To The Secretary Standing Committee on Environment and Heritage House of Representatives Parliament House CANBERRA ACT 2600

Submission to: the House of Representatives Standing Committee on Environment and Heritage Inquiry into Sustainable Cities 2025

Submission from: Andrew Tidswell

14 November 2003

SUSTAINABLE CITIES 2025

This submission references the Discussion Paper "Sustainable Cities 2025" and responds to the issues raised under the seven visionary objectives listed in the paper.

1. Preserve bushland, significant heritage and urban green zones

- Providing green zones does not necessarily result in urban sprawl. Higher densities in appropriate locations reduces sprawl and can incorporate green zones to provide access to open space close to residences. Good land use planning can provide an appropriate mix of uses. Most European cities have densities many times those of Australian cities with no loss of amenity.
- Green zones if large enough can provide for passive and active recreation as well as habitat for birds and animals, especially if linked with wildlife corridors.
- It is important to preserve remnant vegetation ideally in large enough areas to be self-sustaining.
- We can ensure integration of built heritage and green zones into planned development by giving them a high value socially, environmentally and economically as we do with many built environment structures and natural environment areas presently.

2. Ensure equitable access to and efficient use of energy, including renewable energy sources.

- Better life cycle costing and triple bottom line accounting would provide a more appropriate basis for selecting energy supply options, considering a wider range of implications over a wider time frame. (eg solar photovoltaic power generation may be more economical if it reduces the need to construct a new power station or a new interstate grid connector).
- The triple considerations of greater efficiency of existing energy provisions, increasing use of renewable energy sources and reducing energy consumption are all going to be necessary to reduce demand for non-renewable energy sources in the future.
- o Transporting energy over long distances is costly and inefficient.
- Generation of renewable energy should be considered at various levels from individual residences to whole cities depending on technologies available and economics at any place and time. These will also change over time and can be changed by government policy (eg purchasing green power from domestic photovoltaic generation at a higher price than the general selling price, as is done in some parts of Europe).
- Construction and operation of buildings consumes some 60% of our energy use. Significant savings can be achieved by better design, management and retrofitting of buildings to be energy efficient. Higher efficiency standards should be required for buildings, equipment and appliances.
- Governments can provide incentives to residential and commercial developments to incorporate renewable energy generation. More importantly they can provide standards and incentives to design and develop

buildings that require less energy to construct and operate. It is possible to design new and retrofit existing buildings to be significantly more energy efficient. (eg the case studies included in the Discussion Paper and those in the Commonwealth Government's "Your Home Your Future Your Lifestyle" publication). There is no shortage of good information.

- Many European cities with similar standards of living have much lower energy consumption per person than in Australian cities. There are opportunities to create some new benchmarks for appropriate energy consumption and education programs on how these can be achieved. (eg the success of the water conservation programs in recent years).
- **3.** Establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities.
 - More local site management of water is essential and viable. The scale of management can vary from individual allotment to clusters of residences (eg Christie Walk, New Haven Village and Mawson Lakes subdivision in Adelaide).
 - Developers are increasingly keen to incorporate appropriate environmental systems for water management and the public are increasingly keen to incorporate water capture and re-use on their properties. Governments need to provide information, appropriate design standards and guidelines, and opportunities for these to be incorporated easily and safely.
 - Standards and guidelines are always important but must be practical, achievable and equitable to ensure no one is disadvantaged. We are a long way behind many other parts of the world in this, having a reluctance to provide rules and set standards, rather letting the market sort things out. Some of these issues are too important for this and need government intervention.

4. Manage and minimise domestic and industrial waste.

- The most significant way to reduce the amount of domestic and commercial waste is also the most difficult in our society; that is to reduce the consumer culture and dependence on economic growth for our standard of living. This is ultimately unsustainable and contributes to the generation of enormous quantities of packaging, consumable and short-life products and stuff that we don't really need for general well-being.
- Penalties and incentives should be introduced to reduce unnecessary packaging and disposable products. Industries that recover their products for re-use should be encouraged (eg Interface carpet tiles, which hire their product to users then take them back and remake them into new products, the so-called 'cradle to cradle' process. Similarly with some equipment manufacturers such as photocopiers).
- Some 50% of waste to landfill comes from building construction, renovation and demolition, which provides opportunities to develop less wasteful practices and greater recycling. (eg concrete and masonry now being used for road base material).
- Encourage design for disassembly and materials in their purest form (not contaminated) to make re-use and recycling easier.

