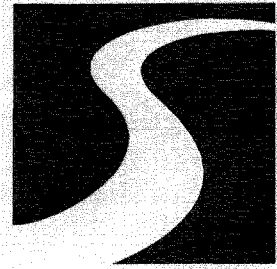


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Submission to House of Representatives Standing Committee on Environment and Heritage, Inquiry into Sustainable Cities 2025

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Nowhere is the challenge of Ecologically Sustainable Development (ESD) more acute than in our cities, where the majority of Australians live and work. Ensuring sustainable patterns of development of cities will be a challenge of growing importance and difficulty for Australian governments over the coming years.

Addressing the Terms of Reference

Three of my reports are attached to support the positions outlined in this submission. A brief response to each of the Terms of Reference is provided below and a brief description of each report follows.

1. The environmental and social impacts of sprawling urban development

The environmental and social impacts of sprawling urban development are many and varied. History demonstrates that these impacts can be minimised by sound planning, foresight and the adoption of bold and innovative programs of environmental asset protection and infrastructure development. For example, our work on water quality and catchment management demonstrates the significant benefits arising from decisions to dedicate Melbourne's water supply catchments to water supply.

Australian and international work on the impacts of urbanisation consistently demonstrates that allowing further urban sprawl on the fringes of large cities generates a wide range of significant social and environmental impacts. While the societal value of ensuring affordable housing should not be underestimated, it is also important to recognise that poor planning decisions frequently result in isolated "poverty traps" on the peripheries of our large cities, where transport costs are high and social infrastructure often poor.

There is considerable justification in Australian governments collectively adopting policy frameworks which supports far more active and planned interventions in urban development. The work I did examining the need to rethink planning – The ESD of Subdivision is attached (Attachment 1). It is one of the most comprehensive analyses of the environmental impacts of urbanisation on the fringe of Sydney and the importance of locational aspects of planning decisions. It was based on analysis of a real conflict regarding proposed subdivision. It demonstrates the need to overhaul Australian urban planning systems so that they more coherently address the challenges of ecologically sustainable development.

The nature of the environmental impacts of urban development are addressed generally in all three attachments. Attachment 1 investigates the specific impacts of continuing urban sprawl and how to develop more sophisticated and appropriate planning frameworks. Attachment 2 looks at the general range of environmental issues and responses in Australia's urban areas and Attachment 3 focuses specifically on the effects of development on water quality and how these are being addressed in cities in Australia and overseas.

2. The major determinants of urban settlement patterns and desirable patterns of development for the growth of Australian cities

The environmental and development challenges facing our cities are immense. Environmental quality continues to decline on many counts - increasing air and water pollution indicate that all is not well. Unfortunately, there are few signs of real reform on the scale required, in the processes and institutions that drive these patterns of settlement.

In all of Australia's major cities dormitory suburbs continue to sprawl over farmland and bushland at the metropolitan fringes, or around satellite urban centres up to several hours car travel from the CBD. To accommodate this "growth", freeway networks are being ploughed through established suburbs, or along creeks and rivers in order to link growth corridors.

Despite the impressive engineered infrastructure servicing our cities, the quality of our lives is still very dependent on a range of indispensable ecosystem services, like those that deliver water and air, or disperse and assimilate pollution.

The population of Australia's biggest city, Sydney, is expanding rapidly, predicted to grow by over one million people in the next 25 years. To date, much of the growing population has been housed in new or expanding suburbs on the urban fringe - the edge where city meets bush or farmland.

It is at the urban fringes that Australian suburban development has its bluntest expression. Land is usually converted to housing estates little different to the low density suburbs of the last forty years. Car dependency and intensive use of land, water and energy are the consequences of these development decisions that will last for generations. The physical development patterns are literally set in concrete, and it is these that determine many aspects of our suburban lives.

The oil crises of the 1970s indicated that our sprawling cities faced important development choices. Over 20 years later the choices are still clear. On one hand, we can uncritically follow the profligate natural resource consumption patterns of the past; on the other, we can redesign our development and consumption patterns to meet the many challenges of ESD.

Ecologically Sustainable Development policies have been adopted by governments throughout the world due to increasing global recognition of the fundamental links between social and economic well being and a healthy environment. These policies attempt to give substance to the idea that *"Humanity has the ability to make*

development sustainable - to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs."(World Commission on Environment and Development 1987.)

