



# COAST & WETLANDS SOCIETY INCORPORATED

P.O. Box A225, Sydney South, NSW 1235  
A.B.N 84 775 415 708

31<sup>st</sup> October 2003

Secretary  
House of Representatives Standing Committee on  
Environment and Heritage  
[Environment.Reps@aph.gov.au](mailto:Environment.Reps@aph.gov.au)

Dear Secretary

Inquiry into sustainable cities

Please find attached a Summary and Submission to the Inquiry.

We can be contacted at  
PO Box A225  
Sydney South 1235  
Or, during working hours  
02 93851634  
fax 02 93851635  
email [p.adam@unsw.edu.au](mailto:p.adam@unsw.edu.au)

Yours sincerely

A.Prof. P. Adam  
President

## Summary of Submission to the Inquiry into Sustainable Cities from the Coast and Wetlands Society Inc.

The majority of the submission deals with matters arising from the background paper.

The Society endorses the recognition of the importance of urban bushland. We recognize the need for continuing management to protect the values of urban bushland and suggest some matters which need to be addressed.

- the 'offsets' approach to development approvals over bushland sites
- the need to protect urban fringe agricultural land
- the importance of gardens
- the need to manage fire hazard
- the need to manage insect hazards

In relation to the terms of reference we submit that there needs to be greater public awareness of the ecological footprint of cities.

We suggest a number of ways in which the Commonwealth could play a greater role in urban development issues, and stress the importance of the Commonwealth addressing broad issues of sustainability when making decisions about the disposal of significant Commonwealth urban land holdings.

House of Representatives Standing Committee on Environment and Heritage

Inquiry into Sustainable Cities

Submission from the Coast and Wetlands Society Inc.

The Coast and Wetlands Society Inc. welcomes this opportunity to make a submission to this Inquiry.

The objects of the Society are:

- to promote the appreciation and conservation of all aspects of coast and wetland ecosystems;
- to promote the application of ecological principles in the conservation, development and utilization of coastal and wetland ecosystems;
- to advise governmental and other agencies, where the Society may be of assistance;
- to conduct research into aspects of coastal wetland ecology;
- to publish results of scientific investigations and other material designed to encourage conservation and appreciation of coastal and wetland ecology;
- to publish results of scientific investigations and other material designed to encourage conservation and appreciation of coastal and wetland ecosystems;
- to increase public knowledge and awareness of aspects of coastal and wetland ecology and conservation.

This Inquiry is relevant to the objects of the Society as the majority of the national population lives on, or close to, the coast, and because urban development, through demand for water has a major impact on water resources and wetlands, sometimes far from the urban centre.

This submission will take the form of comments on the Background Paper followed by discussion related to the terms of reference.

Our comments are particularly related to our experience in Sydney, although they would apply to urban areas more generally.

### Background paper

#### 1. Preserve bushland, significant heritage and urban green zones

The existence of bushland within the urban environment is one of the features which characterizes Australian cities, and adds to their appeal, both as places to live and as international tourist attractions. Would Sydney be as sought after a tourist destination without the bushland around the Harbour, or Perth without Kings Park?

Apart from the contribution of bushland to the aesthetic attraction of the city scape it is important to recognize that for a whole range of historic reasons Australian cities occupy distinctive biophysical environments, and in consequence support species and communities with naturally limited distributions. This is particularly evident in the case of the Cumberland Plain and the Swan Coastal Plain. As a result of urbanization there is now a number of species and communities which are recognized as threatened under state and federal legislation in these areas. Conservation of these entities is clearly an important objective. However it will place constraints on management of some areas. While in urban areas bushland will be subject to multiple use, this should not mean that the same range of activities are permitted in all public areas of bush.

Although there is increasing recognition of the importance of urban bushland the sustainability of most stands is under threat. Major threatening processes include the spread of weeds, depredations by feral and domestic animals, alterations to drainage, nutrient and fire regimes, damage to vegetation and soil from inappropriate use, and conversion to buildings or infrastructure. Protecting bushland from development will be difficult where existing, often long standing, zonings carry an expectation of development. Planning controls are matters for state governments. Historically the planning system has not served the environment well, but it is very difficult to see how the problems created by the past can be addressed without an unlikely revolution.

