewhere, to work, socialise, shop, learn etc. If building a greenway results in a freeway being built elsewhere to allow people to meet these needs then it is of only limited value. Consequently it would seem that greenways are only valid when they are in environments that provide their residents with an alternative to the car to get to around. It would seem that a prerequisite for this model is the provision of fast, frequent and efficient public transport.

Furthermore it is recognised that such a significant change in priority would politically only be palatable if it was part of a wider cultural change in society and people accepted that the economic, social and ecological costs of building freeways made them inappropriate in at least some circumstances.

## References

CABE, *turning grey to green 2009* <http://www.cabe.org.uk/sustainable-cities/green-infrastructure>

Moore 2009, quoted in <http://www.brisbanetimes.com.au/queensland/road-toll-costs-us-675-million-20091110-i75d.html>

*Jenny Donovan is a principal of David Lock Associates. She can be contacted at: [jennyd@dlaaust.com](mailto:jennyd@dlaaust.com) or on 03 96828568*

*Rupert Dance is a planner at David Lock Associates. He can be contacted at: [rupertd@dlaaust.com](mailto:rupertd@dlaaust.com) or on 03 96828568*