A new ESD-based approach to determining appropriate settlement patterns is required. A means of developing such an approach and using it to assess desirable urban development is documented in Attachment 1.

3. A 'blueprint' for ecologically sustainable patterns of settlement, with particular reference to eco-efficiency and equity in the provision of services and infrastructure

While a blueprint is desirable, the fundamental issues for governments are ensuring that the policy settings stimulate innovation and adoption of practices which generate eco-efficiency and sustainable settlement patterns. My report, *The ESD of Subdivision*, addresses the many aspects of efficiency including a framework for determining biodiversity, energy and infrastructure utilisation and related issues. I draw your attention to sections 3 and 4 of this report which link ESD and urban planning processes.

The physical form of Australia's cities demonstrates that improvements in the quality of planning and decision making processes are required, if these processes are going to be able to incorporate ESD principles.

ESD demands that a wide range of social, economic and environmental factors are actively considered, yet many decision making processes are confounded by the complexity involved in applying ESD policies to specific sites or development proposals. Planning and development assessment processes have not proven to be readily able to incorporate this complexity and thus, the transfer of policy to practice has been problematic in many sectors. Achieving the processes and planning frameworks which result in sound urban planning decisions should be considered an important test case of ESD policies.

ESD principles have been debated extensively and find expression in numerous strategies, but their practical application has been limited by a range of cultural and institutional factors (Dovers 1996). ESD policies and strategies articulate goals and approaches for achieving healthy cities, sustainable urban landuse and urban form, water quality, catchment management and the protection of biodiversity.

National commitments include:

- The National Strategy for Ecologically Sustainable Development (C'wth 1991a);
- The National Water Quality Strategy (C'wth 1992b); and
- The National Strategy for the Conservation of Biodiversity (C'wth 1994).

In contrast to the enthusiasm with which governments around Australia, and the world, have stated their endorsement of ESD policies, the implementation of these ESD policies is proving slow and difficult. This is because the attempt often confronts values and assumptions, threatens vested interests and lowers expectations of profit. Thus the status quo can slow the necessary reform processes needed to deliver the stated goals of the policies.

The landuse planning and urban development industries with their attendant professions, plus those government agencies responsible for planning and land development must be recognised as potentially one of the major sources of the inertia. This is exacerbated by 'institutional capture'¹. The relationship between the planning professionals and development industries and the State and local agencies responsible for urban development is established to such an extent that it could be described as mutually co-dependent. Professional cultures or guild connections are likely to remain a powerful influence. The increasing tendency to remove decisions from public scrutiny through appeals to technocratic or professional complexity or through the use of jargon runs contrary to the ESD principles of public participation and partnership with the community. The planning dispute in Hornsby over subdivision of urban fringe bushland provides an example of how direct public involvement is a necessary complement to any ESD planning process (this is more fully documented in Attachment 1).

Opportunities for public participation can be broadly categorised as:

- Direct involvement - direct action etc;
- Surrogate involvement through representative bodies; and
- Representative democracy through the political process at local, state and national levels.

The political dynamics of the urban planning and land development sector are changing as a result of the involvement of vocal, independent community groups. The Hornsby example demonstrates the importance of community involvement in bringing about change. Action by community groups means that decision makers can be brought to account.

Improving urban form - consolidation and fringe expansion

The traditional "quarter acre block" remains the dominant model on the outskirts of Australia's major cities. This is despite the enthusiasm of planners and policy makers, and sympathetic policies by government supporting urban consolidation.

Urban consolidation - increasing the density within existing areas - has been hailed as the major alternative to relentless sprawl, but in Australian cities both are now occurring simultaneously. There are still large numbers of new fringe estates, while increasing numbers of high and medium density housing are being built in the established areas.

Alternatives to the traditional urban form of the low density suburb have been recognised as an important solution to several interrelated ecological and economic concerns (Newman and Kenworthy 1992). Some of these concerns include:

- Costs of providing and maintaining urban infrastructure;
- Efficiency of public transport systems;
- Impacts on urban periphery catchment and land management;
- Demand on limited land resources;
- Reliance on private motor vehicles and damaging CO₂ and pollution emissions;
- Dependence on imported fossil fuels and therefore pressure on balance of payments;
- Urban isolation and scope for community contact; and

¹Institutional capture refers to the situation which can develop when an industry and its regulators develop such a close and well-established relationship that the regulatory agency fails to protect the wider public interest and sees industry advancement as its primary duty. Thus, it is "captured" by an industry.