The nature of the ongoing threats is such that ongoing management will be required. This is a major challenge. Much public land is currently unmanaged (and the Commonwealth does not set a particularly good example in this regard), for those areas that are managed there is a heavy dependence on volunteers or on short term (grant) funding with no guarantees of the necessary long term continuing commitment. While there are notable exceptions, the majority of private urban bushland is not managed – indeed from a private landholder's perspective there may be positive advantages in promoting degradation by neglect. While incentives to not develop bushland are an attractive prospect, realistically the value of land for development will far outweigh any conceivable incentive payment. At best it may be possible make protection of particular areas a condition of consent for approval of particular sites. However, this is likely to be at the cost of further fragmentation of bushland, and will also require that long term management arrangements be put in place.

### *Offsets*

One concept that requires discussion is that of "offsets" or "mitigation". This is poorly defined and not well understood, but is gaining ground as a way of encouraging both development and biodiversity conservation. There appear to be at least two approaches given the same name. In one development at one site with particular environmental values is permitted, provided other, degraded sites with the same or similar values is rehabilitated. The other version has development approved and a replacement created elsewhere. In the

first option there is loss of area of the particular feature but improved quality of what remains. In the second case the only certainty is the loss of the site to be developed. Whether ecosystems can be recreated, and if so how long the process might take remain unknowns. Areas subject to this approach may develop important ecological values, but there is little evidence to suggest that we can create ecosystems to order. The habitat type most subject to offset proposals is wetlands, and wetland mitigation has a long history of application particularly in the United States of America, where the evidence of success is very limited.

#### *Protection of agricultural land*

An important part of the green fringe to cities is farmland. Australia does not have an excess of high quality agricultural land, but we do little to prevent its loss. Urban fringe areas are particularly important for dairying and horticultural crops. The value of production from this land can be very high, as for example around Sydney, but the value as agricultural land will always be outweighed by the value after subdivision and development. Loss of these agricultural lands extends the ecological footprint of the city, involves increased transport (with accompanying emissions) to bring produce to market, and may generate pressures to bring new areas of bushland into cultivation, with associated biodiversity losses.

The process of production loss may start with subdivision to hobby farms and horse paddocks but continues to fill urban development. It is not just a phenomenon of capitol cities but is also occurring around regional centres (such as Orange).

In the case of Sydney, the Commonwealth is in position to have a major say in decisions over the future of agricultural land. Large areas of productive agricultural land are included in the extensive holdings intended to be the site of Sydney's second airport at Badgerys Creek. As this possibility becomes less likely what will be the fate of these lands?

#### *Gardens*

Gardens provide an important component of the urban environment. What we have seen in Sydney over the past fifty years or more has been the greening of the suburbs – the development of substantial trees, forming a network of environmental corridors. Currently this trend is being rapidly reversed as urban consolidation is resulting in the destruction of many gardens to be replaced by units and townhouses.

The malevolent influence of TV life style shows is leading to replacement of many gardens by paving, lowering biodiversity values, but also reducing infiltration and increasing run-off, putting more pressure on drainage systems.

#### *Fire hazard*

Events over the last few summers have increased awareness of fire dangers. Hazard management has the potential, if conducted inappropriately, to reduce habitat values in the urban fringe. In already established suburbs it may be difficult to prevent some clearance of fire breaks, but in new development design codes to minimize fire risk and retain bushland should be implemented.

#### *Insects and disease*

Another hazard which is inadequately considered is that from arboviruses. Diseases such as Ross River Fever and Barmah Forest Disease appear to be increasing in incidence, and under a global warming scenario are likely to continue to do so. While measures can be taken to reduce interactions between humans and mosquitos they cannot be prevented altogether. Permitting developments too close to wetlands is likely, in the future, to create demand for habitat modification to reduce insect problems. This is particularly likely in the

case of coastal development, and is of considerable concern to the Coast and Wetlands Society.

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

Energy consumption is responsible for a major component of the urban ecological footprint. This is not only at the 'use' site – with greenhouse emissions, light and heat pollution etc. but also in the infrastructure required to supply energy from source.

