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Environment and Heritage Committee  
House of Representatives  
Parliament House  
Canberra ACT 2600  
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**Submission into Sustainability Charter – key elements and achievable targets**

**1 A national strategy for sustainable Urban Forests**

A sustainable Urban Forest is defined as “*the totality of trees and shrubs on all public and private land in and around urban areas (including bushland, parkland, gardens and street trees) and is measured as canopy cover percentage of the total area, and is recognized as a primary component of the urban ecosystem*”, LGA, 2004.

The Urban Forest contributes very significant benefits (social, economic and ecological) to the community. It is most important that the extent of this asset and the many benefits that it provides to the nation is researched and recorded.

Its value can then be estimated and policy, planning, incentives and regulations developed nationwide so as to maximise the benefits it provides and ensure the sustainability of this resource for future generations.

I have worked as an arboriculturist with five NSW councils as well as in private practice and have observed the ongoing depletion of the urban forest to accommodate urban consolidation. There has been little, if any, planning or provision for the sustainability of this important asset. Although there may be, for example, Tree Preservation Orders to guide Councils, these vary from Council to Council, can be confusing and are often misused. Countless thousands of trees (public and private) in good health and condition are felled unnecessarily. Relatively few are replaced and few of these survive.

I urge that Australia develops a national strategy for the sustainability of the Urban Forest that will include research, policy, planning, implementation, monitoring and regulation to ensure comparable standards in Urban Forestry to North America and the United Kingdom.

**2 Urban Forest – work is underway, for example:**

- 2.1 Urban Forest Policy has been adopted by the National General Assembly of Local Government, 2004.  
[www.lgsa.org.au/docs/policy/environment/UFpolicyLGA.pdf](http://www.lgsa.org.au/docs/policy/environment/UFpolicyLGA.pdf) ;
- 2.2 Tarran, J., and Hewett, P.D., 2005, presented *Urban forestry and urban greening: benefits to people and their cities from well managed urban vegetation*, Urbanism Downunder Conference, Wellington NZ.  
This includes benefits of the urban forest (sociological, economic, ecological); estimates of the worth of an urban forest and canopy cover percentage targets (American Forests); conflicts encountered & solutions. Email: [phewett@ncc.nsw.gov.au](mailto:phewett@ncc.nsw.gov.au)
- 2.3 Treenet (Tree and Roadway Experimental and Educational Network) based at the Adelaide University's Waite Arboretum is a center for research and education in relation to urban forestry. [www.treenet.com.au](http://www.treenet.com.au)

### 3 Australian based research

There needs to be adequately funded research with commitment to a national strategy that will ensure well planned, systematically managed, sustainable urban forests. Areas of research should include:

- 3.1 **Benefits** provided by the urban forest (social, economic, ecological) and **effective ways to disseminate** information (3.1-3.7) to relevant service providers as well as to the Australian population.
- 3.2 Value of benefits provided by the urban forest including a **benefit / cost analysis**. This would include, for example, energy savings through the provision of shade, infrastructure savings through the 'harvesting' of storm water, community health savings through the filtration of air pollution, ecological contributions.
- 3.3 **Trials of tree species** to ascertain their tolerance to particular environmental conditions such as sealed surfaces and drought.
- 3.4 Reference to state-of-the-art overseas models as well as **consultation with recognized Australian tree management organisations** (e.g. Local Government Tree Resources Association NSW; Treenet in Adelaide).
- 3.5 **Monitoring airborne pollution**, in particular fine and ultrafine carcinogenic particles emitted in diesel exhaust.
- 3.6 **Targets for percentage canopy cover** to maximize the absorption of gaseous **pollutants in the air** and the filtration of airborne particles. This should include research into the effectiveness of particular species.
- 3.7 **Targets for percentage canopy cover** to maximize **carbon sequestration** and mitigate the effects of climate change. This should include effectiveness of particular species.

### 4 The built environment

A National Strategy would require:

- 4.1 Tree **canopy density targets** to be addressed at all stages of the planning process including the land zoning stage.
- 4.2 Urban Forest management (tree protection and planting) to be carefully planned and **integrated into every stage** of the development process.
- 4.3 Arboriculture input by an appropriately **qualified arborist** (Australian Qualification Framework – **specification of level**) at each stage of the planning and development process.
- 4.4 **Planning for ‘liveability’** i.e. cities and suburbs with clean air and shade along streets where people can walk and cycle and meet in local parks.
- 4.5 **Equity** of urban forest benefits for all suburbs.
- 4.6 Ongoing community **information campaigns** regarding the value and the benefits of the urban forest.
- 4.7 **Involvement of the community** in Urban Forest planning decisions.
- 4.8 Discussion with and **commitment from Health, Education and Planning Departments** regarding the protection and systematic management of the urban forest.
- 4.9 Discussion with and **commitment from the utilities** (roads, energy, water) on the value and protection of the urban forest. Alternatives to tree removal (e.g. properly maintaining sewer and storm water pipes, placing cables underground) to be monitored and pursued.
- 4.10 The urban forest must be **well planned, appropriately resourced, and systematically managed** to maximize the benefits and savings that it can provide.
- 4.11 **Monitoring and regulation** are essential.

## **5**      **Water**

A National Strategy should maximize the role of the urban forest e.g. storm water control; erosion control; filtration of water pollutants; maintaining groundwater levels to mitigate rising salinity.

## **6**      **Energy**

A National Strategy should maximise the role of the urban forest in reducing energy consumption e.g. air conditioning in buildings and cars and refrigeration; and maximise its role in mitigating the absorption of heat by hard surfaces (urban heat island effect).

## **7**      **Transport**

A National Strategy should utilise the urban forest to provide shade in car parks (reducing volatile toxic chemicals in cars); to absorb gas pollutants and trap airborne particles; to provide shade for roadways, cycleways and walkways. Trees will be used for traffic calming.

## **8 Economic**

Overseas studies have shown huge benefits provided by the urban forest when compared with management costs. This needs to be researched at a national level and the results disseminated through all levels of government and to the population.

Costs include health costs from current pollution levels (increases in respiratory problems) and benefits include the psychological ease and restorative powers that result from interaction with the natural environment. ( Frances Kuo & William Sullivan, Human Environment Research Laboratory, Uni. Of Illinois [www.herl.uiuc.edu](http://www.herl.uiuc.edu)

Value of property rises in leafy suburbs as do economic benefits for business.

## **9 Ecological**

Optimising and sustaining canopy cover percentage for particular urban densities (suburban, urban, CBD) at a national level maximizes the potential for biological diversity and ecological sustainability that are fundamental to the health of the population.

In this submission, I have included some of the elements that need to be researched and implemented at a national level so as to maximise the benefits provided by the urban forest and ensure its sustainability. I have included examples of organizations / tree managers (ref: 2.1, 2.2, 2.3, 3.4) that should be included in discussions regarding specific targets, procedures for measurement and effective strategies to ensure state-of-the-art planning and management for sustainable urban forestry in Australia.

Thank you for the opportunity to contribute.

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