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- The need for greater diversity of housing stock as national demographics change.

Policies supporting urban consolidation have been readily adopted by governments because of its capacity to address these kinds of ecological and economic concerns. However, while urban expansion on the fringe continues as a major component of Australia's housing stock a more rational approach to land allocation based on comprehensive assessment is required.

Bushcare, landcare and the changing planning context

The planning context is ever changing and new and emerging policies and community expectations must be debated and accommodated.

These changed conditions provide opportunities to examine fresh solutions to the Hornsby dispute. The resolution of the disputed development sites is not simply a matter of fine tuning the design or installing better remediation technology such as improved storm water management systems.

An understanding of the changing planning context and societal expectations is called for so that more appropriate planning processes are installed.

The context in which the current dispute in Hornsby has arisen is characterised by:

- Continuing commitments to ecologically sustainable development and greenhouse gas reduction outlined in numerous national, state and industry strategies;
- Ongoing controversy about future urban plans for the Sydney region;
- Changing demographic and consumption patterns eg: increasing demand for inner urban apartments, smaller families etc;
- Increasing interest in urban vegetation; and the rise of the bushcare movement; and
- Major efforts to improve the health of the Hawkesbury Nepean River system and the Berowra Creek and estuary as expressed in the various TCM strategies and the Statement of Joint Intent (Berowra CMC 1994).

Two social movements - bushcare and catchment management - are worth describing briefly because they indicate the rise of new community values and aspirations. They also demonstrate the power of voluntary activism in environmental management. In many ways they are urban parallels to the growth of landcare groups. Heightened environmental awareness has changed the dynamics of land management and environmental policies and practices in Australia. This is highlighted by the enormous increase in conflicts over managing land, water and biological resources sustainably.

Community enthusiasm for urban bushland is evidenced by the hundreds of bushcare groups in the Sydney region (90 in the Hornsby Shire alone) and the active interest and involvement in catchment care and water quality projects. Public appreciation of Australia's unique native flora is escalating as increasing numbers of people recognise the utility, biological and aesthetic value of native bush. Bushcare, with its potential to contribute to environments at a local and landscape scale, has become a focus for many people searching for achievable solutions within their direct sphere of influence.

Controversy about environmental management, including controversy about the management of the Hawkesbury Nepean River system, has been endemic for the last decade. The rise of the TCM movement is recognition of the seriousness of the

problems and a community government partnership aiming to address them. To honour these partnerships all arms of governments must be consistent in their actions.

National and global trends which have implications for ESD

The planning context not only changes because of various community transitions described above but also due to global and national changes. ESD principles require consideration of the global perspective and while we recognise that the frameworks aim to address local and regional planning issues this cannot, or should not, be done without due consideration of the wider dimensions of decisions. For this reason we describe briefly below some of the broader trends which will influence planning decisions and which should be considered when using the frameworks.

International trends include:

- GATT, 'free' trade, increasingly rapid information transfers and the increasing globalisation of the world economy, including the increasing influence of transnational corporations and globally mobile capital, all with implications for the type of investment likely in Australia.
- Global population growth, leading to increasing use and scarcity of resources and consequent pollution. This has many implications for large urban conglomerates, like Sydney.
- The increasing importance of international treaties, including global treaties on biodiversity and greenhouse as these are directly affected by urban expansion.
- A suite of possible changes resulting from greenhouse-induced climate change: greater severity of storms and runoff events, more floods, higher average temperatures, these have implications for factors such as building and road siting requirements, runoff rates, pest plant and animals, and fire risks.
- The increased movement of biologically active material around the world: plants, microbes, insects, etc. increases the likelihood of new pests and diseases (French 1993).

Significant national trends include:

- Decline in the health and integrity of river and catchment systems. The capacity of urban planning instruments to strategically locate or limit urban expansion in sensitive parts of catchments is being actively investigated in some catchments.
- The increasing recognition of the importance of native vegetation for biodiversity conservation, and corresponding attempts to regulate clearing, and the increasing recognition of the importance of bushland and other natural places in the protection of Australia's unique flora and fauna, including threatened species.
- Greater community involvement and appreciation of the bushland in, or close to major cities, leading the explosive growth in the bushcare groups (over 700 in the Sydney area).

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- Increasing community concerns about the sustainability of urban expansion on the fringes of our cities.