We would be of the view that improved design standards for insulation, solar access, shading, ventilation and sustainable energy should be mandatory for new development. Where possible increased use of architectural features promoting air flow and passive cooling should be promoted over dependence on air conditioning.

Major problems arise with reducing the energy consumption of existing buildings – and consideration should be given to research into appropriate technologies and design, as well as to incentives and subsidies to ensure that the technologies are adopted.

## 3. Establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities

Management of the water cycle will be critical to sustainability. Measures to reduce water use will be essential, in the household, in the garden (for example greater use of appropriate native species) and in industry. For many purposes recycled grey water could be used to replace existing pure water. However, while it should be relatively easy (and cost efficient) to require greater sustainable use in new developments retrofitting the existing urban area will be a much more difficult task. In the older parts of cities, where some major parts of the distribution system date back to the nineteenth century, leakage is substantial, but replacement will carry substantial costs. Over many years insufficient funds have been allocated to maintenance and replacement of outdated infrastructure.

Unless there are substantial savings in per capita use of water, any further expansion of the capital cities will require, in the future, development of new storage facilities. This will have major ecological impacts on both the areas to be flooded and on down stream flow regimes.

The discharge of waste water to environment does not however necessarily represent 'a waste of what might otherwise be a valuable water resource'. Having removed water from the head of catchments, for domestic and industrial supply, downstream waste discharge may assist in maintaining ecological conditions in estuaries. What matters is the nature of the discharge, and unfortunately in many circumstances the failure to separate industrial waste water from domestic grey and blackwater does mean that wastewater discharges are damaging. However, with appropriate levels of treatment, ultimate discharge to the environment may be more a positive than a negative.

## 4. Manage and minimize domestic and industrial waste

Any waste management strategy must have two components – minimization of initial use and recycling. One of the major sources of waste is packaging. We recognize that there may be conflicting requirements (health, security etc), but much greater effort to persuade manufacturers and consumers that less package is required would be desirable. As much packaging is associated with imported goods the Commonwealth would need to be involved in international negotiations to ensure that any restrictions on packaging were not seen as being in conflict with WTO rules.

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

We agree with the argument that car dependence must be reduced, but again addressing the failings of the past will be difficult. There is a risk, in a city such as Sydney, of there being a public transport network in the inner city, new nodal networks in the outermost developing suburbs, and no, or very little, connectivity between the two parts of the system.

City transport issues are predominantly matters for state or local government. The Commonwealth does have a role through funding of those parts of the national highway system which pass through cities (for example the western Sydney orbital, currently under construction). Decisions on these major roads clearly have implications for the rest of the urban transport network.

One area where the Commonwealth has an influence is through the taxation regime. The major growth sector in the automobile markets is 4-WD vehicles. These represent excessive use of resources embodied in construction, are high users of fuel, and are inappropriate for urban driving. When used off the road for recreational use they are a major cause of environmental damage. The favourable tax treatment of these vehicles should be reviewed, and restricted only to those uses for which the vehicles are essential.

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

As indicated in other sections we strongly support the argument in this section.

One matter of concern is the increasingly short life expectancy of buildings. We are aware of major buildings which have been demolished within 25 years of construction, and of Sydney suburbs where almost every house sale is the prelude for demolition. The supply of building materials is responsible for a large part of the urban area's ecological footprint, and for Sydney, at least, building sand is an increasingly rare resource. There should be more incentives to retain and re-use rather than demolish.

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

This section should raise questions which are not addressed in the background paper. The first is the need to develop a population policy (as distinct from occasionally talking about one), which can provide a framework for long term urban and regional planning. The second major issue is the extent to which governments can and/or should direct patterns of settlement. Previous attempts at directed decentralization have not been notable successes – were our expectations unrealistic, are different approaches possible or should we simply accommodate a market driven process?

What we are facing is a co-urbanation from Wollongong to Noosa, interrupted only by national parks. Is this something we want, need or could support?

There needs to be much greater debate about options for the future, and greater public education as to the consequences (ecologically, social and economic) of particular development decisions. There is unlikely ever to be unanimity, so that ultimately political decisions will be required, but if all parties in the debate were better informed there is a greater possibility of sustainable outcomes.