• Financial disincentives for waste disposal (eg charging higher cost for waste disposal including per bin for households).

5. Develop sustainable transport networks, nodal complementarity and logistics.

- Transport planning should be integrated with economic planning and land use planning. Consolidate nodes of higher densities around transport routes and especially transport hubs.
- Encourage more effective public transport (eg Curitiba, Brazil which created special bus lanes, more regular services, cheap fares, comfortable and safe stops resulting in massive increase in patronage).
- New subdivisions should be integrated into a transport master plan for the city before being given approval.

6. Incorporate eco-efficiency principles into new buildings and housing.

- Green construction and refurbishment must be integrated into standard building practice with incentives, penalties, regulations, education and best practice models. The Australian Government should take the lead in discussions with state governments, local government and industry peak bodies.
- Eco-efficiency is starting to be seen as a marketable commodity (eg Canberra house rating).
- Impediments are most significantly the reluctance of governments to show the required leadership. Industry generally is not afraid of new requirements as long as they are equitable, and are usually looking to governments to set appropriate standards.
- Standards are easy to set through planning regulations, Building Code requirements but require strong national leadership. Present plethora of star ratings for buildings between states are not helpful and are of limited value except to reduce some of the worst practices.
- Product labelling for appliances is good and effective but to attempt the same for buildings is overly simplistic. Most of the ratings schemes concentrate just on heat transfer through the building envelope, which is only a part of the total sustainability package. Nabers and Green Star include other environmental and operational factors which give a more holistic assessment.

7. Develop urban plans that accommodate lifestyle and business opportunities.

- More of the current planning policies and practices will not lead to sustainable cities, just more of the same unsustainable sprawl. Planning models need to be developed which have sustainable outcomes (eg Smart Growth as practiced in Portland, Oregon, USA).
- Urban hubs and communities concentrated around public transport routes and especially stations is an appropriate model for new developments and redevelopments of existing cities. The same principle applies to car and truck transport with an improved hierarchy of road networks. This requires an integration of urban planning, transport planning and economic planning.

- To transform existing suburban development into more sustainable forms of community living needs a reasonable scale of renewal and either governments to take the initiative (eg SA Housing Trust redevelopments in Adelaide) or to set rules and incentives (eg Kelvin Grove development in Brisbane).
- Best practice models here and in other countries should be used to develop the appropriate planning requirements. Amcord already has many of the right requirements as does the SA Good Residential Design Guide. We are not short of information.
- To ensure urban expansion occurs as planned community developments requires governments to show some leadership and set some rules and standards. We seem to lack political will to make the best decisions for our future.

Recommendations

Set up target projects to demonstrate best practice sustainability development in each capital city working with state and local government, developer and building industry peak bodies to set benchmarks and then build showcase developments.

Develop incentives, guidelines and rules to guide best practice in all new development and redevelopment.

Provide awards for best practice new developments and redevelopments for houses, commercial buildings, new subdivisions, etc., similar to those by the Royal Australian Institute of Architects, Planning Institute and building industry.

Ensure government departments model best practice in their operations and business.

Criteria for sustainable city best practice should include:

- Include a range of densities, housing types and sizes to encourage social and age mix and support 'housing for life'.
- Include some retail, commercial and community facilities with residential to provide employment and local services.
- Integrate with transport planning and public transport routes.
- Maximise pedestrian and bicycle access.
- o Maximise on-site waste and stormwater management and re-use.
- o Consider opportunities for on-site power generation.
- Include open space for passive and active recreation and community gardens.
- Require building design to meet criteria for minimal energy consumption in construction and operation including best practice passive design principles.