4. Measures to reduce the environmental, social and economic costs of continuing urban expansion

Attachment 1 *The ESD of Subdivision*, develops an ESD-based planning framework for reducing the undesirable impacts of urban expansion.

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

The Commonwealth government needs to exercise leadership to induce urban development reform. The directions that are set are of national strategic significance. They will literally set in concrete patterns of consumption for the foreseeable future. A COAG-based agreement on urban form and settlement patterns which empowers the utilisation of strategic and statutory planning controls, as well as other policy mechanisms is required in order to enhance state and local governments' capacity to ensure sustainable patterns of settlement.

The Commonwealth needs to recognise the significant natural resource and environmental issues that need to be actively managed within our urban and peri-urban catchments. For example, the health of urban waterways, bays and estuaries is of major significance to millions of Australians. Aquatic environments like Port Phillip Bay and Moreton Bay are significantly stressed and programs to understand their ecology and improve their health require ongoing Commonwealth support. Most Commonwealth environment programs have been structured to address rural environmental issues. Without dismissing the importance of these, it is critical that the unique and complex circumstances pertaining to urban catchments are recognised.

The following reports are attached as part of Alexandra & Associates' submission to the House of Representatives Standing Committee on Environment and Heritage:

Attachment 1: **Alexandra & Associates Pty Ltd, 1998, *The ESD of Subdivision - An Assessment Framework for Urban Development*, for the Total Environment Centre, Sydney.**

This report articulates an ESD based assessment framework for urban development. The framework is intended to inform planning and decision making processes, and help define the kinds of development consistent with internationally agreed ESD principles.

Attachment 2: **Alexandra, J. and Thomas, J. 1999, *NHT Mid-Term Thematic Review of Urban Environments Overview Paper*, for PPK Environment and Infrastructure Pty Ltd**

The purpose of this report is to evaluate the NHT's impact on the urban environment. It provides an overview of the challenges of urban environmental management in Australia. It examines the extent to which the goal and three objectives of the NHT are being met in

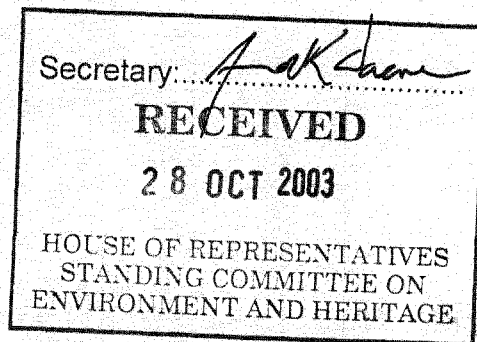
urban areas and makes recommendations for improvement to the NHT funded activities in the future.

Attachment 3: Alexandra & Associates Pty Ltd 2002, *Neutral Or Beneficial Effect Assessment Report* undertaken for the Total Environment Centre, Sydney as part of the Sydney Catchments Project

This report examines national and international approaches to managing the impacts of urban development on water quality. It investigates and assesses the NorB Assessment Guidelines which are an instrument supporting the Regional Environmental Plan (REP) under development by PlanningNSW for the Sydney Drinking Water Catchments. The Guidelines aim to provide direction in using development control processes to protect water quality within the existing catchment management, statutory planning and environmental protection framework operating in NSW.

REFERENCES

Comprehensive reference lists are provided in the Attachments.



ADDITIONAL INFORMATION HELD BY THE SECRETARIAT

ATTACHMENT TO SUBMISSION No. 22

- 1. ALEXANDRA & ASSOCIATES PTY LTD, 1998, THE ESD OF SUBDIVISION- AN ASSESSMENT FRAMEWORK FOR URBAN DEVELOPMENT, FOR THE TOTAL ENVIRONMENT CENTRE, SYDNEY.**
- 2. ALEXANDRA, J. AND THOMAS, J. 1999, NHT MID-TERM THEMATIC REVIEW OF URBAN ENVIRONMENTS OVERVIEW PAPER, FOR PPK ENVIRONMENT AND INFRASTRUCTURE PTY LTD**
- 3. ALEXANDRA & ASSOCIATES PTY LTD 2002, NEUTRAL OR BENEFICIAL EFFECT ASSESSMENT REPORT UNDERTAKEN FOR THE TOTAL ENVIRONMENT CENTRE, SYDNEY AS PART OF THE SYDNEY CATCHMENTS PROJECT**