## Terms of reference

### 1. Environmental and social impacts of sprawling urban development

There is currently a global trend of population movement towards cities. Australia has been well ahead of the trend – throughout the period of European settlement the population has been predominantly urban. With the exception of Queensland the majority of the population lives in or around state capitals. Currently there is, on the east coast a major growth of new coastal urban areas, but, driven mainly by immigration.

The environmental impacts are considerable, and extend far beyond the urban area. The ecological footprint of Australian cities is, on a per capita basis, large, approaching that of cities in the USA. Importantly the ecological footprint has international dimensions as some raw materials to fuel the development boom are imported. Greater awareness of the nature of our ecological requirement, and requirement for the ecological footprint to be taken into account in environmental impact assessment may assist in reducing impacts. Ultimately, however, there needs to be strong public support for changing lifestyles to reduce impacts. Top-down regulation will be unproductive unless there is a groundswell of public support. Public education and informed debate are required.

### 5. Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement.

Planning and regulation of urban development are largely matters for State and Local government, with historically little direct role for the Commonwealth.

However, we would argue that there is great scope for the Commonwealth, both directly and indirectly, to take a much greater role in developing sustainable cities. Leadership could be achieved through:

- development of a population policy.

This should recognize humanitarian obligations to refugees and migrants, but should also recognize the constraints presented by Australia's unique environment.

- support for research and development of sustainable technologies

Australia has an outstanding track record in this area, but converting good ideas and successful trials into reality is still difficult.

- reform of the taxation system

There is a trend to increase renovation and redevelopment of houses. Some of this involves increasing sustainability, but much results in larger homes, occupying larger proportions of blocks, and consuming more energy. Arguably much property is overcapitalized.

Arguably one of the factors in this is the very favorable tax treatment of the family home and the absence of death duties. To raise these issues is to open a can of worms, and we would not claim expertise in economics. Nevertheless we would argue that these issues deserve serious consideration.

- greater use of provisions of the Environment Protection and Biodiversity Conservation Act

The EPBC Act contains a number of triggers for possible involvement by the Commonwealth in determining development applications. To date very few referrals under the EPBC Act have resulted in further action by the Commonwealth. Clearly any action would need to comply with the legislation, but there is a great deal of discretion in the decision making



process, and should the Minister wish, a more proactive role for the Commonwealth could be justified with the scope of the EPBC Act.

- setting a good example

The Commonwealth is a major landholder in urban areas.

When areas are declared surplus to the needs of a particular department, the disposal process is normally driven by the budget requirements of that department rather than the broader objectives of sustainable urban development. Unfortunately in some cases the Commonwealth provides little opportunity for public involvement in the process, and on occasion even state and local government seem to be kept in the dark. [We would commend to this inquiry the Report of the Senate Foreign Affairs, Defence and Trade References Committee (2001) 'Inquiry into the disposal of Defence properties' and also the more detailed accounts in Hansard].

We acknowledge that there are instances where long term needs have been addressed – as in the Sydney Harbour foreshores defence lands, but there are many other examples where environmental matters have taken second place to short term economic gain.

We are also concerned about the failure of the Commonwealth to protect the values of urban bushland under its control. We draw particular attention to the case of Malabar Headland. This site contains important cultural heritage assets as well as bushland which includes a nationally listed Endangered Ecological Community (Eastern Suburbs Banksia Scrub). The site is “managed” by the Department of Finance and Administration. We acknowledge recent support for bush regeneration, but in general the Department has taken neither the local community or Council into its confidence over long term plans for the area, has not provided details of pollutants or the pollution control methods, nor has prevented damaged to bushland by horse riders.

If the Commonwealth wishes to promote the values of urban bushland then it needs to lead by example, instead of trying to hide behind Commonwealth exemptions from state laws and policy.

- other initiatives

The Commonwealth could invest in urban sustainability by providing grants and other support for demonstration projects, providing funding for energy efficient alternative public transport systems and particularly by providing community education about sustainability.

If this Inquiry results into a more proactive involvement by the Commonwealth in urban development issue then it will have achieved an important outcome. There have been plenty of reports and discussions on the need for sustainability in urban development – but these need to become more than just words, however well intentioned and logical they may be.

Paul Adam  
President  
On behalf of CAWS

31<sup>st</sup> October 2003

